

A 2022 REVIEW OF THE FARM BILL

HEARINGS

BEFORE THE

SUBCOMMITTEE ON CONSERVATION AND FORESTRY

AND THE

SUBCOMMITTEE ON COMMODITY EXCHANGES,
ENERGY, AND CREDIT

AND THE

SUBCOMMITTEE ON BIOTECHNOLOGY,
HORTICULTURE, AND RESEARCH

AND THE

SUBCOMMITTEE ON LIVESTOCK AND FOREIGN
AGRICULTURE

AND THE

SUBCOMMITTEE ON NUTRITION, OVERSIGHT, AND
DEPARTMENT OPERATIONS

AND THE

SUBCOMMITTEE ON GENERAL FARM COMMODITIES
AND RISK MANAGEMENT

AND THE

COMMITTEE ON AGRICULTURE

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

FEBRUARY 2, 2022; MARCH 1, 8, 16, 29; APRIL 5, 6, 28; JUNE, 8, 9, 14,
22; JULY 13, 14, 20; SEPTEMBER 15, 20, 29, 2022

Serial No. 117-27



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PART 1

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¹ Resigned from Congress April 1, 2022.

² Deceased February 18, 2022.

³ Elected to Committee May 11, 2022.

⁴ Resigned from Committee May 13, 2022.

⁵ Resigned from Congress May 25, 2022.

⁶ Elected to Committee June 14, 2022.

⁷ Elected to Committee September 13, 2022.

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¹⁰ Appointed to Subcommittee September 13, 2022.

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A 2022 REVIEW OF THE FARM BILL
(CONSERVATION PROGRAMS)

WEDNESDAY, FEBRUARY 2, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSERVATION AND FORESTRY,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:03 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Abigail Davis Spanberger [Chair of the Subcommittee] presiding.

Members present: Representatives Spanberger, Pingree, Kuster, O'Halleran, Panetta, Schrier, LaMalfa, DesJarlais, Allen, Kelly, Johnson, Miller, Moore, and Thompson (*ex officio*).

Staff present: Paul Babbitt, Prescott Martin III, John Busovsky, Patricia Straughn, and Dana Sandman.

OPENING STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER,
A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

The CHAIR. This hearing of the Subcommittee on Conservation and Forestry entitled, *A 2022 Review of the Farm Bill: Conservation Programs*, will come to order. Welcome, and thank you for joining today's hearing. After brief remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions.

Good morning to our witnesses, and welcome to today's hearing to update Members on the status and operation of NRCS and FSA conservation programs. We are here today to examine how America's voluntary conservation programs are working for producers, how investments in USDA's conservation programs are addressing our resource needs, and how these programs can be utilized to help address the climate crisis.

This hearing presents an opportunity for us to discuss what is working and what can work better as we look ahead to the 2023 Farm Bill.

I would like to welcome both Chief Cosby and Administrator Ducheneaux to the Subcommittee today. I know Subcommittee Members on both sides of the aisle are looking forward to hearing your updates as to how the programs that you oversee are working for farmers, ranchers, and foresters across the nation.

Your agencies have been hard at work, and Administrator Ducheneaux, I would like to first mention the work you are doing to get folks enrolled in CRP through a new signup and to expand CREP by enabling negotiations of matching funds. And Chief

Cosby, I know that January has been a big month for NRCS, and I commend all that you are doing to expand access to conservation across the country. Your announcement of 118 new Equity Conservation Cooperative Agreements shows a commitment to bringing the benefits of conservation to historically underserved communities.

In addition, I am especially excited about the work that NRCS is doing to expand available resources for farmers embracing climate-smart agriculture. Farmers are the original conservationists, and there is so much we can learn from our growers and producers on how to combat the climate crisis.

That is why I am proud to be the sponsor of the bipartisan Growing Climate Solutions Act (H.R. 2820). Our legislation is supported by nearly every major American farm group, as well as many major environmental groups and Fortune 500 companies, not to mention, many growers and foresters across Virginia's 7th District.

In a time when bipartisanship is hard-earned, this bill stands as a testament to how we can work together for our constituents, if only we are willing to come to the table in good faith and set partisanship aside. This legislation passed the Senate last year on a vote of 92 to 8, and it is long past time for the House to follow suit and do right by our farmers, rural America, and our planet.

Today, I am thrilled that the USDA is already taking bold steps to bring farmers to the table on climate-smart agriculture. NRCS's recent announcement that EQIP conservation incentive contracts will be available nationwide, and that the USDA will be launching a new streamlined cover crop program demonstrates the agency's commitment to making it easier for farmers to work to address climate concerns while benefitting their bottom lines.

In addition to your update to CSP that allows producers to immediately re-enroll the following year, it is a great step towards making it easier for producers to participate.

Finally, the \$225 million investment in RCPP will enable more investments that leverage partner dollars and participation. All of these programs deliver on-the-ground resources that help us mitigate and adapt to climate change, and benefit our producers.

I am eager to hear more about the changes that you all are making and your plans for the future.

[The prepared statement of Ms. Spanberger follows:]

PREPARED STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER, A REPRESENTATIVE IN
CONGRESS FROM VIRGINIA

Good morning—and welcome to today's hearing to update Members on the status and operation of NRCS and FSA conservation programs.

We are here today to examine how America's voluntary conservation programs are working for producers, how investments in USDA's conservation programs are addressing our resource needs, and how these programs can be utilized to help address the climate crisis. This hearing presents an early opportunity for us to discuss what is working and what can work better as we look ahead to the 2023 Farm Bill.

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that you are doing to expand access to conservation across the country. Your announcement of 118 new Equity Conservation Cooperative Agreements shows a commitment to bringing the benefits of conservation to historically underserved communities.

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Today, I am thrilled that USDA is already taking bold steps to bring farmers to the table on climate-smart agriculture. NRCS' recent announcement that EQIP Conservation Incentive Contracts will be available nationwide and that the USDA will be launching a new, streamlined EQIP cover crop program, demonstrates the agency's commitment to making it easier for farmers to work to address climate concerns while benefiting their bottom-lines. In addition, your update to CSP that allows producers to immediately re-enroll the following year is a great step toward making it easier for producers to participate. Finally, the \$225 million investment in RCPP will enable more investments that leverage partner dollars and participation.

All of these programs deliver on the ground resources that help us mitigate and adapt to climate change.

I am eager to hear more about these changes and your plans for the future.

With that, I look to the Ranking Member, Mr. LaMalfa of California, for his comments.

The CHAIR. And with that, I look to the Ranking Member of the full Committee for his opening comments.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, thank you, Chair Spanberger, and I think hopefully Ranking Member LaMalfa is going to be able to join us here virtually momentarily. Thank you both for holding today's hearing.

It is hard to believe that it has already been just over 3 years since the 2018 Farm Bill, when the bill was signed into law. Today begins the process of reviewing the implementation of the farm bill, allowing Members the opportunity to hear how program changes are working, and ensuring these changes are being administered as Congress intended. This is an immensely important responsibility of this Committee, oversight, and review of each title must be completed before we can even begin to contemplate the next farm bill reauthorization.

As a former Chairman of this Subcommittee, I am excited to kick off this process by reviewing conservation programs. I have long appreciated great benefits that locally led, incentive-based voluntary conservation provides for both the environment, agriculture producers, the economy as an effective tool for de-listing endangered species, and climate. All great outcomes as a result of these great conservation programs that we have codified over the years.

Now, during the writing of the 2014 Farm Bill when I chaired this Subcommittee, there was a concerted effort to strengthen, simplify, and streamline our conservation programs, and since then, including the 2018 Farm Bill, this Committee provided further re-

forms to increase the financial support and improve the delivery of these programs to producers.

Now, I would have to say that it must remain the conservation title and not be repurposed as the climate title. I think sequestering greenhouse gases is an obvious outcome of our conservation programs. That is why American farmers, ranchers, and foresters are climate heroes. They really lead the way in the world on the issue of climate and sequestering over 6.1 gigatons of carbon annually, far more than what is emitted in that vast land space of what is considered all under the title of natural land solutions. But it must be the conservation title.

While a number of conservation programs can clearly provide climate benefits, as I have discussed, the broad emphasis of Title II and its programs must remain on the proven conservation practices that will directly benefit the producer and support the sustainability of American agriculture.

With that in mind, I remain concerned over a rush to implement some of the climate-related proposals through farm bill programs, or administratively by USDA before being fully vetted by this Committee. The agriculture portion of the Build Back Better (Pub. L. 117–169) is just one example of pursuing questionable policies with significant funding through the Agriculture Committee without any vetting to any degree or considering long-term impacts of such action. Our conservation programs are critical for the sustainability of our farms and ranches, and as such, long-term changes should be made through thoughtful consideration by this Committee.

With all this in mind, I am really pleased that we are holding today's hearing, and that we are finally beginning the oversight process of the 2018 Farm Bill, ensuring programs are implemented as Congress intended.

Chief Cosby and Administrator Ducheneaux, thank you both for participating today and being here. Your leadership is much appreciated and we look forward to your testimony.

And with that, Madam Chair, I yield back.

The CHAIR. Thank you, Mr. Ranking Member, and I want to just express my appreciation that you so consistently come to our Subcommittee hearings. I think that speaks to the importance that you put on this issue, so I appreciate you being here.

I am looking now to confirm that we are going to move forward with the witnesses testimony, and I will invite the Ranking Member of the Subcommittee to give his opening remarks when he is able to join us. Again, there were some travel challenges and I greatly recognize sometime the challenges facing our West Coast Members. So, he will join us when he is able.

And with that, I would also request that other Members submit their opening statements for the record so that witnesses may begin their testimony and ensure that there is ample time for questions.

So, I am pleased to welcome two distinguished witnesses to the Committee today. Our first witness is Mr. Zach Ducheneaux, the Administrator of the Farm Service Agency, and our second witness is Mr. Terry Cosby, the Chief of the Natural Resources Conservation Service. You will have 5 minutes to deliver your testimony.

There is a timer that is visible before you. It will count down to 0, at which point your time has expired.

So, Mr. Ducheneaux, I welcome you to begin first. Please begin when you are ready.

STATEMENT OF ZACH DUCHENEUX, ADMINISTRATOR, FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. DUCHENEUX. Good morning. Chair Spanberger, Ranking Member LaMalfa, and distinguished Members of the Subcommittee. It is an honor and privilege to appear before you, today. To those I have not yet had the pleasure of meeting, my name is Zach Ducheneaux and I am the Administrator of the Farm Service Agency. Prior to joining the Farm Service Agency, I was a third-generation rancher on my family's operation on the Cheyenne River Sioux Indian Reservation.

While folks don't always think of the Farm Service Agency, as a conservation-focused agency, our Conservation Division oversees several programs that protect our drinking water, improve soil health, reduce erosion, preserve wildlife habitat, and restore forests and wetlands for future generations. Our emergency conservation programs also support producers whose operations are damaged by natural disasters.

I have always appreciated FSA's commitment to voluntary, producer-focused, working lands conservation, and I am committed to maintaining those key pillars in our conservation programs. At the same time, we have a unique opportunity to expand, and in some cases, reimagine these programs to bring in new and diverse partners, better address the climate crisis, and invest in the long-term health of our land and the producers who care for it.

In my written testimony, I have highlighted FSA's key conservation programs, and today I would like to share some of the changes and updates we have implemented, since I have become Administrator.

The Conservation Reserve Program is FSA's flagship conservation program and is one of the largest private lands conservation programs in the United States. Through CRP, FSA provides program participants with an annual rental payment in exchange for removing environmentally sensitive land from customary agricultural production and planting long-term resource conserving species. Last year, we made several improvements to increase producer interest and enrollment in CRP, while strengthening the climate benefits of this program. Specifically, we adjusted soil rental rates, where data supported such an adjustment, increased payments for practice incentives, and increased payments for water quality practices. We also added the climate-smart practice incentive for CRP general and continuous signups to better leverage this program towards climate outcomes, including carbon sequestration.

Our changes to CRP have already begun to pay off. Last year, producers and landowners enrolled 5.3 million acres through signups, turning the tide of declining enrollment from the previous 4 years. The total signup of 5.3 million acres surpassed USDA's 4 million acre goal, and reversed the trend of decreasing enrollment,

and we are especially happy with our signup for the Grasslands Program, 2.6 million acres.

Also in my written testimony, I provided information on several key conservation programs under the CRP umbrella, but given the limited time today, I want to focus on the Conservation Reserve Enhancement Program and the changes we made there that will further inspire public-private partnership and also work more with our underserved communities, including Tribal Governments.

I want to take a moment or two to discuss two of our disaster assistance programs that are housed within FSA's Conservation Division. First, the Emergency Conservation Program provides assistance to farmers to repair damage caused during natural disasters. In response to the drought, we expanded our policies to allow producers of livestock to use portable pumps to better distribute grazing in their overtaxed property because of the drought. Second, the Emergency Forest Restoration Program provides payments to owners of non-industrial private forests to carry out emergency measures and to restore land damaged by natural disasters. In Fiscal Year 2021, we allocated \$56.9 million to critical EFRP assistance, as well as \$140 million to the Emergency Conservation Program.

In closing, I want to take this opportunity to express my gratitude and admiration for the entire USDA workforce, especially the team that I get to work with at the Farm Service Agency. There isn't a farmer or rancher in the country that would be disappointed at the caliber and quality of work of those I get to surround myself with every day, and I make sure that I give them the proper credit they deserve. In the last 2 years, we have delivered nearly double our normal program allocations, and done so oftentimes home-schooling our children in the background. So, we really want to take our hats off to that staff, let them know we appreciate the good work, and also, thank the Committee and the Congress for the opportunity that we get to deliver the programs that you authorize and fund for us to carry out to improve outcomes for our producers all across the country.

Thank you.

[The prepared statement of Mr. Ducheneaux follows:]

PREPARED STATEMENT OF ZACH DUCHENEUX, ADMINISTRATOR, FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chair Spanberger, Ranking Member LaMalfa, and distinguished Members of the Subcommittee, it is an honor and privilege to appear before you today. To those who I have not yet had the pleasure of meeting, my name is Zach Ducheneaux, and I am the Administrator of the U.S. Department of Agriculture's Farm Service Agency. Prior to coming on board at the Farm Service Agency, I was a third-generation rancher on our family ranch on the Cheyenne River Sioux Reservation.

While this is my first formal appearance before your Subcommittee, over the past year since I was sworn in, I have enjoyed the opportunity to speak with many of you and your staff, along with farmers and ranchers in your districts across the country. I am grateful to have the opportunity to visit with you today and share our vision at the FSA to expand upon our conservation programs.

While folks don't always think of the Farm Service Agency as a conservation-focused agency, our Conservation Division oversees several programs that protect our drinking water, reduce soil erosion, preserve wildlife habitat, restore forests and wetlands, and improve soil health for future generations. Our emergency conservation programs also support producers whose operations are damaged by natural disasters.

I have always appreciated FSA's commitment to voluntary, producer-oriented, working lands conservation. I am committed to maintaining those key pillars of our

conservation programs. At the same time, we have a unique opportunity to expand, and in some cases, reimagine these programs to bring in new and diverse partners, better address the climate crisis, build resilience for our agricultural producers, and invest in the long-term health of our land and the producers who care for it.

In my testimony today, I'd like to highlight some of our key conservation programs, along with some of the changes and updates we have implemented since I've become Administrator.

Farm Bill Program Implementation of FSA Conservation Programs

The Conservation Reserve Program (CRP) is one of the largest voluntary private lands conservation programs in the United States. Through CRP, FSA pays producers a yearly rental payment in exchange for removing environmentally sensitive land from agricultural production and planting species that will improve environmental quality and address issues raised by state, regional, and national conservation initiatives. The long-term goal of the program is to reward producers who reestablish valuable land cover, which in turn helps conserve and improve soil and water quality, prevent soil erosion, and reduce the loss of wildlife habitat. Contracts for land enrolled in CRP are generally from 10 to 15 years in length.

There are several ways for producers to participate in CRP, including through our grassland enrollments, our general signup, and our continuous signup. Last year, producers and landowners enrolled 5.3 million acres through CRP signups, including nearly 2.6 million in the grassland signup, nearly 1.9 million acres for the general signup, and 902,000 acres for the continuous signup (as of September 10, 2021). This year's signup surpassed USDA's 4 million acre goal.

In accordance with the 2018 Farm Bill, in Fiscal Year 2021, CRP was capped at 25 million acres, and in Fiscal Year 2022, CRP is capped at 25.5 million acres. In Fiscal Year 2023 the maximum acreage enrollment will increase to 27 million acres. Now, despite Congress raising the CRP enrollment targets in the 2018 Farm Bill, there was a decrease in enrollment for the past 2 years. As a priority last spring, we took a hard look at CRP and made changes to put us on a path to reverse this trend. In order to increase producer interest and enrollment, FSA adjusted soil rental rates where data supported such an adjustment, increased payments for practice incentives, and increased payments for water quality practices. We also added a Climate-Smart Practice Incentive for CRP general and continuous signups to better leverage this program toward climate outcomes, including carbon sequestration. Climate-Smart CRP practices include the establishment of trees and permanent grasses, the development of wildlife habitat, and wetland restoration. The Climate-Smart Practice Incentive is annual, and its amount is based on the benefits of each practice type.

Additionally, we established a grassland CRP minimum rental rate. The grassland CRP program helps landowners and operators protect grassland, including rangeland and pastureland, and certain other lands, while managing these lands under an NRCS-approved grazing management plan that are designed to ensure these working lands provide biodiversity of plant and animal populations and improve environmental quality, while positively contributing to the economy of the region. FSA updated the grassland CRP signup in Fiscal Year 2021 to establish a minimum rental rate of \$15 per acre that increased rental rates in 1,300 counties across the nation. FSA also established National Grassland Priority Zones that aim to increase enrollment of grasslands in migratory corridors and environmentally sensitive areas.

Haying and grazing of CRP acres is authorized under certain conditions to, among other things, improve the quality and performance of the CRP cover, or to provide emergency relief to livestock producers due to certain natural disasters. There are two types of haying and grazing authorizations: emergency and non-emergency. Emergency haying and grazing of CRP acres may be authorized to provide relief to livestock producers in areas affected by severe drought or other natural disasters. During the 2021 program year, 1,181 counties in 23 states became eligible for CRP emergency haying and grazing.

Through CRP, producers can also enroll land in FSA's Farmable Wetlands Program (FWP). FWP is designed to restore previously farmed wetlands and wetland buffers to improve both vegetation and water flow. FWP is a voluntary program to restore up to 750,000 acres of farmable wetlands and associated buffers. Participants must agree to restore the wetlands, establish plant cover, and to not use enrolled land for commercial purposes. Plant cover may include plants that are partially submerged or specific types of trees. FSA runs the program with assistance from other government agencies and local conservation groups.

Additionally, FSA announced efforts to enhance natural resource benefits through CRP by moving the highly popular State Acres for Wildlife Enhancement (SAFE)

practices from general signup to the continuous CRP signup. Unlike the general signup, producers can sign up year-round for the continuous signup and be eligible for additional incentives. FSA also made Highly Erodible Land Initiative (HELI) practices available in both the general and continuous signups.

Notably, we also expanded both the CRP's Soil Health and Income Protection Program (SHIPP) and the Clean Lakes, Estuaries and Rivers (CLEAR30) 30 year contracts, in addition to investing \$10 million in the CRP Monitoring, Assessment and Evaluation (MAE) program, that will enlist partners and establish an ambitious effort to measure and monitor the soil carbon and climate resilience impacts of conservation practices through soil sampling and testing on land enrolled in over the life of CRP contracts.

The last component of CRP that I'll highlight is the Conservation Reserve Enhancement Program (CREP). CREP targets specific locally-driven conservation concerns, and Federal funds are supplemented with non-Federal funds. We currently have CREP Agreements in 26 states, and these partner-led efforts are driving important environmental outcomes. In exchange for removing environmentally sensitive land from production and establishing permanent resource-conserving plant species, farmers and ranchers are paid an annual rental payment along with other Federal and non-Federal incentives as applicable per each CREP agreement. Participation is voluntary, and the contract period is typically 10–15 years.

In a rule published December 13, 2021, FSA updated two discretionary requirements found to be adversely affecting participation in CRP. The first change amended a requirement that CREP partners provide at least half of their matching funds in the form of direct payments to participants. As a result of this change, partners may now provide matching funds in any combination of cash, in-kind contributions, or technical assistance. In the second change, FSA eliminated a 25 percent payment reduction for land required to be in compliance with resource conservation measures or practices required by Tribal, state, or other local laws, ordinances, or regulations. We made this change to increase enrollment of acres under CRP not only through the enrollment of acres subject to existing state regulations, but also contiguous acres eligible for complimentary practices.

FSA has added three regional staff serving the eastern, central, and western regions to improve the efficiency and effectiveness of engagement with potential CREP partners to promote conservation initiatives. FSA continues to expand outreach efforts to encourage participation across the board in all components of CRP.

Next, I would like to discuss FSA's Emergency Conservation Program (ECP), which helps farmers and ranchers to repair conservation structures and damage to farmlands caused by natural disasters, and to help put in place methods for water conservation during severe drought. The ECP does this by giving ranchers and farmers funding and technical assistance to repair conservation structures and damaged farmland or to install methods for water conservation.

In response to the 2021 drought, FSA expanded its policies to allow financial assistance to livestock producers for portable pumps used to temporarily pump water from available sources. This allowed producers to continue grazing activities when water sources were not safely accessible by the livestock. In Fiscal Year 2021, FSA allocated a total of \$140.4 million in ECP funds to assist producers in response to weather-related disasters. I will note that unlike CRP, which receives mandatory funding through the farm bill, ECP is funded by Congress through discretionary and supplemental appropriations.

FSA also administers the Emergency Forest Restoration Program. The EFRP helps the owners of non-industrial private forests restore forest health damaged by natural disasters. The EFRP does this by authorizing payments to owners of private forests to restore disaster-damaged forests. In Fiscal Year 2021, FSA allocated a total of \$56.9 million in EFRP funds to assist producers in response to weather-related disasters. EFRP is also funded by Congress through supplemental and discretionary funding through the appropriations process.

FSA's compliance with the National Environmental Policy Act (NEPA) ensures the agency diligently considers the effect of ECP's and EFRP's restoration activities on the environment. Following widespread damage occurring due to disasters, FSA has streamlined reviews to the maximum extent allowable by law for practices and restoration activities that will not result in ground disturbance, or "above the plow-line." This creates efficiencies in the environmental compliance process for farm and forest land restoration and reduces the time necessary for FSA to approve applications for assistance.

Heirs' Property Relending Program

In addition to programs authorized by Congress that are specifically targeted for conservation purposes, FSA is providing \$67 million to community-based lenders to

make competitive loans through the new Heirs' Property Relending Program (HPRP). These loans aim to help agricultural producers and landowners resolve land ownership and succession issues among heirs to enhance their ability to participate in farm programs and the ag economy. Intermediary lenders—cooperatives, credit unions, and nonprofit organizations—can apply for loans up to \$5 million at 1% interest. The first application period closed on October 29, 2021. Selection of successful eligible intermediary lenders is expected to be announced in early 2022.

Through participating community-based lenders, heirs can not only apply for loans, but can also receive critical assistance not typically offered through commercial lenders. Heirs' property issues have long been a barrier for many producers and landowners to access USDA programs and services, and this relending program provides access to capital to help producers find a resolution to these issues. Heirs may use the loans to resolve title issues by financing the purchase or consolidation of property interests and financing costs associated with a succession plan. This may also include costs and fees associated with buying out fractional interests of other heirs in jointly-owned property to clear the title, as well as closing costs, appraisals, title searches, surveys, preparing documents, mediation, and legal services.

Our efforts to assist heirs in addressing unresolved title issues is vital in removing barriers to historically underserved populations in our farming and ranching community. This in turn makes the programs discussed earlier in my testimony, as well as the other standing and ad hoc Farm Programs, more accessible, bringing in more participants, and yielding more conservation practitioners across the country.

COVID-19 Challenges and Solutions

As the FSA Administrator, I also want to take this opportunity to express my gratitude and admiration for the entire FSA workforce. These are challenging times, and since the pandemic gripped our nation nearly 2 years ago, and the nearly 1 year since I came on board, the FSA workforce adapted and overcame many challenges. Not only did FSA administer all of our conventional farm programs and farm loan programs, but we also administered many new pandemic relief and disaster programs authorized by Congress that have provided billions of dollars in support to our farmers and ranchers.

The work we do at FSA is vital, and with the support of our partners in the Farm Production and Conservation Business Center, we developed and executed a plan that allowed our Service Centers to be staffed safely and reliably during the height of the pandemic. To me, the safety and well-being of our employees, along with their families and communities, comes first. So when localized COVID numbers require it, we reduce our in-office workforce, while continuing to ensure all of the needs of our producers are met through innovative solutions, including telework and new technology. I am proud of the FSA workforce, and of what they have accomplished at home, at the office, and in the fields of agriculture.

Conservation is an integral part of the work we do at FSA. We want to weave the tools and practices of conservation into the DNA of all of our programs so that producers, communities, and our natural resources continue to thrive. Congress is a vital partner in this effort. We value the tools and authorities this Subcommittee provides, and in the coming months I look forward to not only reviewing our conservation programs as they are currently administered, but also working together to shape them into the future, as we look forward to the next farm bill. Thank you.

The CHAIR. Mr. Ducheneaux, thank you for your testimony, and certainly, thank you for putting in perspective the tremendous work of the employees of the FSA, particularly given the unique challenges we have faced over the past year and a half, 2 years with the pandemic.

Mr. Cosby, please begin your testimony when you are ready.

STATEMENT OF TERRY COSBY, CHIEF, NATURAL RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. COSBY. Chair Spanberger, Ranking Member LaMalfa, and also Representative Thompson and Members of the Subcommittee, thank you for the opportunity to appear before you today to provide an update on the USDA's Natural Resources Conservation Service farm bill programs. My name is Terry Cosby, and I am honored to serve as the 17th Chief of NRCS. I have been with the agency for

more than 40 years, beginning my career as an NRCS intern in Iowa in 1979. I appreciate the ongoing support this Subcommittee has provided for voluntary private lands conservation, and I look forward to the conversation today.

The last 2 years of the COVID-19 pandemic has been extremely challenging, with unprecedented pressures on our staff and customers, directly influencing the way we operate at the field level. Our staff and agriculture producers have also faced devastating extreme weather events, including tornadoes, droughts, wildfires, and flooding.

In the face of these challenges, NRCS staff continues to successfully implement conservation programs, as well as offering innovative improvements that respond to the needs and challenges of our customers across the country.

As we will discuss today, addressing the climate crisis and advancing equity are core components of our work. I would note a few highlights from the past year that illustrates the impact of our conservation programs.

Our two core working lands conservation programs are the Environmental Quality Incentive Program, EQIP, and the Conservation Stewardship Program, CSP. In Fiscal Year 2021, we enrolled 34,054 EQIP contracts, totaling nearly \$1.26 billion. We also enrolled 4,495 CSP contracts on 5.8 million acres, and 2,709 CSP renewals on 3.8 million acres.

Our easement program, the Agricultural Conservation Easement Program, ACEP, supports landowners in protecting, restoring, and enhancing wetlands and working farms and ranches. During Fiscal Year 2021, we enrolled nearly 200,000 acres in ACEP.

I also highlight the Regional Conservation Partnership Program, which leverages partner investments to deliver conservation solutions. In Fiscal Year 2021, NRCS announced \$330 million for 85 RCPP Classic projects and \$75 million for 15 alternative funding awards. We also work with partners through the Conservation Innovative Grant Program, which supports the adoption and evaluation of innovative conservation approaches.

Administrator Ducheneaux will discuss FSA conservation programs, but I will note that NRCS provides the conservation planning and the technical assistance. In Fiscal Year 2021, NRCS provided conservation planning and technical assistance on 4.8 million acres for a total of 58,800 RCPP contracts.

As we deliver on our conservation programs, we are expanding and furthering targeting our investments for climate-smart agriculture and forestry. This includes announcements within EQIP, CSP, and RCPP, as well as an updated list of climate-smart conservation activities. That being said, our programs remain oversubscribed with demand for climate-smart practices and programs well exceeding available funding. The Build Back Better Act will make an historic investment in our voluntary conservation programs that support farmers, ranchers, and forestland owners in addressing the climate crisis.

Additional investment will target the most effective conservation activities to address the climate crisis, and NRCS is well positioned to quickly deliver these programs to producers across the country. As we expand our investment in climate-smart agriculture, we rec-

ognize the importance of quantifying conservation outcomes, which include carbon sequestration and greenhouse gas reductions. This work will contribute to solar monitoring efforts across the department.

Implementation of our conservation programs in need of important updates is, of course, dependent on our staff and capacity across the country. In Fiscal Year 2021, we used direct hire authorities to bring on 1,141 new employees, and an aggressive hiring strategy will continue to support our overall staffing goals, as we implement our key priorities. Currently, we have 10,361 staff directly employed by the agency, and 2,465 staff employed through partners.

Across program implementation, as well as hiring, the value of equity and inclusion are valuable components of our work. We recently announced \$50 million in cooperative agreements to expand access to conservation assistance. These agreements will expand the delivery of conservation assistance to farmers, who are new to farming, low-income, socially disadvantaged, or military veterans. Expanding access to programs and services also included ensuring support is available for urban producers. NRCS houses the Offices of Urban Agriculture and Innovative Production, which was established by the 2018 Farm Bill. While the office is located within NRCS, it is coordinated as a department-wide effort to leverage tools and services that support urban agriculture. To date, approximately \$11 million in grants and cooperative agreements have been awarded for projects that support food access, community gardens, urban farms, and food waste reduction.

In conclusion, thank you for the opportunity to come before this Subcommittee to provide an update on NRCS farm bill programs. I appreciate Congress' commitment and continued support for NRCS and voluntary conservation on working lands.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Cosby follows:]

PREPARED STATEMENT OF TERRY COSBY, CHIEF, NATURAL RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, thank you for the opportunity to appear before you today to provide an update on USDA Natural Resources Conservation Service's (NRCS) farm bill conservation programs. I appreciate the ongoing support and leadership this Subcommittee has provided for voluntary, private lands conservation and the improvement of our soil, water, air, and other natural resources as authorized under the 2018 Farm Bill and under our other authorities. The last 2 years of the pandemic have been extremely challenging with unprecedented pressures on our staff and customers, directly influencing the way we operate at the field level. At the same time, our staff and agricultural producers across the country have needed to respond to devastating extreme weather events, including tornados, drought, wildfires, and flooding. Producers are on the frontlines of the climate crisis, and we know that our farm bill programs and the technical assistance that our staff provides can play a critical role in supporting farmers and ranchers in their efforts to not only build more resilient operations but also to sequester carbon and reduce greenhouse gas emissions. In the face of these challenges, the entire NRCS team, from field staff to our National leadership team, has demonstrated innovation and dedication to ensure conservation services are delivered to our customers. Our team has continued to provide financial and technical assistance, working closely with our partners across the country to get conservation on the ground and implement innovative solutions to address natural resource concerns. As we will discuss today, addressing the climate crisis and advancing equity

are both core components of how NRCS is delivering conservation assistance and serving our customers.

COVID Challenges and Solutions

COVID-19 continues to have an impact on our operations, as we work to prioritize the safety of our staff and customers. We make changes to field office staffing levels based on local COVID-19 caseload numbers, which are monitored daily, and we are working closely with our pandemic coordinator to follow Centers for Disease Control and Prevention guidance and adjust Service Center staffing levels when a county is above our safety threshold of ten cases per 10,000 residents per day.

Our operations at USDA Service Centers must be conducted in a safe manner, and therefore we focus heavily on protecting both employees and customers through proper physical distancing, mask wearing, and cleaning. Critically important is the fact that we have not stopped providing services to our producers—we have continued to serve producers, through phone, email, and online tools, such as Teams, Box and OneSpan to enable collaboration and sharing/signing of documents. We value highly the in-person work that we do with our customers, and we look forward to when we can resume at 100% capacity. In the meantime, our staff continue to step up to the challenge to ensure we can rely on a combination of in-person support and virtual engagements to meet our customers' needs.

Farm Bill Program Implementation

In the face of pandemic challenges, NRCS staff continue to successfully implement the programs and authorities provided under the 2018 Farm Bill, as well as offer innovative administrative improvements that respond to the needs and challenges of our customers across the country. Program delivery in 2021 demonstrates the continued delivery of our core farm bill conservation programs:

- *Environmental Quality Incentives Program (EQIP)*: In Fiscal Year (FY) 2021, we enrolled 34,054 EQIP contracts, providing nearly \$1.26 billion on 343 million acres. Additionally, through newly offered EQIP Conservation Incentive Contracts option, piloted in FY 2021 in four states, we enrolled 528 contracts providing \$48 million in conservation assistance.
- *Conservation Stewardship Program (CSP)*: In FY 2021, through CSP Classic, we enrolled 4,495 CSP contracts providing over \$311 million on 5.8 million acres. Additionally, we renewed 2,709 CSP contracts on 3.8 million acres. Also under CSP, in FY 2021, we enrolled 1,428 contracts on 104,140 acres in the CSP Grassland Conservation Initiative.
- *Regional Conservation Partnership Program (RCPP)*: In FY 2021, NRCS announced new partnership projects under the RCPP Classic and Alternative Funding Arrangement (AFA) components. This included \$330 million for 85 RCPP Classic awards, and \$75 million for 15 AFA projects. There are currently 336 active RCPP projects that have more than 2,000 partners delivering conservation in all 50 states, Puerto Rico, and the U.S. Virgin Islands.
- *Agricultural Conservation Easement Program (ACEP)*: During FY 2021, \$230,490,000 was obligated to enroll 361 new ACEP easements totaling 197,734 acres that will help landowners protect, restore, and enhance wetlands or protect working farms and ranches. This includes \$102,903,110 in Agricultural Land Easements (ALE) and \$127,586,890 in Wetlands Reserve Easements (WRE). In FY 2021, we closed on 396 ACEP easements totaling over 145,000 acres. Additionally, we invested \$11 million in five Wetland Reserve Enhancement Partnership projects to enable conservation partners to assist NRCS with acquiring and restoring private wetlands.
- *Conservation Innovation Grants (CIG)*: In FY 2021, we awarded \$40 million to conservation partners for 37 new projects under the CIG program. These projects support widespread adoption and evaluation of innovative conservation approaches in partnership with producers. The Soil Health Demonstration Trial component of CIG focuses exclusively on conservation practices implementation and systems that improve soil health.
- *Conservation Reserve Program (CRP)*: In FY 2021, NRCS provided conservation planning and technical assistance on approximately 4.8 million acres for a total of 58,800 new CRP contracts across the nation. Technical assistance includes, but is not limited to, field visits to verify practice eligibility on the landscape, conservation planning, CRP practice survey and design, practice installation, operation and maintenance of practices and practice management. NRCS provides technical assistance for emergency use of CRP acres, such as haying and

grazing. NRCS is also working with the Farm Service Agency and selected partners to support CRP Monitoring, Assessment and Evaluation projects.

- *Conservation Compliance:* In FY 2021, NRCS completed over 39,000 highly erodible land determinations and over 21,000 certified wetland determinations. NRCS also completed approximately 22,000 compliance status reviews in 2021.

In addition to these overall program enrollments and project awards from the past year, we have made several recent announcements regarding improvements to our existing conservation programs, and there are several further opportunities that we plan to roll out in FY 2022:

Funding Allocations and Opportunities

We made several improvements to ensure the timely allocation of farm bill funds to the states and to provide added transparency regarding the sign-up and enrollment process. States received FY 2022 advisory allocations on October 1st, well before what has been provided in years past. This ensured states have the time they need to set sign-up dates and work with their customers on accessing the financial or technical assistance that is right for them. Additionally, in order to provide added transparency for producers and partners across the country, we launched a new webpage that houses all of the program sign-up dates. While producers can apply year-round for NRCS conservation programs, the new Program Application Ranking Dates webpage allows partners and producers to stay up-to-date on timelines relevant for their state or region, all the while maintaining the locally-led conservation process.

Targeted Climate EQIP Investments

USDA is engaged in a whole-of-government effort to combat the climate crisis, and over the past year NRCS has announced several targeted initiatives through EQIP to advance this priority. These opportunities include targeted EQIP funds for climate-smart practices in FY 2021, an 11 state EQIP cover crop pilot in FY 2022, and deployment of a nationwide EQIP Conservation Incentive Contracts program in FY 2022. The cover crop pilot, the sign up for which is still ongoing, will provide nearly \$40 million in funding for targeted cover crop adoption, in addition to funding available through our other conservation programs, enabling states to offer a streamlined enrollment process and bring new producers in the door. These targeted efforts enable us to deploy streamlined implementation approaches and address high priority resource concerns and climate-smart agriculture and forestry objectives. We will continue to build on this commitment within EQIP and across all of our programs and services.

Response to High Material Costs

Based on feedback from producers and our staff across the country, we were able to adjust payment rates for higher costs for certain materials since the prices for materials such as lumber, steel, PVC, and concrete have increased dramatically as a result of supply chain disruptions. These Coronavirus Agricultural Relief Payments (CARPs) were made available for participants with EQIP contracts who had implemented practices affected by these higher materials prices. In particular, we conducted an economic analysis and identified those practices most likely to be affected by these price increases. This increased financial assistance was made available for practices completed in calendar year 2021, and we have extended CARP availability for practices completed by March 31, 2022, recognizing continued supply chain disruptions.

New CSP Flexibilities to Support Streamlined Renewals

We also looked to improve access to CSP, based on feedback from producers and field staff. To support continued conservation efforts, we waived the CSP provision that had previously imposed a 2 year ineligibility for participants to reapply, following an unsuccessful renewal application. States are currently unable to fund all of the renewal requests that they receive given a limited availability of funds. Producers who are unable to renew at the end of their initial contract period, due to the limited availability of funds but no fault of their own, are now able to immediately reapply, rather than waiting a 2 year ineligibility period. The CSP regulation provides the Chief with the flexibility to waive this provision, and so we made the change to respond to the feedback from states and from producers across the country. This streamlines our conservation delivery process and also supports producers who wish to continue to build upon their existing conservation efforts.

Conservation Practice Standard Updates

We continue to update our conservation practice standards to reflect the latest science to protect and enhance resource concerns. Since January 2021, we released 28 conservation practice standard updates; 12 standards were updated and are being prepared for release; 24 standards have been reviewed and are ready for public review with a *Federal Register* posting; and seven are still under internal review. As part of the continued review of the development and implementation of our conservation practice standards, we are working to modify standards and data collection to capture climate-smart agriculture and forestry benefits.

Regional Conservation Partnership Program (RCPP) FY 2022 Funding Opportunities

In mid-January we released the National Funding Opportunities (NFOs) for RCPP Classic and RCPP Alternative Funding Arrangements for FY 2022. These NFOs reflected feedback from partners as well as State Conservationists to improve flexibility and accessibility of the program. We also released the two NFOs simultaneously to ensure that partners were able to assess the RCPP option best suited for their potential project. We will continue to improve implementation, including updates to the online portal and working to streamline reporting requirements.

Joint Chiefs' Landscape Restoration Partnership

In another demonstration of critical partnership across the Department and with communities across the country, NRCS and the Forest Service recently announced the investment of more than \$48 million through the Joint Chiefs' Landscape Restoration Partnership. These projects mitigate wildfire risk, improve water quality, and restore healthy forest ecosystems on public and private lands. Last month funding was announced for 41 projects, including \$15.3 million for 17 new projects and \$33 million to complete work on 24 projects previously selected in 2020 and 2021. Through the Joint Chiefs projects, the Forest Service and NRCS are working hand-in-hand with agricultural producers, forest landowners, and National Forest System lands to improve forest health using available farm bill conservation programs and other authorities. We're thankful to Congress for formally authorizing the Joint Chiefs program in the Bipartisan Infrastructure Law, ensuring its longevity into the future.

Evaluating Conservation Outcomes

We have made significant progress developing the tools and processes to measure and evaluate conservation outcomes associated with farm bill program implementation. This is especially important as it relates to soil carbon sequestration and greenhouse gas emissions reduction. We are moving forward with a new Conservation Evaluation and Monitoring Activities (CEMA) Program for Soil Carbon Stock Monitoring, allowing this measurement activity to be fully implemented within our planning process. The CEMA-Soil Carbon Stock Monitoring will collect empirical data using standardized protocols and will filter into a broader soil health monitoring effort, coordinated across USDA. Empirical data will increase science-based planning by helping calibrate estimated site conditions across the country when using COMET-Planner as part of the NRCS planning process. Further, NRCS quantifies the ongoing benefits of Nitrogen Management, Livestock and Manure Management, Rice Water Management, and many other voluntary conservation practices. NRCS scientists quantify the annual climate benefits of conservation practice delivery, working to integrate these quantified benefits into USDA reporting and the National Inventory of Greenhouse Gas Emissions and Sinks.

Staffing Updates

Expanding our staffing capacity remains a top priority as we work to support the delivery of conservation assistance through our farm bill conservation programs. In FY 2021 we used Direct Hire Authority (DHA) to bring on 1,141 new employees and have made significant progress in on-boarding these positions. Throughout this process we are implementing a hiring strategy to continue to improve the diversity of employees within the agency, with nearly half of the positions filled contributing to improving our overall diversity, while maintaining our level of scientific excellence. This hiring effort included increasing American Indian/Alaska Native females by 5%, Black or African American females by 12.5%, and Hispanic or Latino females by 5%. We are again pursuing DHA for FY 2022 and FY 2023, which will continue to support our overarching staffing goals as well as implementation of key priorities and initiatives. We are working closely with our states to identify the positions that are most critical for DHA and moving forward with robust training for both staff and partners. Currently we are at 10,361 staff directly employed by the Agency and

2,465 staff employed through partners to support the implementation of our conservation work.

Equity and Outreach

The values of equity and inclusion continue to be vital components in all we do in providing conservation assistance at NRCS. We are working to ensure that the programs we support and the investments we make are available to everyone, including producers and communities that have previously been unable to access assistance and faced discrimination. We have taken several recent steps to expand our capacity to do this work—through partnerships, staffing, and program improvements. First, on January 10th we announced awarding \$50 million in conservation cooperative agreements to expand access to conservation assistance among underserved producers to increase the adoption of climate-smart agriculture and forestry practices, address local natural resource concerns, and build and strengthen local food systems. These 118 Equity Conservation Cooperative Agreements will fund 2 year projects to expand the delivery of conservation assistance to farmers who are new to farming, low income, socially disadvantaged or military veterans. These agreements will support USDA's broader effort to address climate change and equitable access to programs. Additionally, I have directed all of our states to ensure that they have an Outreach Coordinator position in place. These positions will play a critical role in coordinating and supporting the dissemination of our equity and outreach strategy in the field. We are also working across the Department to advance Justice40—a whole-of-government approach to ensure 40 percent of the overall benefits of certain Federal investments support disadvantaged communities. Part of this work is closely evaluating and improving our farm bill conservation programs to address barriers to access for historically underserved producers.

Urban Agriculture

As we work to expand access to NRCS programs and services, that effort includes ensuring support is available for producers in urban areas as well. NRCS houses the Office of Urban Agriculture and Innovative Production (OUAIP), which was established through the 2018 Farm Bill. While the office is located within NRCS, it is coordinated as a Department-wide effort to leverage tools and services that support agriculture in urban communities. The office received \$5 million in funding in the FY 2020 Further Consolidated Appropriations Act and \$7 million in the FY 2021 Omnibus and COVID Relief and Response Act. The President's FY 2022 Budget Request includes \$9.5 million for OUAIP and \$1.6 million for the Farm Service Agency to administer an Urban Agriculture County Committees Pilot. To date, approximately \$11 million in grants and cooperative agreements have been awarded through the OUAIP to strengthen existing programs and create new projects in the focus areas of food access, community gardens, urban farms and controlled environmental agriculture, and food waste reduction. NRCS will continue to work with our partner agencies across the Department as well as staff and partners across the country to further invest in urban agriculture.

Build Back Better

As illustrated through these updates, the Agency continues to utilize our existing programs and funding to ensure that farmers across the country have the tools they need to respond to the climate crisis. That being said, our programs remain oversubscribed, with demand for climate-smart agriculture practices and programs well exceeding available funding. The Build Back Better Act would make a historic investment in our voluntary conservation programs that support farmers, ranchers, and forestland owners to continue leading the way in addressing the climate crisis. Farmers have long demonstrated leadership in environmental stewardship with strategies that provide benefits for the farm, the environment, and the public. The critical investments proposed in the bill would help meet the demand from the farming community for conservation support and enable producers to realize the full potential of climate benefits from agriculture. The additional investments in EQIP, CSP, RCPP, ACEP, Conservation Technical Assistance (CTA), and measurement and evaluation would target investments to the most effective conservation activities to address the climate crisis, and NRCS is well positioned to quickly deliver these programs to producers across the country, including outreach to historically underserved producers and those who have previously been unable to access our programs and support. We look forward to working with Congress as the work on Build Back Better legislation continues.

Disaster Relief and Prevention

Finally, NRCS continues to play an important role in responding to emergencies, including wildfires, hurricane, tornadoes, flooding, and other disasters. In FY 2021,

we entered into 170 agreements with local sponsors to implement Emergency Watershed Protection (EWP) measures, and \$237 million of EWP funds were obligated. Responses to 63 watershed emergencies were initiated in FY 2021, including: Hurricanes Zeta, Elsa, and Ida; western wildfires in Arizona, Utah, and California; and major winter and spring flooding events across the Southeast. NRCS also plays an important role in disaster prevention. In FY 2021, we obligated \$166M in Watershed Protection and Flood Prevention Operations (WFPO) Program funding to 65 projects in 23 states to address new and backlog projects that help restore and protect watersheds. NRCS also allocated \$31.5M in Watershed Rehab funding to help local sponsors in the assessment, planning, design, and construction of 152 projects (42 assessments; 56 planning; 20 designs; and 34 construction) in 22 states. Recognizing the significant role that these programs play in preventing disasters, I appreciate the further investment that Congress made through the Infrastructure Investments Jobs Act (IIJA) for our watershed programs. These additional investments, on top of the mandatory and discretionary funds previously provided, will deliver much needed assistance for communities across the country. We are working with our states and local sponsors to identify project requests, ensuring targeting assistance for underserved communities and climate related disasters.

I appreciate the opportunity to come before the Subcommittee today to provide an update on NRCS's farm bill conservation programs. We have made significant progress implementing and improving these programs under the authorities provided to USDA. NRCS will continue to utilize these programs to protect and enhance natural resources, support producers across the country, and advance key priorities related to climate change and equity. We know that farmers, ranchers, foresters, and landowners are on the frontlines of the climate crisis and NRCS stands ready to continue to support the implementation of conservation solutions that respond to the severity of the crisis. As we continue to build on current investments, I also look forward to working with Congress to continue to advance these shared priorities and will continue to work with you as you begin the process of crafting the 2023 Farm Bill. I appreciate Congress's continued support for NRCS and our work to invest in voluntary conservation on working lands. Thank you for the opportunity to submit written testimony.

The CHAIR. Thank you both for your testimony today.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to get in as many questions as possible. Please keep your microphones muted until you are recognized in order to minimize background noise.

I will begin by recognizing myself for 5 minutes.

Chief Cosby, I would like to ask you a question about the Regional Conservation Partnership Program, RCPP. It has brought diverse groups together to address natural resource concerns in a really focused manner that leverages USDA investment with private-sector dollars, and this program has worked very well since it was first authorized with the 2014 Farm Bill.

However, recently partners have expressed concerns about some of the bureaucratic hurdles and challenges. Have you heard about any of these concerns, and are you taking any steps to address them?

Mr. COSBY. Chair Spanberger, thank you for the question.

I have had an opportunity to work with this program, since it came in, in 2014, as a State Conservationist, and bringing partners together to leverage the Federal investment. It has worked really well. It is a great program. It continues to flourish.

We have heard concerns, and I will tell you that we are addressing those. We need our partners to really continue to bring those forward to us, as we talk about this. We recently announced RCPP and the new investment that we are going to make, and we think we have streamlined the process. We are working to train our field

staff on how to deliver it more effectively and efficiently, and so we have heard those concerns, and we are addressing those.

The CHAIR. Thank you, Chief Cosby. That certainly is music to my ears, and I would love to follow up and determine if there is any way that we can ensure that any challenges that might be brought to our Congressional offices are something that we can relay as you continue to make those improvements.

Moving on with my questions. On January 10, 2022, USDA announced the use of EQIP and CSP to promote select climate change-related goals, including a partnership with the Farmers for Soil Health Initiative, and targeted EQIP funding for cover crop adoption. How are these changes to farm bill programs expected to increase adoption of climate-smart practices?

Mr. COSBY. These types of partnerships are really important, because it gives us an opportunity to work with the folks, the boots on the ground. My staff, along with farmers that belong to a lot of these organizations we are working alongside of, provide some great opportunities for us to hear exactly what is happening on the landscape, and also partner with some organizations to get more conservation on the ground.

This is really important. We know that we can't do it all on our own and by ourselves, and so, the more partnerships that we have and the more investments from private organizations, I think we have a better chance of looking at how do we help with climate, drought, and all of the things that happen when we have this adverse weather going on around the country.

The CHAIR. So, one more question to follow up on that.

Last month, Secretary Vilsack identified several climate change-related achievements by NRCS and other agencies, including the investment of \$10 million to support climate-smart agriculture and forestry through voluntary conservation in EQIP, and funding for EQIP was authorized at \$1.8 billion in Fiscal Year 2021. Does NRCS plan to increase the amount of funding for EQIP directed to climate-smart agricultural practices, looking at Fiscal Year 2022? If so, by how much and frankly, how does that funding level for Fiscal Year 2021 compare with other USDA announcements citing EQIP or other voluntary practices?

Mr. COSBY. Well, not only EQIP. We are looking at how do we incorporate climate-smart solutions into all the programs that we administer through NRCS, and we are working very closely with our State Conservationists out across the country as we, for the first time ever, that I can remember, we gave states their budget in October. It gives them 12 months to plan, and also, it helps us to look at what are the resource concerns, what are the things that we really need to be keen on, and EQIP is that program that we need to really work through. It gives our folks an opportunity to work with the state technical committees out there across the country to set those priorities when we look at those resource concerns. And so, EQIP is an opportunity for us to keep adjusting and look at how efficient it is, and how effective it is.

And also, when we talk about the climate crisis that we are having, EQIP is one of those solutions that we have.

The CHAIR. Administrator Ducheneaux, I am short on time, but looking at how the 2018 Farm Bill reauthorized and amended CRP,

what challenges has your agency had in enrolling acres in CRP, and how could that program be amended to address those challenges?

Mr. DUCHENEAUX. As far as amending, ma'am, whatever Congress decides to do, we will work our best to implement it. But we have made some changes to soil rental rates that have really helped drive enrollment up. We made an increase in the grassland CRP, which significantly drove interest up.

And it is important to remember that every additional acre we enroll in CRP is another choice that a producer has to be an economic player in the global climate change mitigation effort.

The CHAIR. Thank you, and there is certainly financial impact for them.

Thank you very much to our witnesses, and I now recognize Ranking Member Thompson for 5 minutes.

Mr. THOMPSON. Well, thank you, Madam Chair. Gentlemen, Administrator, Chief, thank you both once again for being here.

In the stalled Build Back Better Act, there is \$28 billion in funding for climate practices. That money is almost equal to a doubling of funding for the current farm bill conservation programs. A significant portion of the funding is backloaded in the last 2 years of the bill. For example, the Regional Conservation Partnership Program, RCPP, receives over \$3 billion in Fiscal Year 2026, ten times the amount of funding it receives in the farm bill.

Chief Cosby, did the House or Senate, I mean, this was really done with little to no transparency. I would border on no transparency, as it through this legislative process and House. Did the House or Senate Democrats consult with the Department on this funding?

Mr. COSBY. Sir, what I would say to that is that we work very closely with all the Members, and we have a very capable staff out there. Whatever the dollar amount that Congress appropriates to these, we will be able to implement.

Mr. THOMPSON. Well, that will—

Mr. COSBY. We will be very happy.

Mr. THOMPSON. And we will get to that part. That is my next question, so thanks for anticipating it.

But this is about direct consultation. Did the House, I can tell you, the House Republicans were not consulted, and as Ranking Member, we were not consulted. So, was there direct consultation by the Department with House Democrats, well, let's just start with that, I guess.

Mr. COSBY. The way I would answer that is we provide technical assistance when asked by Members of Congress, and I am sure that there were some conversations that were had.

But we provide technical assistance when we are asked.

Mr. THOMPSON. So, you are not sure?

Mr. COSBY. I am not sure of that.

Mr. THOMPSON. Not sure.

Mr. COSBY. But I can take that question back and get you the answer.

[The information referred is located on p. 43.]

Mr. THOMPSON. I appreciate that. That would be great.

Do you believe that the department has the ability, and this was kind of what you were getting to, to get that money out the door, and if so, what would that plan look like?

Mr. COSBY. Sir, we have an aggressive hiring strategy. We had direct hiring authority last year. We were able to bring on a lot of employees. We also have a lot of partners across the country that really help us with this, and we do agreements and we have a lot of boots on the ground to help do this work.

We believe, no matter what Congress appropriates, we can deliver, and we have the right skill sets, we have the right men and women across the country just to do that.

Mr. THOMPSON. Well, trust me. I am obviously a big fan of USDA. We talked about that before we started, and I appreciate your leadership, and I appreciate the men and women who work at USDA. But what would you have me say to the farmers as I interact with them, whether it is here in Washington or crisscrossing the country as I have done and continue to do, because I want them to bring their voices to the 2023 Farm Bill process. How would you have me respond when they express their concerns with this, because they have concerns with just the current programs we have, getting that money out the door? And we are talking about, as I was referencing, an incredible increasing amount of funds, and we have frustrations now with the current programs. What should I tell them when I hear that, because I expect that is going to continue to be a common theme?

Mr. COSBY. What I would say is my agency, NRCS and also FSA, we are a trusted partner with the American producers across the country, and we deliver. And no matter what the program is, we have seen no letdown from anything. Our staff is able to deliver. As I described earlier, most of our programs are oversubscribed, so any dollars that are invested in conservation is going to be a great day, and our staff is there ready to deliver that. So, we are a trusted partner with the voluntary land users out there that do voluntary conservation.

Mr. THOMPSON. Yes, and I would agree with that, but there are serious concerns especially with the amount of money that the \$28 billion exponentially increased without really any farm bill hearings.

Well, many of the private companies have made major climate commitments. They oftentimes are struggling to find ways to achieve their goals, despite having significant financial resources. Simultaneously, the USDA conservation programs are oversubscribed, and agricultural producers have difficulty accessing these vital programs. And for this reason, I introduced the SUSTAINS Act (H.R. 2606, Sponsoring USDA Sustainability Targets in Agriculture to Incentivize Natural Solutions Act of 2021), which would allow USDA to accept and match donated private funds to stretch the Federal dollar. The idea is that third parties could directly partner with USDA to fund conservation programs, which we know are tremendously effective in dealing with climate, climate change. And that investment through the existing programs—do you support this legislation or do you support that concept of a public-private approach where we are able to create something that the pri-

vate-sector would be able to support USDA and the work that you do with conservation programs?

Mr. COSBY. Many of our programs support private and public partnerships, and so we are working through a lot of those like RCPP, and it is working. And so, we support that through the conservation programs that we have right now. I have not had an opportunity to study at length the bill that you are talking about, but I will do so, sir.

Mr. THOMPSON. I appreciate it. Thank you.

Thank you, Madam Chair.

The CHAIR. Absolutely. The chair now recognizes Congresswoman Pingree from Maine for 5 minutes.

Ms. PINGREE. Thank you very much, Madam Chair. Thank you for having this hearing, and thank you to both of our witnesses. I really appreciate the work that you are doing, and I am grateful to have you here with us today.

I wanted to talk first to Mr. Cosby, Chief Cosby. Thank you for being with us today. I want to talk first a little bit about CSP, and frankly, the important role it can play as a climate solution. It is the Conservation Stewardship Program, such a valuable tool.

Now, the Ranking Member just brought up this issue about the funding in the Build Back Better Act, and the increase in funding, but sort of contrary to what he was saying, I found in Maine we have only been able to fund about $\frac{1}{4}$ of the applications. So, the added resources in the Build Back Better Act would be extremely important to my state, and I am sure that is true in Pennsylvania as well, that there is not sufficient funding. So, I hope we are able to get increases in funding and make that money available to our farmers who are anxious to use this already.

But could you talk to me a little bit more about how we use CSP as a tool in combating climate change, and why that is a particularly helpful program?

Mr. COSBY. As a State Conservationist, I had an opportunity to administer CSP and now as Chief, and it is the biggest working lands conservation program that we have, and it is very successful. And you know, we have a lot of producers out there that transitioned from EQIP to CSP, which like I said, has been very successful.

One of the things we have seen is that in the fifth year, producers have an opportunity to re-enroll, and there is something in that that was in our policy that said that if you didn't re-enroll in that fifth year, you had to sit out 2 years and wait. So, we were able to waive that and make sure that producers have an opportunity to re-enroll right after that fifth year.

It is a very successful program. We have identified 81 enhancements in the CSP that we think have the best chance to help us with the climate crisis, and we have also identified some practices also in our EQIP program. But we have identified 81 enhancements that we know will help with soil sequestration and also greenhouse gas emissions.

Ms. PINGREE. That is great. Well, thank you. I really appreciate it: 81 is a big number. But, I know that is going to cover some of the things that I put in my bill, as you mentioned, soil health, carbon sequestration, a variety of other things.

I want to take a different tact here, and again, thank you, Chief Cosby, for talking to me about this question. That is about PFAS. Maine has been a little bit ahead of the curve on testing for PFAS (perfluoroalkyl and polyfluoroalkyl substances) contamination, which means that we have identified, unfortunately, a handful of farms that are affected by these forever chemicals. But we know there are many more in Maine, as we increase our testing and we know it is not just a Maine problem. Last week, the State of Michigan issued a consumption advisory about beef from one farm that was found to have high levels of PFAS.

I know that NRCS could assist farms if they make the difficult decision to dispose of contaminated animals, but I would like to hear more about what NRCS could be doing to support farmers in this devastating situation.

Mr. COSBY. And thank you for the question, and yes, we have been working on this. We identified some areas where we can be helpful, as we are out on those farms and working with those landowners. We can talk about what are some of the things that can help mitigate PFAS, and get those herds back to producing the high quality of milk that is needed.

Also on the disposal side, we are working very closely with our staff to identify how we can help with that. Now, our agency, while we may be able to provide some financial assistance to dispose of that herd, we have to make sure that we are following all state rules and regulations as far as disposing, where those animals can be buried. We do not make that decision on where those animals can be buried. So, we work with the state authorities to make sure that happens.

But we are working to look at our standard inspection, how we can help those landowners make decisions on getting those herds healthy and then if they can't get them healthy, then we have an opportunity to help them if they have to dispose of the animals.

Ms. PINGREE. Well, thank you for that, and I know you share my concerns that farmers in this situation not only face the devastating possibility of losing their animals and the challenges that faces with herds that you been cultivating your whole life, and also the economic loss it can have. This is a devastating problem, and we have to support it much more.

I just want to add one quick thing. In the 2018 Farm Bill, soil testing was added to the EQIP program, so I hope that NRCS could help defray some of the very significant costs of soil testing for PFAS that farmers in our state are currently taking on.

I am out of time, but I can connect with you about that. But I do want to reiterate that soil testing is extremely important, and we need some assistance with that.

So, I will yield back. Thank you, Madam Chair.

The CHAIR. The chair now recognizes Mr. Allen from Georgia for 5 minutes.

Mr. ALLEN. Thank you very much, Madam Chair, Administrator Ducheneaux, and Chief Cosby, thank you both for coming before this Committee today.

This is an important hearing, and obviously to write a new farm bill, we need to know how the existing farm bill is doing, and what improvements we can make to it. I am very glad that this Com-

mittee is taking up these issues, and of course, we have talked primarily about climate change. And I got to be honest with you. When I am in my district, I don't hear anybody talking about climate change. I hear them talking about, like, the cost of gasoline and finding gasoline, and the cost of everything. Obviously, there is a war on fossil fuel. I don't know what that is doing to agriculture. Obviously, it is increasing the price of food at the grocery stores.

There is also very much a concern about grocery store shelves being empty, and in fact, I got a question the other day about, "Hey, are we looking at a major food shortage in this country?" And so, obviously, we should have our eye on the ball here, but we may be so fixated on one issue that all of a sudden, we lose the whole intent of why we are here, and the reason for the farm bill is to ensure that we have an adequate food supply for this country, and that it be efficient and safe.

Going to my first question is how much, you talk about what you are dealing with here. The Ranking Member talked about the Build Back Better and the money involved in that. We are talking legislation this week, \$8 billion going to the U.N. for climate. What are we spending at USDA in dealing with climate, and how much is that raising the price of food? Have we looked at that at the grocery store? I mean, how much is that impacting the American people right now?

Mr. DUCHENEAUX. Thank you, Congressman Allen. I will jump in there.

We see our role at the Farm Service Agency and the USDA more broadly to provide support for producers to have economic opportunity, and to the extent that that means funding some of the initiatives that will benefit them in the long-term like promoting soil health, which also has the added benefit of sequestering carbon and improving our climate outcomes, that is going to improve production over the long haul, and it is going to help producers have more economic freedom in order to be partners in whatever initiatives the Federal Government decides to roll out.

As to whether or not our efforts are directly impacting the price of inputs, I think there are other supply chain issues that are impacting that, and the work at the broader USDA is trying to address some of those challenges. At the—

Mr. ALLEN. If I—

Mr. DUCHENEAUX.—Farm Service Agency—I am sorry, sir. Go ahead.

Mr. ALLEN. Well, what we need to do is we need to figure out one, all of a sudden in this new Administration it is all about climate, and we are seeing food prices skyrocket. And so, I just need to know what this is going to cost, and because the people out there are asking me, and they are saying what the heck is going on in this country? And so, it is a real problem.

But I would like to specifically ask a question about the CRP program. Right now the biggest problem in that program is flexibility. Every request that my office has made, say, for example, if you want to exchange this property for another piece of property and stay in the program, it has been denied. There is absolutely no flexibility, and of course, as you know, things change, property val-

ues change and that sort of thing. And you are in this program 10 to 15 years, why don't we have flexibility in that program?

Mr. DUCHENEAUX. Well, sir, I would offer that I haven't heard a producer ask me about exchanging properties. We will look into that. I know the Secretary has charged us with finding as much flexibility that we can within our existing authorities to benefit producers. So, I will definitely check on that.

[The information referred to is located on p. 43.]

Mr. ALLEN. Well, I have a constituent that has offered to put twice as much property in CRP, which obviously helps with carbon sequestration, which is obviously, trees need carbon to live, and in each case, they have taken it to the state board and they have denied their request.

So, yes. If you could get with our office and let's address this problem and see if something can be done, that would be most appreciated.

As far as the other thing that I was going to address is the Swine Eradication and Control Pilot Program, but I am out of time, and hopefully somebody else will ask about that.

But thank you very much.

The CHAIR. Thank you, Mr. Allen, and Mr. Ducheneaux, thank you for your questions. I think as follow up, the full Committee would be interested in follow up to Mr. Allen's question in the event that we may represent constituents with similar concerns.

The chair now recognizes Ms. Kuster from New Hampshire for 5 minutes.

Ms. KUSTER. Great. Thank you so much, Madam Chair, and I want to thank Chief Cosby and Administrator Ducheneaux for joining us today.

This is an excellent opportunity to take stock of where we are with the conservation programs in the farm bill, and I was so pleased to hear President Biden and Secretary Vilsack talk this week about the potential for agriculture to be the first sector of the American economy to reach net-zero greenhouse gas emissions. I believe we can realize that goal by recognizing and supporting farmers and foresters for the climate-smart steps they are already taking, while also being proactive in setting long-term goals for emissions reduction in agriculture and incentivizing further progress toward these goals.

To achieve net-zero agriculture emissions, the farm bill conservation programs run by NRCS and FSA are essential, and I want to thank the excellent staff on the ground in New Hampshire. Over 55,000 acres in the Granite State were enrolled in USDA conservation programs in 2020 alone, but there remains even more we can do. Just as Federal farm conservation efforts were born in the 1930s as response to the Dust Bowl and the Great Depression, we must continue to grow and enhance these programs in order to confront the greatest challenge facing our planet, and that is climate change, as we have heard in a bipartisan basis today.

To do that, we must ensure these programs are as accessible as possible to small family-owned farms and forestlands, and that means reducing unnecessary or duplicative regulations and reporting requirements, while still maintaining integrity in the programs.

In 2018, in advance of the last farm bill, I secured passage of bipartisan legislation to exempt farmers from the confusing SAM/DUNS registration process for NRCS. That process was mired with bureaucratic red tape and designed for billion-dollar government contractors, not small family farmers who want to utilize conservation programs to improve the environmental integrity of their farms.

Chief Cosby, as we approach the next farm bill, I am eager to continue efforts to streamline efforts to help small farmers and foresters, and as we look at what can be done legislatively, would you comment on anything you are already doing or considering within USDA to improve accessibility to NRCS programs?

Mr. COSBY. Representative Kuster, thank you, and I want to let you know that I had an opportunity to work in your great State of New Hampshire back a few years ago, so thank you for the question.

One of the things we are doing is that we talk about equity and everything that we do at NRCS and USDA, and also for administration, and equity is really important. I am a son of a farmer from Mississippi, and in the 1970s my dad had to give up farming operations because of being denied services that he needed to keep the operation flowing, and it was a sad day for my family to give up their farming operation. I will tell you that is something I get up every morning and I work hard on, not only conservation, but making sure that every person in this country that wants to benefit from USDA programs has that opportunity, and we are looking at what are the barriers that exist. We are getting rid of those, and my staff knows that this is something that we need to make sure is happening in every program that we administer, whether it is at NRCS, FSA. The Secretary has made it very clear, and also the President made it very clear that we want to make sure that folks have an opportunity, no matter where they live and no matter where they are, to participate in farm bill programs.

Ms. KUSTER. Great, thank you.

Shifting gears a bit, I wanted to ask about the Clean Lakes, Estuaries, and Rivers, also known as CLEAR Program, within the Conservation Reserve Program. Conservation groups in my district have found CLEAR to be beneficial and hope to see the program expanded further, especially by making the CLEAR30 Pilot Program permanent. Through this pilot contract supported by FSA, receive a water quality incentive and a climate-smart practice incentive.

Administrator Ducheneaux, could you explain the success of the program and its current operations?

Mr. DUCHENEAUX. Yes, ma'am, and thank you for the question, and thank you for the support of the CLEAR30 initiative.

As you are aware, it was initially composed of a pilot program that was in the Great Lakes and Chesapeake Bay area, and we took steps in June to expand that because of the popularity of the program, and that lets folks take that expiring CRP land and do something meaningful for it for a 30 year period. And I think that is a critical part of this, because it gives the producers some certainty on some of their acreage what assistance they are going to

have, what income they are going to be able to generate while contributing to improving the waterways of the country.

Ms. KUSTER. Thank you, and with that, I will yield back.

The CHAIR. Thank you very much.

The chair now recognizes Mr. Johnson from South Dakota for 5 minutes. Mr. Johnson?

Mr. JOHNSON. Sorry. Thank you very much, Madam Chair. I appreciate it.

I have some comments for Mr. Ducheneaux, and first off, I would say, sir, we are lucky to have you in your role because you really do understand grazing, coming from your part of the world. When I think about some of these working lands CRP programs, you are going to understand the importance of them better than just about anybody. And I should have started by thanking you all, because during the drought, the emergency haying and grazing is just so incredibly important, and your team has shown a lot of flexibility and I think a lot of understanding of how that can be a lifeline for people when times get tough.

But I want to talk a little bit about kind of a failure to launch with some of these grasslands CRP. The program has not gone like we wanted it to after the last farm bill. So, initially, sir, just give me a sense of any suggestions you would have for how we can make that program more effective?

Mr. DUCHENEAX. Thank you, Congressman Johnson.

We think we demonstrated great success with the changes we made to the CRP Grasslands Program this last year. We had 2 million acres subscribe to that. A lot of those acres were in some areas of emphasis, including the Dust Bowl Country and the Elk Migratory Corridor in Wyoming and Montana. So, I think give us a little time to see how that plays out in future years. We have some ideas about how we get out to our underserved populations with that program. As you are aware, some of the territory in South Dakota is operated on by Indian Country, and they haven't really been partners in CRP before. CRP Grasslands is a great opportunity to get meaningful watershed level enrollment into the programs that can help benefit producers in some of the most economically distressed areas in the country.

Mr. JOHNSON. And so, just give me an idea of what that outreach might look like.

Mr. DUCHENEAX. We are conducting outreach right now to talk about CREP, as an alternative to enroll in some of these. The flexibility that we have been offered in the Conservation Reserve Enhancement Program to work directly with Tribal Governments and state governments and other nongovernmental partners is going to be critical to building that public-private partnership that can really help producers have something to plan on.

Mr. JOHNSON. Sure, and let's talk a little bit more about working lands, because I do think some of the best stewardship, some of the best sustainability, some of the best habitat, I just think so many really good things can come from working lands.

So, talk to me more about how your agency views working lands conservation.

Mr. DUCHENEAX. At the Farm Service Agency, we are really trying to message that all of this land is working lands conserva-

tion. Take, for instance, CRP. During the last drought disaster we had in South Dakota, a lot of that land was opened up for emergency hay and grazing to help capitalize on the *reserve* portion of the Conservation Reserve Program. Now, there were some challenges with the primary nesting season and the haying of the land, but what we really want to emphasize in coming years is that producers can stockpile some of that forage hayed after that primary nesting season. As my dad always told me, hay in the stack is like money in the bank, and if we can stockpile that through non-emergency use, or make better use of it through non-emergency use, our producers are going to be better positioned to use their other non-enrolled acreages during times of drought and other disaster.

Mr. JOHNSON. So, Mr. Ducheneaux, I have some folks back home who talked to me about concerns that we may be headed toward what we saw maybe 10 years ago where there was a sense that some of the incentive payments and some of the land rates were really competing against young producers who were interested in getting into farming. Help me understand a little bit. Do you think that that is a legitimate concern? What should I tell those folks?

Mr. DUCHENEAUX. Sir, I think there are some limits built into it. One of the major limiting factors in having this be real competition is that there is a 25 percent acreage limit on a county-by-county basis. So, that leaves 75 percent of the other land in that county to adjust to the market. But you won't find a bigger champion in the department for young and beginning farmers than myself. I still identify as one, even though when I walk up those stairs, I don't feel like one. So, we are really going to focus on how do we build those connections? We have the Transition Incentives Program within CRP that really never gained any traction, so we are looking at how we can improve that program to make that connection with that next generation, sir.

Mr. JOHNSON. So, well said. Thanks for your service.

Madam Chair, I yield back.

Mr. DUCHENEAUX. Thank you, sir.

The CHAIR. Thank you very much.

The chair now recognizes Mr. O'Halleran from Arizona for 5 minutes.

Mr. O'HALLERAN. Thank you, Madam Chair, Ranking Member, and the panelists. I really appreciate your presentations.

I am pleased we are conducting a review of the conservation programs. These programs are critical to rural Arizona and rural America, particularly programs that help protect and restore land and water. As wildfire season has become longer, wildfires have become more dangerous and unfortunately, more deadly. The Natural Resources Conservation Service plays an important role in replanting and improving the land following wildfire burn scars. In 2019, the Museum Fire forced neighborhoods to evacuate, and cost more than \$9 million to control. It was only a little less than 2,000 acre fire. It has also left a burn scar in its wake. Now, several neighborhoods in Flagstaff face severe flooding. These are not neighborhoods that had been at risk for localized flooding before the fire, and it will be several years, it appears, before they are fully restored.

Post-Museum Fire flooding highlights the need for NRCS to have the ability to work on Forest Service lands. These are improvements that are supported by local governments in my district with no other resources and expertise provided by NRCS will help reduce flooding, replant trees, and restore the burn scars. And Chief, I know that you are in the process of working on that right now, and I appreciate it very much.

So, Chief, thank you for being here and for your testimony today. Can you discuss how NRCS resources are currently used to address fire burn scars in the aftermath of wildfire? I understand there are several examples, and are there potential ways to improve inter-agency collaboration with agencies like the Forest Service or BLM to better improve the resilience to wildfires?

Mr. COSBY. Thank you for the question, sir. A mixture of the land across this country is in private ownership, and we know that when there are fires, it doesn't stop at the fence, and we know that we have problems on public land also.

I have a very good working relationship with the Chief of the Forest Service, and we have been having meetings and talking about how can the NRCS help with not only private land, but on the public side of the fence also? And that is where we have something called the Joint Chiefs Initiative that the Chief of the Forest Service and the Chief of NRCS look at how we can work together. NRCS works on the private side of the fence, and the Forest Service works on the public side of the fence. We are also looking at how we can look in some of these watersheds to see how we can work together to restore that. We also have plant material centers around this country, where we are developing new species of plants, and we know that we have tools in our toolbox to help with a lot of those areas that need to be reforested, or even planted back to grass. So, we are consulting very closely with the Forest Service, and Chief Moore and I have a very good positive working relationship. And we are going to continue to do that, because we understand that public-private plays, it plays a very important part, and we have to look at how we can make sure there are not resource concerns not only on private land, but we need to be looking at the resource concerns on public land also.

Mr. O'HALLERAN. Thank you, Chief.

I highlighted that one fire, but I have had several in the district just in the past year, I appreciate all the work that you are doing towards that process.

Mr. Ducheneaux, Administrator, thank you for your testimony today. I commend you on your being the first Native American FSA Administrator, and thank you for all your work so far, and your work in the past. Under your leadership, what action is being taken to ensure that FSA resources are being used to improve conservation outcomes in underserved communities, particularly in Indian Country?

Mr. DUCHENEAUX. Thank you, Congressman O'Halleran.

I do have to give a little praise to the NRCS in this regard, because they have been leading in delivery of conservation programs in Indian Country. The CSP program was one of the most valuable tools that many of the producers in our communities have ever seen. But what the FSA is doing now with regard to the Conserva-

tion Reserve Enhancement Program, having someone that knows intimately the issues that are facing Tribal producers, as they try to enroll in these conservation programs at the head of the agency with partnerships across in the Department of the Interior to try to be able to work out more meaningful and implementable solutions is going to be critical in delivering services to those communities.

Mr. O'HALLERAN. Thank you very much, and I yield back, Madam Chair.

The CHAIR. The chair now recognizes Mr. DesJarlais for 5 minutes.

Mr. DESJARLAIS. Thank you, and thanks to our witnesses today.

Our farmers and ranchers have been unfairly labeled as climate criminals by some, and that cannot be further from the truth. What is the USDA doing today to recognize and promote awareness among the general public that our American farmers, ranchers, and foresters are already effectively doing to be climate heroes in increasing sequestration of greenhouse gases through their everyday agricultural practices?

Mr. COSBY. I will start for NRCS, and then I will turn it over to Administrator Ducheneaux.

I will tell you that as we work with landowners across the country, we know that private landowners are the best for conservation. These farmers out there, they have a lot of challenges. They work the land. They know the challenges that they are facing, and they are the best advocate for themselves also. As our staff works with them, we advocate for that also.

When we are out writing conservation plans for producers across the country, we look at resource needs and resource issues, and producers have a pretty good idea of how to fix a lot of these resource problems, and we are able to offer some financial assistance to help them through that. And so, as we administer these farm bill programs, we will continue to talk about producers and farmers and forestland owners as being champions, and USDA wants to be a champion right alongside of them.

Mr. DESJARLAIS. Okay, thank you. Let me ask another question.

We want to make sure that in this farm bill, the conservation title does not become the climate title. Farm bill conservation programs have garnered bipartisan support in Congress and are popular with farmers and ranchers. That popularity stems from farmers and ranchers having the ability to address natural resource concerns that are specific to their individual farms. I also believe these programs work because of the locally-led component where local work groups and state technical committees prioritize the practices that are important to their region or state.

What I have concern with is turning the conservation title into the climate title. For example, post-harvest flooding rice fields provides enumerable benefits to wildlife, but might not score high in climate dominated ranking systems. I also worry about some crops like wheat that can't always take advantage of cover crop incentives.

To both witnesses, will you pledge to support this long-held model of locally-led incentive-based conservation system rather than refocusing Title II as a climate title?

Mr. COSBY. Sir, I will start with that, and I will tell you that the local-led process is something that we wholeheartedly support. From my time in the field, as a soil conservationist and also as a district conservationist, and then as a State Conservationist that locally-led process really works. We had meetings in all the counties out there to talk about what the local resource issues were, and then they filtered it up to factor into how a lot of these programs work at the state level. And then working alongside the state technical committee, which is a very important group of folks from all segments of society, and they sit along with myself when I was a State Conservationist, and also the FSA Director, and talk about, from a statewide perspective, how should these programs work? So, it worked building it up from the local, and then marrying it at the state and then also looking at what are the national priorities.

So, when we look at this, we talk about local priorities, we talk about state priorities, and then we talk about national priorities, and that has worked.

Mr. DESJARLAIS. Okay. My district is home to the famous Jack Daniels distillery and several other hardworking distilleries. White oak trees are crucial to the industry for making their world-famous barrels, and unfortunately, the industry is in worsening shortage. The last thing they need, and so many others in agriculture, is more regulations. There is a lot of fear about tax revisions such as the Stepped-Up Basis Program, which is critical to ensuring that generational family farms remain intact, could be going away. Can you talk about what the Department is doing to ensure these producers are supported?

Mr. DUCHENEAUX. Thank you, Congressman DesJarlais.

We at the Department, and specifically in the Farm Service Agency, we see our role, as I have stated, to support producers and ensure that they have enough of their production income left at the end of the year so that they can make choices. We see the 3.4 million ag producers out there in the country as champions of the initiatives that the Administration is touting more and better markets, climate-smart solutions, recovery from the pandemic, and improving access for the next generation. If we don't have producers that have production income in their pocket at the end of the production year, that next generation isn't going to be interested anyway.

Mr. DESJARLAIS. Thank you. That is pretty much all the time I have. Thank you both, and I yield back.

The CHAIR. The chair now recognizes Mr. Panetta for 5 minutes.

Mr. PANETTA. Thank you, Madam Chair, and Chief Cosby as well as Administrator Ducheneaux, thank you very much for being here. Thank you for your testimony, and of course, thank you for your work on the Federal conservation programs.

As you have testified, obviously these types of programs have played a vital role throughout our nation's agricultural history, and let me tell you, they helped a lot in my district on the Central Coast of California, in which they have protected farmland, and obviously helped develop effective conservation practices that have benefitted not just our farms, but our farmworkers and our food for sure.

Now, on the Central Coast of California, we have a lot of diversity when it comes to what type of crops we grow, over 100 specialty crops, as I am sure both of you know, and therefore, some of the challenges are when it comes to conservation practices, because one size doesn't fit all, unfortunately, in my district, but fortunately for its diversity, which helps them out.

Now, that being said, obviously I do believe that is why it is so important to ensure that, and Chief, especially what you just said, that especially crop producers and people at the local level are at the table in this conversation, especially when it comes to conservation.

And Administrator Ducheneaux, you obviously understand this, and I say that based on, and Chief, but especially the Administrator, and I say that personally because you have someone working for you, Riya Mehta, who understands how important it is to have everybody at the table. As you know, she was a former employee of mine and a damn good one, and good on you for having her work for you, but also good for our agriculture and good for our specialty crops on the Central Coast, knowing that she is still working on programs like this. So, thank you. Thank you very much.

Now, let me talk about specialty crops, or at least let me ask you a question about them, especially when it comes to the Climate-Smart Commodities Initiative. Obviously, you know that that is funded by the Commodity Credit Corporation, and can you explain how specialty crops are included in the Climate-Smart Commodities Initiative, and Administrator, I will go ahead and put that first one to you.

Mr. DUCHENEAUX. Thank you, Congressman, and thank you for not taking me too hard for stealing your good staff. I agree, she is top notch.

Since I have been at the agency—and this maybe was going on long before—we have engaged with very diverse stakeholder groups. We have had several groups from the specialty crop arena giving us input on program construction, instead of us going out there and saying here is the programs we are doing, figure out how to fit in. We are bringing them in at the front of these conversations. So, by definition, whatever we do with regard to the CCC funding that we are going to have an opportunity to deploy is going to have taken into account the needs of those specialty crops producers.

One of the other aspects of the work that we do that really isn't tailored to fit specialty or organic crops is our farm loan programs, and we are working very diligently with those groups to try to find a way to craft those tools to better suit their needs, so they are not so reliant on the small segmented parts of the work that we get to do to suit their industry.

Mr. PANETTA. Great, thank you.

Chief, do you have anything to add to that?

Mr. COSBY. Just a little bit on the locally-led. It is very important, especially when we have local conditions. It is very important that we have local folks at the table to talk about what those resource issues are and what those resource needs are, and then our folks are able to look at it and say, "Hey, let's sit down, let's write

this conservation plan, let's walk the land, let's talk about the crops that you are growing. How can we solve the resource issues, and also make sure it is beneficial to your bottom line?" And so, that is what is so great about the NRCS team. We are able to look at whatever is grown there and take that into consideration when we are writing that conservation plan.

Mr. PANETTA. Great. Thank you, Chief.

Now, in regards to cover crops. Obviously, specialty crops kind of have a little bit more difficult time applying these types of cover crops for some conservation practices. Now, I know there is a proposal and you know there is a proposal for a nationwide pandemic cover crop incentive, the Pandemic Cover Crop Program that is out there. Mr. Administrator, how will the FSA work with the RMA to administer this?

Mr. DUCHENEAUX. We work very closely with Administrator Bunger on that, and we were partners in delivering that program last year. We were expecting 2 million acres, and we enrolled nearly 14 million acres in that Pandemic Cover Crop Program, so I think the need is there, and you have the commitment of myself and Administrator Bunger to work together. She brings the added benefit of having been a county executive director for us in the past.

Mr. PANETTA. Outstanding, thank you.

My time is up. I yield back, Madam Chair.

The CHAIR. Thank you very much.

The chair now recognizes Mr. Moore for 5 minutes. Mr. Moore, you might be muted.

Mr. MOORE. I apologize, Madam Chair. I thought I hit the button. I guess it didn't go through.

The CHAIR. We can hear you now. Thank you.

Mr. MOORE. Okay, very good.

Chief Cosby, what is the staffing capacity level that you need to effectively implement the farm bill conservation programs and to provide needed technical assistance, and where are you currently compared to that number? And last, will the Administration request a level, you think, in the near future to meet the needs?

Mr. COSBY. Representative Moore, thank you for the question.

We have a very aggressive hiring strategy. Last year also, we had direct hire authority where we were able to take résumés and bring on a very capable staff to NRCS. Over the last 2 years, we have hired about 3,000 employees, and over the next 2 years, hopefully we will be able to bring on the same.

We are well above our attrition rate as people leave the agency for retirement. We have been able to maintain our numbers. We are at 10,300 right now. Our number is a little over 11,000 that we can staff up to, and we are going to make that number this year. But we are working very closely with our State Conservationists and our folks across the country to figure out what is the talent that we need, what is the skillset that we need, and we are looking at hiring those individuals with those types of skillsets that are so vastly needed across the country out in those field offices across the nation.

Mr. MOORE. Thank you, Mr. Cosby, and with that, Madam Chair, I will yield back.

The CHAIR. Thank you very much. The chair now recognizes Ms. Schrier for 5 minutes.

Ms. SCHRIER. Thank you, Madam Chair, and welcome, Chief Cosby and Administrator Ducheneaux.

I would like to touch on a few challenges with conservation programs that farmers and growers in Washington State have been experiencing, and I hope USDA can help with these.

The first is simply the lack of staffing at local USDA offices, which is impacting USDA's ability to meet the demand of farmers who want to participate in farm bill conservation programs. And I should just mention, the desire is there. I heard from some of my colleagues about not hearing about this. I am talking specifically, for example right now, about DeGoede Farms that has a hydroponic facility. This is all an EQIP supported endeavor that has solar panels and rainwater catch basins that is saving a ton of money and increasing yield. But it turns out that the local offices that help farmers on the ground are simply not staffed, and so, this puts undue burden on local conservation districts to fill in the gaps, and they are already strained by demand. So, for example, this last year in Pierce County, Washington, the conservation did 90 percent of the work to get farmers enrolled in EQIP. And I know things are improving, but I just wanted to emphasize that need for local staffing.

The second challenge is that while the EQIP program generally works well once it is implemented, boy, the paperwork and the bureaucracy is really overly burdensome, and the timelines from application to implementation is frustratingly long. And so, I would ask you to please work on streamlining the process to make it more accessible. And of course, I know some of that depends on meeting that first request of just more staffing.

And then the third has to do with funding, and there is just simply not enough funding for these programs. Only 30 percent of the farmers who applied for EQIP contracts in my district were awarded them, and reimbursement rates are also a problem. They are insufficient, particularly in places like King County and Pierce County in my district where land is so expensive that compensation for sacrificing working farmland needs to be much higher to incentivize conservation. So, I will work on increasing overall funding to meet the need, both the need of farmers for financial liability and access to these programs, and the need for more conservation programs in general. But I would ask you to consider land value in determining how to compensate farmers for opting in to conservation programs, because if that doesn't happen, farmland is going to turn into housing, which is in high demand and can bring huge financial reward to farmers who sell to developers, rather than conserving the land. And in addition, I would say there shouldn't be restrictions that block farmers from selling any of their land for development. For example, we should still incentivize conserving part of the land, even if they sell the rest.

So, Chief Cosby, I just was wondering if you could comment about what we could do here and what your plans are to ensure that farmers who want to participate in USDA programs are able to do so and are incentivized to do so?

Mr. COSBY. Thank you for the question, and I will try to hit on a couple of those that you mentioned.

And staffing, as I mentioned before, that we do have a very aggressive staffing model that we are implementing. We are hiring staff across the country. We have a very capable State Conservationist in Washington State, and we will be working with her to make sure that she has the right staffing for her state.

Also, on EQIP, one of the things that we are working on is making these programs a little more transparent, and also, we are working very hard in each of the states to have outreach coordinators that will be working and reaching out to producers to help them better understand how these programs work, how do you apply, how do you go through the whole process.

One of the things that we did this year is we gave states their budget in October, and so, they have 12 months this year to make sure they get folks in the door and also work through the process. And we also have a website on *USDA.gov* that talks about all of the signup areas across the country. It is one website, and so, producers that farm regionally or farm across state lines are able to go in and look at what those dates are.

And I just want to remind everyone that for most of our program, it is a year-round signup period, 365 days, and if you don't make it then, we will defer that application until the next year. So, it is 365 days, and we encourage folks to come in and sign up. If there are any misconceptions there, just reach out to that local staff.

Also on the funding side, your state is no different than the rest of the country. We are only able to fund about $\frac{1}{3}$ of the applications that walk through the door, and it is a very competitive process. We want to make sure that folks understand what that process is, and how to apply. And we are making it so that it is not by farm size or anything like that. When we look at our ranking system, we are trying to make it more flexible so that anyone that wants to participate, and they are going to do some great conservation work, has that opportunity.

Ms. SCHRIER. Thank you. I yield back.

The CHAIR. Thank you very much, Ms. Schrier, and to conclude our first round, and if the witnesses are able, we would enjoy doing a second round. To conclude our first round is Ranking Member LaMalfa. Mr. LaMalfa, you are recognized for 5 minutes.

**OPENING STATEMENT OF HON. DOUG LAMALFA, A
REPRESENTATIVE IN CONGRESS FROM CALIFORNIA**

Mr. LAMALFA. Thank you, Madam Chair. I am phoning in from home here today, so thank you for letting me work around things. I am under the weather a little bit, but as you see, the Pomeranian just woke up here this morning at the house.

That all said, thank you for this hearing, and G.T., thanks for sitting in, in the number two chair there.

I just have a couple questions for Mr. Cosby here quick. Up here in northern California, obviously we have been victim of an incredible amount of wildfire the last several years, but you know, more years than that, really. They are just getting bigger and bigger. So, one of the common concerns we are hearing from landowners up here is that to reduce wildfire risk, is we have a lack of forester

capacity, boots on the ground, so to speak, right? So, some states have very few foresters on hand to do the work. So, Chief, what is NRCS doing to try and boost that number and help address this very important problem that we are seeing because of just flat staffing numbers? We are seeing a lot of frustration with COVID closures as well, and what will you be doing or what are you strategizing that we can do to implement more of these practices to protect our communities and other barriers that are standing in the way of forest management?

Mr. COSBY. Congressman, last year the State Conservationist of California identified a great forestry need of foresters, and one of the things that he did was a percent of his staff that he brought on out there were foresters, and we have identified that need across the country. And so last year, we were able to bring on numerous foresters. And as we look at how do we move through this next round of hiring, we are also looking at that need.

Also, we do have men and women from other agencies, like state agencies and other groups that have helped us with this over the years, but we saw that internally we need to have more foresters on staff. So, we are in the process of doing that, but we were able to bring on several last year, and we will be bringing on several this next year.

Mr. LAMALFA. Thank you, and I think you kind of touched on my next thought here on regional flexibility. Different regions have different concerns and unique needs, so are the programs flexible enough to allow that kind of practice [inaudible] regions and for needs? [inaudible] resources around to meet each region's unique needs? Is there something we need to be doing to help give that flexibility to move personnel or have the programs work from one region to the next where you have unique landscapes, *et cetera*?

Mr. COSBY. And I think we built that flexibility into most of our programs. As we talked before, we talk about the locally-led process where folks on the local level get together, talk about what the resource needs are, and also, then we look at statewide what are those resource needs, and then nationally what are the resource needs? And we try to marry those and make sure we have a balanced approach when we are implementing these programs. So, that is already baked into the pie, and so, we are happy about that. And the folks on the local level and at the state level have a lot of flexibility when it comes to these programs, working through and with the state technical committee, and all the groups out there that make up that state technical committee.

Mr. LAMALFA. Okay, and last, and I will yield back, but the COVID closures, again, are really making it difficult to get timely assistance through the conservation programs in certain areas. Some of the offices in my district are just having a devil of a time, folks getting in there and getting things signed up, *et cetera*. So, I hope we can release more people and have more flexible hours under the COVID closures, and so I will leave it at that.

Thank you, Madam Chair, and I will yield back.

The CHAIR. Thank you very much to the Ranking Member, and to the witnesses, thank you for your efficiency in answering questions. I think we have made great time and answered a wide array of questions.

So, with that, I would like to move forward with a second round, and I will recognize myself first for 5 minutes.

I wanted to begin by just commenting on the comments from my colleague, Mr. DesJarlais, who talked about our producers being climate heroes, and I could not agree with him more. And certainly, I have heard from producers in my district the challenge that they sometimes feel like they are positioned to seem like, to use Mr. DesJarlais' term, *climate criminals*. And so, I am really excited about the work that this Subcommittee does, and certainly the work of your agencies, because I think that it does affirm what my colleague from Tennessee said, which is our farmers and producers are the original conservationists, and they are the climate heroes.

And so, in being really forward leaning and hearing some of the comments from my colleagues on the other side of the aisle, there is the discussion of making sure that the conservation title stays the conservation title and not the climate title. And I think I would just note that there is real great value in seeing all of the benefits of these incredible programs. As Chair of the Conservation and Forestry Subcommittee, and as the only Virginian on the Agriculture Committee, and as someone who has been daydreaming of working on a farm bill since I first arrived in Congress, I do look forward to continuing to strengthen the conservation title, but recognizing that it has real benefits and value to our climate, but also to our farmers and producers.

So, to that end, I would like to begin with you, Mr. Ducheneaux, to follow up a little bit on the line of answers that you were giving earlier where, some of us have really been talking a lot about the climate benefits of these different programs, right, that is an exciting element of these programs. But I was wondering if you could explain a bit more—and Mr. Cosby, I welcome you to follow suit. Can you explain a little bit more why farmers and producers want to be a part of this program? And so, while we call them conservation programs, they have climate value, they also have economic value to our rural communities and our producers.

So, could you maybe walk me through, what is the financial gain or the benefit to our nation's producers of these programs?

Mr. DUCHENEUX. Thank you, Madam Chair.

Conservation equals soil health. Soil health equals improved production, and the fact of the matter is that according to the last time the ERS tabulated the data, only 7¢ to 14¢ of the food dollar are getting back to the producers. So, we have to find a way to improve income streams for producers so that they have the capability to join us in the fight to sequester carbon and mitigate climate change. And I think it is important that we include them in the conversations very early on, as to what is climate-smart, what are climate change mitigation strategies, and we have done that through a couple of different requests for input, getting hundreds of comments from diverse stakeholders, big ag companies, and the like, so that we know what we are going forward into is going to be beneficial all the way across the ag industry.

The CHAIR. To just dig into that a little bit more, and I open this up to either one of you. Your experiences on the ground, what are the financial benefits? What are the cost savings? What does it

mean for a farmer producer to actually participate in this program from an economic standpoint of their day-to-day operation?

Mr. DUCHENEAUX. I will go ahead.

Take our CRP Grasslands Program, for instance. That lets the producer get into an NRCS-approved plan, continue to have the same level of production, but also be able to quantify the amount of increased production that they are generating. So, then in addition to getting a rental payment, they are also getting added production out of their existing resources.

The CHAIR. So, in layman's terms, rental payment equals income incoming. Increased production is they are producing more that they can sell.

Mr. DUCHENEAUX. Exactly, yes.

The CHAIR. Mr. Cosby?

Mr. COSBY. Ma'am, we could talk all day about this topic, and I would love to have this conversation because it is exciting to be part of the conversation. When we work with producers out in the land, it is just great to see the enthusiasm they have for conservation, and they want to do the right thing. And they will do the right thing, if they have the right information, and my agency is a science-based agency, and everything we do is science-based. And just the benefits of soil health, having that healthy soil and being able to raise that crop and looking at the profitability from that. The resiliency of these farms out there, it is outstanding.

When you look at most of the programs that we administer, you look at the co-benefits of all the things that we do, from water quality to quantity and quality, also for wildlife habitat and some of the great things that are happening around this country on working lands, when we have that wildlife benefit. It is exciting to see farmers react to that and want to do the right things. And, we can do all of those things in a way that sustains farms. Sustainability is big for a lot of farmers, and I just wish my dad was here today to see some of these things that are happening, and be a part of the excitement around agriculture. It is very exciting to work in agriculture, right now.

The CHAIR. Thank you very much.

So, to the colleagues on this Subcommittee, whether we get to the table because we are super excited about conservation-related climate-smart benefits or climate benefits, or that we get to the table because it is so exciting to see that we can help ensure that farmers stay on their land, or whether or not we get to the table to put extra dollars in the pockets of our farmers and producers. As the current and future chair of this Subcommittee, that title is going to continue to be the conservation title. And so, I am glad that all of the reasons that bring us to the table have us here working on behalf of our producers.

With that, I now recognize Mr. LaMalfa for an additional 5 minutes. All right. Mr. LaMalfa, we will come back to you in the future.

Mr. Thompson, would you like an additional 5 minutes?

Mr. THOMPSON. Yes, absolutely. Thank you so much.

Gentlemen, thank you to both of you, and this question actually is for both of you. I will give you an opportunity to weigh in as we really begin to build out the framework for the 2023 Farm Bill.

I will start with Administrator Ducheneaux. It will be the same question for both of you. Can you explain about your individual agency perspectives on the 2018 Farm Bill program implementation strengths, and opportunities for improvement?

Mr. DUCHENEAX. Yes, sir, and thank you for the question.

When I came on board in February, there were several things that had their origins in the 2018 Farm Bill that hadn't quite made it across the finish line, so we are really interested in making sure that those get out there and make a meaningful impact, so that we have something to evaluate as we have our future conversations, sir.

One of them is Heirs Properties Relending Program. That hadn't really moved anywhere yet, and we are happy to announce that we have that out, and we have some prospects in the pipeline to help deal with the heirs properties issues all across the South and all across Indian Country.

Another aspect of that 2018 implementation is, for example, the CLEAR expansion and the CREP expansion. Finding that flexibility and then deploying that flexibility, so that we have meaningful information to make future decisions on is really critical, sir.

Mr. THOMPSON. Very good.

Chief Cosby, kind of the same question.

Mr. COSBY. Yes, from the NRCS side, I have talked about it a little bit that we were able to make sure our states had their budget in early October, and that provided 12 months out of the year for them to do planning. And I think that extends the season that we have to work for producers.

Also, when we look at our programs, we talk about CSP, we have been able to modify that to talk about in that fifth year if a producer doesn't have an opportunity to re-enroll, they do—can come right back and not have to sit out for the 2 year period. And when we talk about EQIP, we are looking at how do we make it more flexible? How do we make sure that anyone that wants to benefit from the programs—and that is where the money, the \$50 million that we put out across the country comes in really strong is that we are able to make sure that anyone that wants to walk through the door benefits from USDA programs to have that knowledge and experience, and we are able to work with community-based organizations and universities and a lot of folks across the country to make sure folks understand how these programs work, because they do get a little complicated at times, and we want to make sure they have that opportunity to participate.

And so, we have been looking at the flexibilities of all of our programs, and we have been working through those, RCPP, the flexibility we built there. So, that is something from day 1 that we have been doing, because we want producers to be able to participate without barriers.

Mr. THOMPSON. Very good. Thank you, both of you, and Madam Chair, I yield back.

The CHAIR. The chair now recognizes Ms. Pingree for 5 minutes.

Ms. PINGREE. Thank you very much, Madam Chair, and again, thank you to our witnesses for being here and all of your very helpful answers to our questions.

Mr. Cosby, I am coming back to you again. I just want to ask a little bit about composting as a conservation practice.

So, I have been interested in this for a long time, and pushing NRCS to adopt composting as a conservation practice for several years. But I was encouraged to hear the interim soil carbon amendment process, which includes compost and biochar, was beginning to be rolled out last year. So, could you give me an update on the soil carbon amendment practice, and where and how it has been used so far?

Mr. COSBY. I will tell you, it is something we are pretty excited about, especially when you talk about the standard and also as it applies to our urban folks when you talk about food waste and composting. That standard is working its way through the process, and we are hoping to be able to release it real soon. It is pretty important when you start talking about soil amendments and some of those type things; but we are working through the process and hopefully we will be able to have that out the door really soon.

Ms. PINGREE. And are there some places that it is being used?

Mr. COSBY. We put in interim standards when we do this, and so we are able to use those interim standards until they are fully vetted and finalized, so there are some places that are using it, and we are also doing studies on that to make sure that we hit the mark when we do release it finally. But we do develop interim standards for everything that goes through this process.

Ms. PINGREE. Great. Well, I am glad that is coming out soon, and I look forward to seeing that.

I ran out of time in my last question, so I just want to reinforce the issue I was bringing up about PFAS, and encourage you, and I am happy to follow up with this, to have NRCS doing more, supporting more of the soil testing. I know that you help with soil testing to a certain extent, but the original language was really to have EQIP be used to identify and deal with contaminants. And again, because PFAS is a growing problem because costs of testing are challenging for farmers, it seems to me we could use this more as a tool.

I don't know if you want to comment on that, but I certainly will follow up to encourage that is a possibility that it could be used.

Mr. COSBY. And I would like to visit more with you about this, and hopefully we can follow up after this hearing and we can work through it, and we can look at what the recommendations are and work with your staff to get to a place where we can support our farmers in your state.

Ms. PINGREE. Great. Well, thank you for that, and again, thank you for being with us today and we will be chatting with you in the future. So, thanks so much.

Mr. COSBY. Thank you.

The CHAIR. I see we have two remaining Members. We are going to go to Mr. LaMalfa and then Mr. Allen.

Mr. LaMalfa, you are recognized for 5 minutes.

Mr. LAMALFA. Thanks again, Madam Chair.

To both of our witnesses, I was wondering how something that Mr. O'Halleran had touched upon on the post-fire projects, and how are these watershed protections and such coming along as we had an incredible amount of rain and snowfall in northern California

here immediately after the end of the fire season, and we had a giant washout that took out one of our state highways for weeks. But also, the great concern is about what is that going to do for our waterways, as basically my district is the well for a lot of the rest of the state. And so, we need to be sure that we are advancing this watershed protection and conservation, *et cetera*.

So, how is it? How are they coming along in your view at this point here? Do you have what you need? Are people moving at a swift pace to try and get ahead of over 1 million acres worth of damage?

Mr. COSBY. I will start for NRCS. I will let you know that the watershed program is one of our oldest programs that we administer, and we have had great success. One of the things I am planning—and on some of these watersheds, we do have a 2,025 acre limitation unless written by you folks to say that we can waive that. Under our flood prevention, we do have our Emergency Watershed Program. It does work very well. We have had a number of requests for things like debris removal and log jams and some of those types of things. So, the staff is receiving those requests. When we receive those in the field, we go out and do a disaster survey to look at what the impacts are on the land, and then those come in for funding as we have the funding. Funding is limited, and so, the staff does work through that to make sure that happens.

And then on the rehab side, we do have some dams out there that have lived past their life expectancy, and we have pipes that are rusting. And so, we are looking at those and seeing how we can go in and rehab those dams.

And so, the process is working very well. It is a sponsor-led program where the sponsors contact us and they do a lot of the work, and then we come in with financial assistance to help with that. So, the program is working well, and so we hopefully can continue that.

Mr. LAMALFA. Thank you.

Also, you mentioned what is called the Joint Chiefs Landscape Restoration Partnership that NRCS works with Forest Service on. We have several of those projects underway in my own district, and one called the Big Valley South Landscape Restoration. Can you talk a little bit more about the work on these projects and the benefits you are seeing with the collaboration, with the partnership? What does that do to enhance what we haven't had before?

Mr. COSBY. It is a great partnership, and as a State Conservationist, I had an opportunity to work with the Forest Service on the Wayne National Forest in southern Ohio. And, we have private land interspersed in and around public land, and a lot of times, there was work being done on public land that should have been done on private land also. And so, it works very well when we are able to partner with the Forest Service to look and ask them where they are going to be working, and then we are able to contact those landowners in and around that area that they are going to be working in, and we can offer conservation planning assistance, we can offer financial assistance so that once the work on public land is done, we can also achieve the same benefits on private land, especially when you get into things like timber stand improvements

or like grape vine removal and some of these things that encroach on other areas. And so, it has been a great collaboration between the two agencies, the Forest Service, and we hope that continues. We know it will continue. We don't hope it continues; we know it will continue. Like I said, we have a great working relationship with the Chief at the Forest Service.

Mr. LAMALFA. Thank you, Chief Cosby, and Madam Chair, thank you. I will yield back to you.

The CHAIR. The chair now recognizes Mr. Allen for 5 minutes.

Mr. ALLEN. Okay, thank you, Madam Chair.

Chief Cosby, let's go back to the announcement of funding of projects for the Feral Swine Eradication and Control Pilot Program. Can you update the Committee on the status of these projects?

Mr. COSBY. Yes, and thank you, sir, for the question.

We have been involved. It is a program where the money is embedded to other agencies to carry out. We help with things like trapping, but we do not provide money to actually exterminate those animals. It has been really popular in the southern part of the country. I know as the feral hogs move further, we will be probably getting into more of that. But it has been very popular. It has worked very well for us to work with those agencies, like APHIS and some of the rest of them, to transfer those dollars to help with this, and we know it is a problem.

Mr. ALLEN. And obviously, it continues to be a problem. Will there be additional projects, amounts, and funding in the coming year?

Mr. COSBY. We hope so. We will take that back and take a look at it, and as we look at programs and how they are funded, we will take that under consideration.

Mr. ALLEN. Okay, and Administrator, going back to the climate thing. Of course, you mentioned that the farmers are only getting like 7¢ to 10¢ of the value of that. Have we looked at, from the standpoint of this carbon initiative, how much production land have we taken out of the equation, and could that be a possibility of the shortages we are seeing or the increase in food prices?

Mr. DUCHENEAUX. Thank you for the question, sir.

I don't necessarily think that is a factor, because it is a voluntary incentive-based program, and we are really emphasizing the working lands aspect of our Conservation Reserve Program. We hope producers take a look at that, as an opportunity to stockpile feed or foodstuff for the future use, and capitalize on that as an asset. There is a growing movement in the climate industry that is talking about soil wealth, as opposed to soil health, and how do you start to quantify the improved value of your real estate when you are engaging in these practices.

Mr. ALLEN. Exactly.

Mr. DUCHENEAUX. And do that. Yes, sir.

Mr. ALLEN. Well, here is what we need to get to the bottom one. One is obviously to do some of these initiatives, we are using taxpayers' money to do that, correct?

Mr. DUCHENEAUX. Yes, sir.

Mr. ALLEN. Yes, okay. So, we are using the taxpayers' dollars to do that, but then the result of that is we have these empty grocery

shelves and we have inflation as far as the food source is concerned. Input costs have gone out the roof. What efforts is USDA doing to get to research and get to the bottom of what the heck is going on in this economic situation, and really, it is a crisis that we have to deal with. Where are you on that, and what are you trying to do to explain what the heck is going on?

Mr. DUCHENEAUX. Sir, I have not done any research on that, but I will visit with our folks at the Economic Research Service, and see if there is anything that they have, and get in touch with your office on that. But I don't think that it is necessarily a cause-and-effect relationship. The assistance that we provide with taxpayer resources allocated to us through Congressional action is the driver of higher food prices, because it sure isn't getting back to the producers.

Mr. ALLEN. No, and see, that is what my point is. Where is the money going?

Mr. DUCHENEAUX. We will do some research and get back to you. [The information referred to is located on p. 43.]

Mr. ALLEN. Okay. Yes, I think that would be very helpful to our Committee, particularly when we are looking at the new farm bill, because that is, that whole farm bill is an economic project to ensure that Americans have a safe and efficient food source, and in fact, that is what this Committee needs to be laser focused on.

Thank you so much for being with us today, and Madam Chair, I yield back.

Mr. DUCHENEAUX. Thank you, sir.

The CHAIR. Thank you very much.

Before we adjourn today, I invite the Ranking Member of the full Agriculture Committee to share any closing comments he may have.

Mr. THOMPSON. Well, thank you, Madam Chair. Thanks for this hearing. Chief and Administrator, thank you both for being with us here today.

As we work towards the 2023 Farm Bill, we know that we have a lot of responsibility and that means doing great oversight and learning the lessons of what we were able to put into what looks like a very successful 2018 Farm Bill. And so, as we work towards restoring a robust rural economy and really creating the conditions in rural America where we begin to rebuild our population, this was a great start of the conversation today, specifically within the jurisdiction of your two agencies. And so, thank you for that.

This is a great start. We look forward to continuing this conversation so that we are in a position to, at the end of the day when we get that 2023 Farm Bill across the finish line, it is something that we can be very proud of, but more importantly, will be very effective of serving all American families.

So, thank you so much, and I yield back.

The CHAIR. Thank you very much.

I want to thank you both so much for being here today. Thank you for your testimony. The conversation has been very informative. All of the Members who asked questions, I think that all of our notes are pretty substantial. And this is incredibly helpful as we look towards 2023 and the farm bill, as we work to ensure that we can expand access to conservation programs by really bringing

the programs that you all run to new communities, making it easier for producers to participate in programs that they know and that they benefit from.

So, my gratitude to the Ranking Member. We missed having him in person. My appreciation to the Ranking Member of the full subcommittee—excuse me, for the Committee, and just as we close out, Mr. Cosby, I thought that the comments that you made about the 81 new enhancements to CSP, I will be following up because I would love to get an itemized list of those. I am really appreciative of some of the comments and answers that you gentlemen brought to this discussion, and certainly as we close out today, again, Mr. Cosby, I want to say that the legacy that you discussed from your family's experience losing their farmland in Mississippi to the fact that you are now at the helm of programs that allow farmers across the country to make a bit more money and have a bit more stability and income and certainty on their lands is quite a trajectory. So, I am really appreciative that you have brought your perspective and your work here today. Thank you again to both you, Mr. Cosby, and you, Mr. Ducheneaux.

And with that, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any question posed by a Member.

This hearing of the Subcommittee on Conservation and Forestry is adjourned.

[Whereupon, at 11:55 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY USDA

Insert 1

Mr. THOMPSON. . . .

But this is about direct consultation. Did the House, I can tell you, the House Republicans were not consulted, and as Ranking Member, we were not consulted. So, was there direct consultation by the Department with House Democrats, well, let's just start with that, I guess.

Mr. COSBY. The way I would answer that is we provide technical assistance when asked by Members of Congress, and I am sure that there were some conversations that were had.

But we provide technical assistance when we are asked.

Mr. THOMPSON. So, you are not sure?

Mr. COSBY. I am not sure of that.

Mr. THOMPSON. Not sure.

Mr. COSBY. But I can take that question back and get you the answer.

Consistent with the expectation of Congressional offices, USDA generally does not distribute technical assistance beyond the requesting office to ensure we maintain the trust of requesting Congressional offices. Congressional offices may share any technical assistance generated by the Department with fellow Congressional offices and/or other entities.

Insert 2

Mr. ALLEN. . . .

But I would like to specifically ask a question about the CRP program. Right now the biggest problem in that program is flexibility. Every request that my office has made, say, for example, if you want to exchange this property for another piece of property and stay in the program, it has been denied. There is absolutely no flexibility, and of course, as you know, things change, property values change and that sort of thing. And you are in this program 10 to 15 years, why don't we have flexibility in that program?

Mr. DUCHENEAUX. Well, sir, I would offer that I haven't heard a producer ask me about exchanging properties. We will look into that. I know the Secretary has charged us with finding as much flexibility that we can within our existing authorities to benefit producers. So, I will definitely check on that.

Land offered for enrollment in the Conservation Reserve Program (CRP) is evaluated, ranked, and accepted based on how CRP will benefit and restore the land and the related resource concerns associated with that parcel of land. Land is accepted into CRP on a competitive basis where producers offer land during an enrollment period, which is then ranked using an Environmental Benefit Index (EBI) in addition to costs associated with addressing the resource concerns.

To suggest flexibilities to "trade land" would not serve the purpose for what CRP is currently designed to accomplish, nor would it comply with the statute and clear Congressional intent.

Insert 3

Mr. ALLEN. Yes, okay. So, we are using the taxpayers' dollars to do that, but then the result of that is we have these empty grocery shelves and we have inflation as far as the food source is concerned. Input costs have gone out the roof. What efforts is USDA doing to get to research and get to the bottom of what the heck is going on in this economic situation, and really, it is a crisis that we have to deal with. Where are you on that, and what are you trying to do to explain what the heck is going on?

Mr. DUCHENEAUX. Sir, I have not done any research on that, but I will visit with our folks at the Economic Research Service, and see if there is anything that they have, and get in touch with your office on that. But I don't think that it is necessarily a cause-and-effect relationship. The assistance that we provide with taxpayer resources allocated to us through Congressional action is the driver of higher food prices, because it sure isn't getting back to the producers.

Mr. ALLEN. No, and see, that is what my point is. Where is the money going?

Mr. DUCHENEAUX. We will do some research and get back to you.

The Coronavirus (COVID-19) pandemic and related disease mitigation measures introduced numerous, interwoven challenges along food supply chains and caused a rapid, dramatic shift in consumers' food purchasing behaviors. As the pandemic changed and evolved and new issues emerged such as rising energy, agricultural commodity, and labor prices, producers and consumers have continued to adapt. FSA is working collaboratively across the Department to address concerns related

to the costs of inputs. The USDA Economic Research Service (ERS), which anticipates trends and emerging issues in agriculture, food, the environment, and rural America, assisted with providing research on this issue. ERS research and data products provide information related to the food supply chain from the farm to the consumer, including fertilizer prices, price spreads from farm to consumer, food expenditures, food price forecasts, and the distribution of the food dollar. These products can provide insight into the current economic conditions facing consumers and food producers.

Fertilizer Prices: ERS released the *latest farm income forecast*¹ on February 4, 2022. Farm sector production expenses—including expenses associated with operator dwellings—are forecast to increase by five percent (\$20.1 billion) in 2022 from 2021. Nearly all expense categories are forecast to rise during the year, largely due to expectations of higher prices paid by farmers for production inputs. In particular, fertilizer-lime-soil conditioner expenses are forecast to increase 12.0 percent (\$3.4 billion). Based on data from USDA’s National Agricultural Statistics Service (NASS), prices paid by farmers for fertilizers increased 15 percent in 2021 and ERS is forecasting that prices will continue to increase in 2022. The next farm income forecast will be released on September 1, 2022.

Price Spreads from Farm to Consumer: ERS estimates farm to consumer price spreads—the difference between a food’s retail price and the value of the farm commodities used in the food—for a select group of food products. Payments to farmers represent about half of what consumers spend for whole milk, $\frac{1}{3}$ of what they spend for head lettuce, and 20 percent of what they spend for white, all-purpose flour. These estimates can be used to project how changes in a food’s farm value might affect retail food prices, if that change were fully passed on to consumers without changes in costs for processing, transportation, packaging, and other marketing services. The All-Milk price, a broad measure of prices received by farmers for milk, increased from \$17.50 per one hundred pounds (cwt) in January 2021 to \$24.20 cwt in January 2022 (a 38 percent increase). Hard red winter wheat meanwhile rose from \$5.41 per bushel to \$7.47 per bushel over the same time period (also a 38 percent increase). However, *ERS research shows that increases in farm prices have a less than proportional effect on retail prices.*^{2*} If white all-purpose flour sold at retail stores for \$0.50 per pound with a farm value of \$0.10 per pound, for example, then an increase in the product’s farm value to \$0.14 (a 40 percent increase) could raise the retail price to \$0.54 (an eight percent rise). Of course, if costs for milling, transportation, or another marketing services were also rising, the cumulative impact on retail prices will likely be much greater.

Share of income spent on food in U.S. dropped ten percent in 2020 to historic low: The share of U.S. consumers’ disposable personal income⁽¹⁾ (DPI) spent on food in the United States was relatively steady over the last 20 years, decreasing from 9.95 percent in 2000 to 9.58 percent in 2019. However, during the COVID-19 pandemic and economic recession in 2020, the share of DPI spent on food decreased 10.1 percent from the previous year to 8.62 percent, the lowest share in the past 60 years. Consumers spent 1.4 percent more of their incomes on food at supermarkets, convenience stores, warehouse club stores, supercenters, and other retailers (food at home) from 2019 to 2020, while they spent 22.2 percent less of their incomes on food at restaurants, fast-food places, schools, and other places offering food away from home over the same period. Changes in the shares of income spent on food in 2020 resulted, in part, from pandemic-related closures and restrictions at food-away-from-home establishments, as well as from the largest annual DPI increase in 20 years. The increase in DPI was driven by additional government assistance to individuals in 2020, including stimulus payments to households and increased unemployment insurance benefits.

¹ <https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/>.

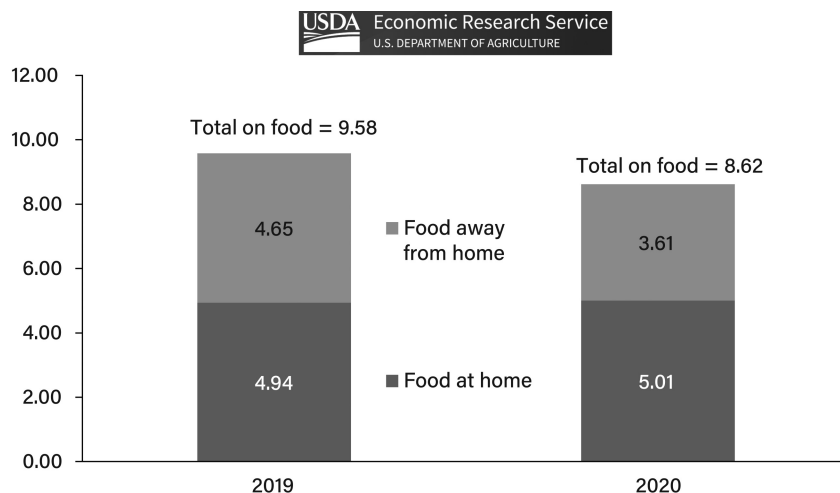
² <https://www.ers.usda.gov/amber-waves/2016/august/processing-and-marketing-blunt-the-impact-of-volatile-farm-prices-on-retail-dairy-prices/>.[†]

* **Editor’s note:** footnotes annotated with † are retained in Committee file.

⁽¹⁾ DPI is the amount of money that U.S. consumers have left to spend or save after paying taxes.

Share of income spent on food in U.S. dropped ten percent in 2020 to historic low

Percent of disposable income spent on food



Note: The percentages in the chart are rounded to the nearest hundredths place. The percent for total on food in 2019 does not equal the sum of the percentages for food at home and food away from home due to rounding.

Source: USDA, Economic Research Service, using data from the Food Expenditure Series.

During the Coronavirus (COVID-19) pandemic and economic recession in 2020, the share of U.S. consumers' disposable personal income (DPI) spent on food decreased 10.1 percent from the previous year to 8.62 percent, the lowest share in the past 60 years. DPI is the amount of money that U.S. consumers have left to spend or save after paying taxes. The share of DPI spent on food in the United States was relatively steady over the last 20 years, decreasing from 9.95 percent in 2000 to 9.58 percent in 2019. Consumers spent 1.4 percent more of their incomes on food at supermarkets, convenience stores, warehouse club stores, supercenters, and other retailers (food at home) from 2019 to 2020, while they spent 22.2 percent less of their incomes on food at restaurants, fast-food places, schools, and other places offering food away from home over the same period. Changes in the shares of income spent on food in 2020 resulted, in part, from pandemic-related closures and restrictions at food-away-from-home establishments, as well as from the largest annual DPI increase in 20 years. The increase in DPI was driven by additional government assistance to individuals in 2020, including stimulus payments to households and increased unemployment insurance benefits. The data for this chart come from the Economic Research Service's Food Expenditure Series data product. See also the AMBER WAVES article *Average Share of Income Spent on Food in the United States Remained Relatively Steady from 2000 to 2019*,³ published in November 2020.

Last updated: Friday, July 02, 2021

For more information, contact: *Eliana Zeballos*⁴ and *Wilson Sinclair*⁵

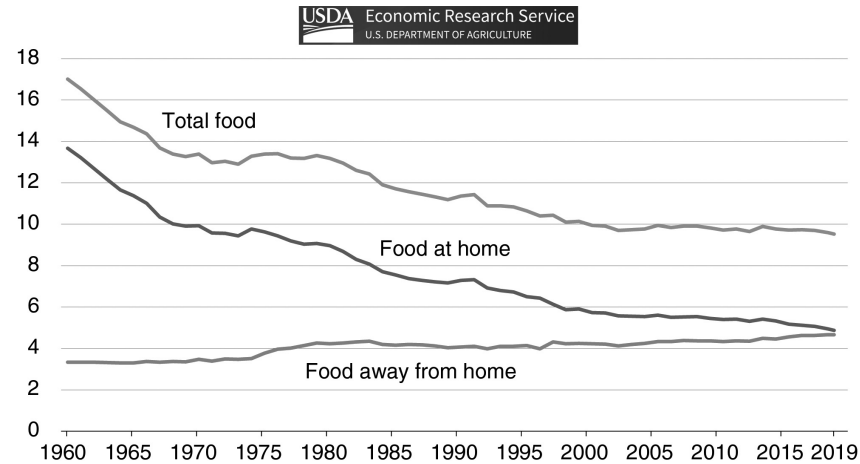
³ <https://www.ers.usda.gov/amber-waves/2020/november/average-share-of-income-spent-on-food-in-the-united-states-remained-relatively-steady-from-2000-to-2019/>.

⁴ <https://www.ers.usda.gov/authors/ers-staff-directory/eliana-zeballos/>.

⁵ <https://www.ers.usda.gov/authors/ers-staff-directory/wilson-sinclair/>.

Average share of income spent on food at home in the U.S. has fallen over time, but less sharply over the last 2 decades

Percent



Source: USDA, Economic Research Service (ERS) using data from the ERS Food Expenditure Series.

In 1960, U.S. consumers spent an average of 17.0 percent of disposable personal income (DPI) on food. By 2019, this share had shrunk to 9.5 percent. This decrease was driven by a decline in the share of income people spent on food at home. The share of DPI spent on food purchased at supermarkets, supercenters, convenience stores, and other retailers fell from 13.7 percent in 1960 to 5.7 percent in 2019. Over the same period, the share of DPI spent on food purchased from restaurants, fast-food places, schools, and other away-from-home eating places rose from 3.3 percent to 4.2 percent. The declining share of income spent on food at home reflects, in part, efficiencies in the U.S. food system (which kept inflation for food-at-home prices generally low) and rising disposable incomes. A slower decline in share of income spent on food at home after 2000 could reflect U.S. consumers opting to prepare more meals at home and purchasing more expensive grocery store options than they did in earlier decades. This chart appears in “Average Share of Income Spent on Food in the United States Remained Relatively Steady From 2000 to 2019,”⁶ in the Economic Research Service’s *Amber Waves* magazine, November 2020.

Last updated: Friday, December 11, 2020 **For more information, contact:** *Eliana Zeballos*⁷ and *Wilson Sinclair*⁸

Food Spending During the Pandemic (2020–2021): Analyzing data from the ERS *Food Expenditure Series*⁹ found expenditures at restaurants, school cafeterias, sports venues, and other eating-out establishments (*i.e.*, food away from home or FAFH) dropped 48 percent from February 2020 to April 2020, the beginning of the COVID–19 pandemic. Inflation-adjusted spending on FAFH in April 2020 was 51 percent lower than April 2019—but by May 2021 spending recovered to exceed the pre-pandemic record set in May 2019. FAFH spending remained strong in December 2021 at 4.4 percent higher compared with pre-pandemic December 2019. FAFH spending surpassed food-at-home (or FAH) expenditures by April 2021 and remained higher than FAH spending for much of 2021. FAH expenditures rose sharply starting in March 2020 and remained higher than 2019 levels, setting a new record of \$90 billion in December 2021. Total inflation-adjusted expenditures on food were 6.5 percent higher in December 2021 compared with December 2019. In March 2020, efforts to limit the spread of COVID–19 included stay-at-home orders that led

⁶ <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=100002>.

⁷ <https://www.ers.usda.gov/authors/ers-staff-directory/eliana-zeballos/>.

⁸ <https://www.ers.usda.gov/authors/ers-staff-directory/wilson-sinclair/>.

⁹ <https://www.ers.usda.gov/data-products/food-expenditure-series/>.

to significant changes in U.S. consumers' food-spending patterns. Food spending patterns in 2021 reflect the effects of the increased reopening of restaurants and increases in household income with economic recovery.

Food Prices: The Food Price Outlook tracks recent trends and provides forecasts on farm-, wholesale-, and retail-level food prices as measured by the Producer Price Index (PPI) and Consumer Price Index (CPI) published by the Bureau of Labor Statistics. The all-food CPI increased by 3.4 percent in 2020 and 3.5 percent in 2021, well above the 20 year average of 2.4 percent. In January and February 2022, the all-food CPI increased by 1.0 percent, and increased by 7.0 percent and 7.9 percent from a year earlier, respectively. The most recent food price forecasts were released February 25th, at the very beginning of the most recent conflicts in Ukraine. At the time of this forecast, food prices were predicted to increase between 2.5 and 3.5 percent in 2022, faster than the historical average. Food-away-from-home prices are predicted to increase between 4.0 and 5.0 percent; food-at-home prices are predicted to increase between 2.0 and 3.0 percent.

The Food Dollar: The ERS *Food Dollar*¹⁰ 'Food at Home: Industry Group' (FAH-IG) series tells us what the distribution of value accumulation (or costs) are along the sequence of activities between farm production, food processing, transportation, marketing, and other supporting activities, culminating in grocery store and related retail food purchases. According to the FAH-IG, 15.2 percent of spending for all grocery store and related retail food purchases covered agribusiness (farm inputs) and farm production cost contributions, with another 63.5 percent of cost contributions coming from food processing (24.5%), wholesalers (16.6%) and food retailers (22.4%). The remaining 21.3 percent of costs come from various other supporting industries. Spending of this type totaled \$876.8 billion in 2020 (see *Food Expenditures*¹¹).

Although food price inflation in 2019 was not nearly as pronounced as in 2020, 2021, or to date in 2022, the 2020 FAH-IG series does show how price pressures were in play between 2019 and 2020. For example, primary factor value added (labor and overhead) costs per unit of output increased most among agribusiness (4%) and farm production (6%) establishments serving the domestic food retail market. More modest per-unit cost increases are shown in other supply chain industry groups, whereas per-unit costs among energy commodities used in domestic food production declined ten percent in 2020—a trend that has clearly reversed in 2021–22. For example, according to the Bureau of Labor Statistics, the year-over-year change in the producer price index (PPI) for electric power rose by over 21 percent in 2021, and the February 2022 monthly PPI is 5.9 percent above the December 2021.

On March 11, 2022, USDA also announced plans to support additional fertilizer production for American farmers to address rising costs and spur competition. USDA will make available \$250 million through a new grant program this summer to support independent, innovative and sustainable American fertilizer production to supply American farmers.

SUBMITTED LETTER BY LOTANNA OBODOZIE, CLIMATE CAMPAIGN DIRECTOR,
NATIONAL YOUNG FARMERS COALITION

Hon. DAVID SCOTT,
Chairman,
House Committee on Agriculture,
Washington, D.C.;

Hon. ABIGAIL DAVIS SPANBERGER,
Chair,
Subcommittee on Conservation and Forestry,
House Committee on Agriculture,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
House Committee on Agriculture,
Washington, D.C.;

Hon. DOUG LAMALFA,
Ranking Minority Member,
Subcommittee on Conservation and Forestry,
House Committee on Agriculture,
Washington, D.C.

Re: In Regards to the Farm Bill Conservation Programs Hearing before the U.S. House of Representatives Committee on Agriculture, Subcommittee on Conservation and Forestry

Date: February 2, 2022

¹⁰ <https://www.ers.usda.gov/data-products/food-dollar-series/>.

¹¹ <https://www.ers.usda.gov/data-products/food-expenditure-series/>.

The National Young Farmers Coalition (Young Farmers) thanks the U.S. House of Representatives Committee on Agriculture for holding this hearing on farm bill conservation programs. Climate change is an increasing and persistent threat to agriculture, disrupting food production across the country and the rest of the world. The agricultural sector, however, is uniquely poised to be able to directly mitigate the disastrous effects of climate change through practices that sequester carbon in the soil and provide other ecosystem services to build on-farm climate resilience. Farm bill conservation programs are critical elements in combating climate change as well as improving access to land for the next generation. We thank the Honorable David Scott, Glenn “GT” Thompson, Abigail Spanberger, and Doug LaMalfa for holding this hearing to discuss impacts of and opportunities for improving farm bill conservation programs.

The National Young Farmers Coalition works closely with young farmers across the country to assist them in building resilience to climate change through training, building farmer networks across the U.S., and advocating for policy change at the state and Federal level. Our campaigns focus on key issues, identified by our members, to address the major obstacles young farmers face.

In a 2017 national survey of our coalition, 66% of respondents reported experiencing unpredictable weather and 53% attributed those changes to climate change.¹ Furthermore, in a 2020 survey of policy issues, our members across the country identified addressing climate change as their number one priority.² Young farmers, particularly Black, Indigenous and other people of color (BIPOC) farmers are on the frontlines of experiencing and responding to this crisis. Our farmers have experienced increased pest pressure, uncertainty and severe fluctuations in water supply, and increased rates of disease, with seemingly no end in sight. Young farmers have lost crops and sustained damage to their farms due to extreme weather events, have had disrupted growing seasons, suffered severe economic losses, and have shut down operations due to droughts and unsafe conditions from uncontrolled wildfires.

Further compounding this issue is the lack of access to affordable, quality land, as farmland, agriculture, and the climate crisis are deeply intertwined. Land is the foundation of nourishment and resiliency and is the number one tool available to farmers in the fight against climate change. Land that is stewarded plays a critical role in climate change mitigation and resilience, yet accelerating trends of farmland loss are occurring disproportionately on soils rated highest for productivity, versatility, and resiliency.³ Additionally, the dispossession of land from BIPOC individuals and the ongoing consolidation of land into the hands of fewer and fewer owners makes this issue all the more difficult for BIPOC farmers. Secure land tenure is critical to farmers’ ability to remain in the field long-term and to making deep-rooted and long lasting climate interventions. Despite being heavily affected by climate change, farmers have the transformative power to sequester carbon by using climate-smart methods including planting cover crops, using no- and reduced-till methods, and managed grazing. By incorporating these methods and others like them, farmers can simultaneously provide healthy food to their local communities—but they can only do so with access to land.⁴

Farm bill conservation programs, such as the Environmental Quality Incentives Program (EQIP), the Agricultural Conservation Easement Program (ACEP), the Regional Conservation Partnership Program (RCPP), the Rural Energy for America Program (REAP), and the Conservation Stewardship Program (CSP) are all tools that can assist farmers in achieving climate resiliency, however, many of our farmers are not using these programs. Only 46% of our national survey respondents reported using Federal programs, and first-generation farm owners in particular were less likely to have used Federal programs.⁵ The number one reason cited by our farmers is that they’re not using these programs because they do not know about

¹ Sophie Ackoff, Andrew Bahrenburg, and Lindsey Lusher Shute, *Building a Future with Farmers II*, † National Young Farmers Coalition, November 2017, www.youngfarmers.org/wp-content/uploads/2017/11/NYFC-Report-2017.pdf.

Editor’s note: footnotes annotated with † are retained in Committee file. **Further note:** the above hyperlink is no longer active: <https://www.youngfarmers.org/wp-content/uploads/2019/03/NYFC-Report-2017-LoRes-Revised.pdf>

² National Young Farmers Coalition, “2021 Climate Policy Recommendations,” † May 2021, <https://www.youngfarmers.org/2021/05/2021-climate-recommendations/>.

³ Julia Freedgood, Mitch Hunter, Jennifer Dempsey, and Ann Sorensen, *Farms Under Threat: The State of the States*, † American Farmland Trust, 2020.

⁴ Holly Rippon-Butler, *Land Policy: Toward a More Equitable Farming Future*, † National Young Farmers Coalition, 2020, <https://www.youngfarmers.org/land/wp-content/uploads/2020/11/LandPolicyReport.pdf>.

⁵ Sophie Ackoff, et al., “Building a Future with Farmers II,” † November 2017, <https://www.youngfarmers.org/resource/building-a-future-with-farmers-ii/>.

them—a sentiment that has been echoed over and over again. The USDA must expand accessibility by prioritizing the design and modification of new and existing programs that resource farmers and encourage a new generation of farmers to fight climate change. Intentional outreach must also take place, and this outreach will require resources and trust-building.⁶

Time and administrative burdens were also reported to be a significant barrier to accessing these programs.⁷ In addition to farm work, many of our farmers have other concurrent responsibilities—supplemental jobs, caretaking, education, *etc.*—and do not have the time or bandwidth to spend on laborious application processes. There is also the perception among young farmers that these programs were not made for them, and therefore are not appropriate for their operations. Young farmers are operating small, diversified farms, and many have stated that they do not feel as if these farm bill programs will work for them. USDA officials and technical assistance providers often lack the cultural competency to advise young farmers because of the type of operations they run. To support the next generation of young farmers and ranchers, transition productive farmland, and revitalize our nation's rural communities, considerable progress must be made in the way that USDA serves young farmers.

Recent efforts to improve EQIP and the Conservation Stewardship Program (CSP) will increase accessibility for young, marginalized farmers and are a step in the right direction,⁸ however more work needs to be done to fully enable farmers to invest in on-farm conservation. By increasing the transparency of programs that help historically underserved farmers and ranchers gain access to land and other government services, we can begin the important work of addressing the climate crisis and investing in a sustainable and resilient future with farmers leading the way.

Young Farmers would like to thank the Honorable David Scott, Glenn 'GT' Thompson, Abigail Spanberger, and Doug LaMalfa for convening this hearing to discuss farm bill conservation programs. These programs are critical for combating climate change and improving access to land. We look forward to working with you to find ways to make these programs work for young, beginning, and BIPOC farmers.

Sincerely,

LOTANNA OBODOZIE,
Climate Campaign Director,
National Young Farmers Coalition.

SUBMITTED STATEMENT BY LESLI ALLISON, EXECUTIVE DIRECTOR, WESTERN
LANDOWNERS ALLIANCE

Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, the Western Landowners Alliance (WLA) appreciates the opportunity to submit this statement on Farm Bill Conservation Programs. The Western Landowners Alliance is a landowner-founded, landowner-led nonpartisan organization that advances policies and practices that sustain working lands, connected landscapes and native species. Our members represent millions of acres of leased and deeded land across the West.

Background

Every year we lose more farms and ranches to development. Those that remain are under increased pressure to provide not just food and fiber but a range of other public benefits such as wildlife habitat which can increase the cost of production. Farm bill programs represent an important public-private partnership that enables producers to provide these public benefits while remaining economically viable.

WLA appreciates the efforts of Members of the Subcommittee in developing and passing the 2018 Farm Bill. Certain changes made to programs improved the availability of programs for farmers and ranchers throughout the West. For example, improvements to the Grasslands Conservation Reserve Program (GCRP), including expanded ranking criteria and adjusted payment rates, resulted in record-breaking signups, a win-win for producers and native grasslands.

⁶National Young Farmers Coalition, "2021 Climate Policy Recommendations," † May 2021, <https://www.youngfarmers.org/2021/05/2021-climate-recommendations/>.

⁷Sophie Ackoff, *et al.*, "Building a Future with Farmers II," † November 2017, <https://www.youngfarmers.org/resource/building-a-future-with-farmers-ii/>.

⁸National Sustainable Agriculture Coalition, "Release: NRCS Announces Improvements to CSP and EQIP," † January 2022, <https://sustainableagriculture.net/blog/release-nrcs-announces-improvements-to-csp-and-eqip/>.

At the same time, this and other farm bill programs could be further refined and better implemented to support both agriculture and natural resource conservation in the region. Following GCRP sign-up 203, we surveyed our membership on their interest in the program and their experience enrolling. Based on the feedback we received, along with other first-hand experience with other USDA conservation programs, we offer the following general comments on farm bill conservation programs.

WLA Comments

Agency Capacity

Landowners reported that internal communication challenges and capacity issues within the USDA hinder program delivery. Any discussion on successes and challenges of conservation programs must include a focus on increasing capacity of the agencies charged with implementing them. Providing the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA) with sufficient staffing and resources is key to effective implementation of conservation programs. Without adequate staffing, these agencies are unable to provide sufficient technical assistance, expertise and process enrollment applications. Beyond staff capacity, the issue of staff turnover and relocation was also cited as a considerable barrier to more effective implementation of farm bill programs in rural communities.

Program Complexity and Delivery

Complexity of the enrollment and agreement processing also limits the efficacy of staff and serves as a barrier to entry for interested landowners. The amount of paperwork required to carry out programs should not be so cumbersome that staff do not have time to learn conservation programs or assist landowners in the field. Landowners reported being overwhelmed by the number of steps required to enroll, additional uncommunicated requirements after enrolling, and felt a lack of transparency around the process. Some of this likely stems from USDA capacity issues again, but it is clear that moving forward, program delivery and improved outreach to landowners is an essential component of improving farm bill conservation programs.

Resource Coordination

Increased funding for Federal conservation programs will only do so much without a dedicated focus on simplifying the process for producers and exploring how to better leverage the capacity of trusted, local leaders to conduct community outreach and assist producers in navigating the suite of conservation programs offered. To improve program delivery, and increase outcomes for producers and the resource, USDA should explore placing jointly-funded, dedicated “resource coordinator” staff positions within community-based organizations. Coordinators would be trained experts, providing capacity for outreach as well as an informative, time-saving point of contact for landowners. They would be knowledgeable on a wide range of USDA programs, but also familiar and able to work across state and Federal departments and jurisdictions to help align interagency expertise, priorities and funding. This approach would provide for greater coordination, efficiency, cost-savings and more effective utilization of Federal funding while also increasing local capacity for collaborative conservation.

Rewarding Biodiversity Stewardship

The cost of at-risk species conservation and listed species recovery efforts is often disproportionately placed on farmers and ranchers. Species displaced by land development, resource extraction or other activities often find safe harbor on private lands. Recent improvements to GCRP are a powerful step in the right direction toward the farm bill better recognizing this, particularly with refinement in the areas above. The Working Lands for Wildlife program also effectively advances proactive, collaborative conservation on private land and warrants additional funding as threats to biodiversity mount.

Conclusion

WLA appreciates the opportunity to submit this statement. The 2018 Farm Bill took significant strides forward in advancing WLA priorities addressed above. We look forward to working with you to continue to improve conservation program accessibility and practicality for western working lands. This work is imperative if we are to combat threats such as climate change, habitat fragmentation and biodiversity loss while ensuring economic viability of producers and rural communities.

SUBMITTED STATEMENT BY COLIN O'NEIL, LEGISLATIVE DIRECTOR; ANNE SCHECHINGER, MIDWEST DIRECTOR, ENVIRONMENTAL WORKING GROUP

To avoid the worst effects of climate change, we must swiftly reduce greenhouse gas emissions from agriculture. But a small fraction of Department of Agriculture conservation spending flows to practices that reduce greenhouse gas emissions, and the reforms included in the 2018 Farm Bill have done little to make these practices a priority.

To address the climate crisis, Congress must quickly enact the Build Back Better Act, which includes \$27 billion for conservation practices that reduce greenhouse gas emissions, and must fundamentally reform the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Conservation Reserve Program (CRP), and other voluntary conservation programs to make the reduction of emissions as well as long-term and permanent storage of carbon the focus of these programs.

Structural practices designed to boost farm income—such as irrigation pipelines, manure lagoons, roofs and roads—should not be financed through conservation programs.

Agriculture is not only one of the biggest sources of water pollution in the United States, *impairing drinking water*¹ for millions of Americans and contributing to toxic algae blooms and hypoxic dead zones. Agriculture is also a significant and growing *source*² of greenhouse gas emissions that, if left unaddressed, will jeopardize our efforts to avoid a climate crisis. In particular, *nitrous oxide*³ emissions from fertilizing crops and animal feed, and the *methane*⁴ emissions from livestock and their manure, are growing sources of greenhouse gas emissions. Carbon dioxide from tilling fields is also important to agriculture's emissions footprint. Unless we reduce nitrous oxide, carbon dioxide and methane emissions from agriculture, we will fail to make the greenhouse gas reductions *needed*⁵ to avoid the worst impacts of climate change.

Voluntary conservation programs administered by the USDA could play a significant role in reducing the impacts of farm pollution, reducing greenhouse gas emissions, and mitigating the effects of climate change.

But many farmers are *turned away by USDA*⁶ when they apply to participate in voluntary conservation programs, because the department lacks the resources to accommodate them. Last year, more than 100,000 farmers were *turned away*⁷ by USDA from participating in its two flagship working lands conservation programs. What's more, most conservation funding flows to practices that fail to reduce emissions and actually increase emissions, in some cases.

Congress must provide more resources for USDA's voluntary conservation programs and must ensure that conservation funds get directed toward the conservation practices that will reduce greenhouse gas emissions. The same practices that reduce nitrous oxide and methane emissions also improve air and water quality and make our farms better able to withstand the extreme weather caused by climate change.

To address the climate crisis, the Committee should:

(1) Make climate change the primary focus of conservation practices. Congress must significantly increase USDA resources targeted at reducing agricultural greenhouse gas emissions and increasing climate resiliency. The historic investments proposed in the Build Back Better Act would provide a once-in-a-generation opportunity to increase funding and target conservation investments in practices that reduce greenhouse gas emissions. Congress should look to the policy reforms in the Climate Stewardship Act introduced by Sen. Cory Booker (D-N.J.) and Rep. Abigail Spanberger (D-Va.) for additional guidance on climate investments and reform ideas.

¹<https://www.ewg.org/news-insights/news/midwest-farm-states-nitrate-pollution-tap-water-more-likely-lower-income>.†

Editor's note: footnotes annotated with † are retained in Committee file.

²<https://cfpub.epa.gov/ghgdata/inventoryexplorer/#agriculture/entiresector/allgas/category/all>.

³<https://cfpub.epa.gov/ghgdata/inventoryexplorer/#allsectors/allsectors/nitrousoxide/inventsect/all>.

⁴<https://cfpub.epa.gov/ghgdata/inventoryexplorer/#allsectors/allsectors/methane/inventsect/all>.

⁵https://www.science.org/doi/10.1126/science.aba7357?url_ver=Z39.88-2003&rft_id=ori:rid:crossref.org&rft_dat=cr_pub%20%20pubmed.

⁶<https://www.ewg.org/news-insights/news/2021/08/growing-farm-conservation-backlog-shows-need-congress-spend-smarter>.†

⁷<https://www.ewg.org/news-insights/news/2021/08/growing-farm-conservation-backlog-shows-need-congress-spend-smarter>.†

In the past year, USDA has taken steps to incorporate climate goals in its conservation programs, including, among other things, establishing a *pilot program*⁸ within EQIP for “climate-smart” agriculture and forestry practices in FY 2021; announcing a *new initiative*⁹ to finance the deployment of climate-smart agriculture and forestry practices; *creating*¹⁰ a new Climate-Smart Practice Incentive for general and continuous signups within CRP; and most recently *releasing*¹¹ an updated list of climate-smart agriculture and forestry practices for CSP and EQIP for FY 2022 enrollment.

Although that is an important first step, much more must be done to ensure that existing conservation programs focus on climate goals and do not fund practices that exacerbate the climate crisis.

For example:

- Many of the practices identified as “priority practices” by states to be eligible for higher 90 percent cost share under EQIP don’t reduce greenhouse gas emissions, or they actually increase emissions. (*e.g.*, Agrichemical Handling Facility, Livestock Pipeline and Well Decommissioning; see *Appendix*).
- Several practices eligible for enrollment in EQIP’s Conservation Incentive Contracts (CIC)^[i] either do not address greenhouse emissions or actually increase emissions, as is the case with Surface Roughening and Short Term Storage of Animal Waste and Byproducts (see *Appendix*).^[ii]
- The list of climate-smart agriculture and forestry practices identified within CSP fails to include bundles of enhancements (*e.g.*, Buffer Bundle, Crop Bundle #1—Precision Ag-No Till), which consistently rank among the most effective conservation activities eligible for CSP payments.
- Agricultural land easements do not require that producers adopt any of the climate-smart agriculture and forestry identified within EQIP or CSP as a condition of enrollment.

(2) End or reduce support for practices that do not reduce pollution. USDA should fund only practices that provide clear public health benefits or are highly effective at addressing the most pressing resource concerns, such as reducing agricultural greenhouse gas emissions and protecting sources of drinking water from farm runoff.

A number of conservation practices (*e.g.*, Land Clearing and Deep Tillage) financed through EQIP actually contribute to the climate crisis, according to the government’s own data (see *Table 9* in *Appendix*).^[iii] Meanwhile, other practices fi-

⁸ <https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=46894>.†

⁹ <https://www.usda.gov/media/press-releases/2021/09/29/usda-announces-3-billion-investment-agriculture-animal-health-and>.†

¹⁰ <https://www.fsa.usda.gov/news-room/news-releases/2021/usda-announces-new-initiative-to-quantify-climate-benefits-of-conservation-reserve-program>.†

¹¹ <https://www.usda.gov/media/press-releases/2022/01/10/usda-offers-expanded-conservation-program-opportunities-support>.†

^[i] The Conservation Incentive Contracts subprogram of EQIP was established by the 2018 Farm Bill. It provides NRCS with unique tools to address the most pressing resource challenges across the country, including addressing climate change through reducing agricultural greenhouse gas emissions and increasing carbon sequestration efforts. However, EWG analysis finds that in its current form, EQIP CIC does not meet the clear intent of Congress. When Congress passed the 2018 Farm Bill, the managers included clear guidance about how such a program should be implemented. Report language states that the managers anticipate incentive practices with “broad resource benefits (including, but not limited to, cover crops, transition to resource-conserving crop rotations, and incorporation of precision agriculture technologies into agriculture operations) will be available to producers within the program.”

^[ii] Section 2304(b)(2) of the Agriculture Improvement Act of 2018 allows states to identify ten highly effective conservation practices to be eligible for higher 90 percent cost-share payments through EQIP. Under current law, states are only allowed to offer higher 90 percent cost-sharing for new and beginning, veteran or socially disadvantaged farmers. All other producers are eligible for only up to 75 percent cost-sharing. Among other things, the 2018 Farm Bill Conference Report notes that the managers intend for the increased incentives to promote further adoption of these highly beneficial practices by producers in high priority watersheds.

^[iii] To assess the environmental benefits of EQIP practices, EWG used the *Conservation Practice Physical Effects* (https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/econ/tools/ncid=nrcs143_009740) (CPPE) matrix—a tool NRCS uses in combination with other proprietary software to evaluate and rank the effectiveness of conservation activities in addressing specific causes of impairment (*e.g.*, nutrients in surface water) within resource concerns (*e.g.*, water quality). The CPPE scores how effective a practice is for addressing an impairment with –5 meaning it makes it demonstrably worse, and +5 meaning it’s highly effective. EWG added the scores each practice received across all 47 specific causes of impairment and created a total score. The highest EQIP practice, riparian forest buffer, received a 98. The lowest practice, land

nanced through EQIP and CSP provide little to no benefit to the environment or public health.

Many capital-intensive infrastructure improvements currently funded by conservation programs should instead be financed through an expanded conservation loan program. According to *EWG analysis*,¹² historically, payments for high-cost structures, equipment or facilities appeared in 38 percent of contracts but received 62 percent of EQIP payments.

Congress sought to incentivize the adoption of highly effective conservation practices through EQIP and CSP in 2018 Farm Bill. Although the Natural Resources Conservation Service (NRCS) has improved its implementation in the past year, EWG analysis finds that the practices eligible for higher cost-sharing or priority under EQIP often do not align with Congressional intent.

In 2021, few states chose to include the highest ranking EQIP practices when choosing which ten practices would be eligible for higher 90 percent cost sharing. NRCS must provide clearer guidance or limits on the types of conservation practices that states can elect as being high priority practices for purposes of higher cost sharing (see *Appendix*).

(3) Focus investments on long-term and permanent benefits. USDA must swiftly prioritize and expand the number of acres enrolled in long-term CRP contracts and permanent easements to reduce nitrous oxide emissions from fertilizer applications, protect drinking water supplies and ensure long-term storage of carbon in soils and biomass while reducing support for short-term land retirement contracts where benefits are fleeting.

The 2018 Farm Bill included a number of reforms^[iv] to prioritize long-term contracts within CRP, but much more needs to be done to prioritize longer-term contracts or permanent easements for environmentally sensitive lands and end the enrollment of prime farmland in short-term contracts. For instance, *EWG analysis*¹³ has found that millions of acres of land enrolled through 10 year general CRP contracts go back into production when the contracts expire or crop prices rise. When contracts expire and land is returned to farming, soil carbon is released into the atmosphere.

Although USDA has increased incentive payments for continuous CRP and water quality practices, the number of acres enrolled through high priority categories like Conservation Reserve Enhancement Program (CREP) *stand*¹⁴ roughly 500,000 acres less than they were a *decade ago*,¹⁵ and CLEAR30 enrollment accounts for less than one percent of total acres enrolled in Clean Lakes, Estuaries and Rivers (CLEAR). It is critical that we shift priorities within CRP from short-term contracts to temporarily restore farmland in favor of long-term or permanent restoration projects that will produce long-lasting benefits.

Finally, long-term contracts for working lands practices must focus on highly effective conservation activities with broad resource benefits. When Congress established EQIP CIC in the last farm bill, it anticipated that USDA would focus this longer-term, 5 to 10 year contract period on incentive practices with “broad resource benefits.” However, EWG analysis finds that too many practices eligible for incentive payments are one-time practices that do not deserve long-term contracts (*e.g.*, Emergency Animal Mortality Management) or are more akin to on-farm projects a farmer would presumably fund themselves (*e.g.*, Surface Roughening; see *Appendix*). Focusing on highly effective management and vegetative practices would be the most cost-effective way for NRCS to focus limited resources and meet Congressional expectations.

clearing, received a -22. EWG then gave each practice a rank from 1 to 166 for how well each practice scored.

¹² <https://conservation.ewg.org/>.

¹³ <https://www.ewg.org/research/retired-sensitive-cropland-here-today-gone-tomorrow>.†

^[iv] The 2018 Farm Bill established for the first time a minimum number of acres to be enrolled through the continuous categories of CRP, like CREP and new CLEAR Initiative. It also established a CLEAR30 Pilot Program where producers could enroll eligible land for 30 year contracts. Unlike general CRP contracts, which pay farmers to convert large tracts of land to grass for 10 years and then return them to production, CLEAR30 will result in longer-lasting climate, environmental and public health benefits in watersheds that are significantly impacted by farm pollution, like the Western Lake Erie Basin and Chesapeake Bay.

¹⁴ <https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/Conservation/PDF/OnePager%20December%202021%20CRP.pdf>.†

¹⁵ <https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/Conservation/PDF/septonepager0912.pdf>.†

EWG thanks the Subcommittee on Conservation and Forestry of the House Agriculture Committee for holding today's hearing reviewing the conservation programs authorized by the farm bill.

Respectfully submitted on behalf of the Environmental Working Group,

COLIN O'NEIL,
Legislative Director;
ANNE SCHECHINGER,
Midwest Director.

APPENDIX

Table 1. 20 Most Common HPP Offered by States

Practice	Practice Code	No. of States Offering Particular HPP	Total CPPE Score (98 highest, -22 lowest)	CPPE Rank (1 = best, 166 = worst)	Address Emissions of GHGs (CPPE)
Riparian Forest Buffer	391	21	98	1	3
Residue and Tillage Management, No-Till	329	19	57	17	4
Cover Crop	340	19	61	14	3
Nutrient Management	590	16	57	18	4
Filter Strip	393	14	62	12	1
Riparian Herbaceous Cover	390	13	75	9	2
Field Border	386	12	46	24	1
Prescribed Grating	528	12	78	7	2
Waste Storage Facility	313	10	14	107	-1
Conservation Crop Rotation	328	10	54	20	1
Residue and Tillage Management, Reduced-Till	345	9	46	22	3
Conservation Cover	327	9	79	6	4
Upland Wildlife Habitat Management	645	8	39	30	2
Pasture and Hay Planting	512	8	41	28	4
Irrigation Water Management	449	8	46	23	1
Forest Stand Improvement	666	8	58	16	3
Tree/Shrub Establishment	612	8	97	2	4
Wildlife Habitat Planting	420	7	24	63	3
Streambank and Shoreline Protection	580	7	32	43	1
Prescribed Burning	338	7	38	33	2

Table 2. 20 Lowest Overall[1] Ranked HPP Offered by States According to the CPPE

Practice	Practice Code	No. of States Offering Particular HPP	Total CPPE Score (98 highest, -22 lowest)	CPPE Rank (1 = best, 166 = worst)	Address Emissions of GHGs (CPPE)
Groundwater Testing	355	1	0	160	0
Denitrifying Bioreactor	605	5	2	157	-1
Firebreak	394	3	2	156	1
Agrichemical Handling Facility	309	5	3	155	0
Saturated Buffer	604	5	3	152	0
Structures for Wildlife	649	2	7	145	0
Tree/Shrub Site Preparation	490	1	8	142	0
Livestock Pipeline	516	2	9	137	0
Stream Crossing	578	4	9	134	0
Aquatic Organism Passage	396	5	10	133	0
Salinity and Sodic Soil Management	610	1	10	128	1
Water and Sediment Control Basin	635	3	10	127	0
Well Decommissioning	351	5	10	126	0
Animal Mortality Facility	316	6	11	125	1
Energy Efficient Agricultural Operation	374	2	11	124	2
Waste Facility Closure	360	1	11	122	1
Open Channel	582	1	12	120	0
Short-Term Storage of Animal Waste and Byproducts	315	1	12	119	-1
Underground Outlet	620	4	13	115	0
Fence	382	6	14	112	1

Table 3. 20 Highest Overall Ranked HPP Offered by States According to the CPPE

Practice	Practice Code	No. of States Offering Particular HPP	Total CPPE Score (98 highest, -22 lowest)	CPPE Rank (1 = best, 166 = worst)	Address Emissions of GHGs (CPPE)
Riparian Forest Buffer	391	21	98	1	3
Tree/Shrub Establishment	612	8	97	2	4
Windbreak/Shelterbelt Establishment and Renovation	380	2	87	4	4

Table 3. 20 Highest Overall Ranked HPP Offered by States According to the CPPE—Continued

Practice	Practice Code	No. of States Offering Particular HPP	Total CPPE Score (98 highest, -22 lowest)	CPPE Rank (1 = best, 166 = worst)	Address Emissions of GHGs (CPPE)
Range Planting	550	3	80	5	3
Conservation Cover	327	9	79	6	4
Prescribed Grazing	528	12	78	7	2
Silvopasture	381	2	77	8	2
Riparian Herbaceous Cover	390	13	75	9	2
Access Control	472	4	72	10	1
Filter Strip	393	14	62	12	1
Critical Area Planting	342	7	62	13	1
Cover Crop	340	19	61	14	3
Forest Stand Improvement	666	8	58	16	3
Residue and Tillage Management, No-Till	329	19	57	17	4
Nutrient Management	590	16	57	18	4
Conservation Crop Rotation	328	10	54	20	1
Residue and Tillage Management, Reduced-Till	345	9	46	22	3
Irrigation Water Management	449	8	46	23	1
Field Border	386	12	46	24	1
Pest Management Conservation System	595	5	45	25	0

Table 4. EQIP Conservation Incentive Contracts List of Eligible Practices

FY 2022 EQIP Practice	Practice Code	EQIP CIC Practice	Total CPPE Score	CPPE Rank (1-166)	Emissions of Greenhouse Gases—GHGs
Amending Soil Properties with Gypsum Products	333	Yes	9	141	0
Amendments for Treatment of Agricultural Waste	591	Yes	42	31	1
Anionic Polyacrylamide (PAM) Erosion Control	450	Yes	22	82	0
Bivalve Aquaculture Gear and Biofouling Control	400	Yes	7	146	0
Carbon Sequestration and Greenhouse Gas Mitigation Assessment	218	Yes (New)			
Conservation Crop Rotation	328	Yes	54	20	1
Cover Crop	340	Yes	61	14	3
Drainage Control Management	554	Yes	23	79	1
Dust Control on Unpaved Roads and Surfaces	373	Yes	4	151	0
Early Successional Habitat Development Mgt.	647	Yes	16	101	0
Emergency Animal Mortality Management	368	Yes	10	130	1
Feed Management	592	Yes	30	47	4
Field Operations Emissions Reduction	376	Yes	16	100	1
Fishpond Management	399	Yes	19	91	1
Forage Harvest Management	511	Yes	23	78	0
Grazing Land Mechanical Treatment	548	Yes	24	71	2
Irrigation Water Management	449	Yes	46	23	1
Mulching	484	Yes	28	55	0
Nutrient Management	590	Yes	57	18	4
On-Farm Recharge	817	Yes (New)			
Pest Management Conservation System (IPM)	595	Yes	45	25	0
Prescribed Burning	338	Yes	38	33	2
Prescribed Grazing	528	Yes	78	7	2
Residue and Tillage Management, No-Till	329	Yes	17	4	4
Residue and Tillage Management, Reduced-Till	345	Yes	46	22	3
Salinity and Sodic Soil Management	610	Yes	10	128	1
Site Assessment for Soil Testing for Contaminants Activity	207	Yes (New)			
Soil Carbon Amendment	808	Yes (New)			
Soil Health Testing	216	Yes (New)			
Surface Roughening	609	Yes	-3	164	-1
Upland Wildlife Habitat Management	645	Yes	39	30	2
Waste Recycling	633	Yes	23	73	1
Wetland Wildlife Habitat Management	644	Yes	25	61	1

Table 5. EQIP CIC Practices Ranked Lowest to Highest According to the CPPE

FY 2022 EQIP Practice	Practice Code	EQIP CIC Practice	Total CPPE Score	CPPE Rank (1-166)	Emissions of Greenhouse Gases—GHGs
Surface Roughening	609	Yes	-3	164	-1
Dust Control on Unpaved Roads and Surfaces	373	Yes	4	151	0
Bivalve Aquaculture Gear and Biofouling Control	400	Yes	7	146	0
Amending Soil Properties with Gypsum Products	333	Yes	9	141	0
Emergency Animal Mortality Management	368	Yes	10	130	1
Salinity and Sodic Soil Management	610	Yes	10	128	1
Early Successional Habitat Development/Mgt.	647	Yes	16	101	0
Field Operations Emissions Reduction	376	Yes	16	100	1

**Table 5. EQIP CIC Practices Ranked Lowest to Highest According to the CPPE—
Continued**

FY 2022 EQIP Practice	Practice Code	EQIP CIC Practice	Total CPPE Score	CPPE Rank (1–166)	Emissions of Greenhouse Gases—GHGs
Fishpond Management	399	Yes	19	91	1
Anionic Polyacrylamide (PAM) Erosion Control	450	Yes	22	82	0
Drainage Water Management	554	Yes	23	79	1
Forage Harvest Management	511	Yes	23	78	0
Waste Recycling	633	Yes	23	73	1
Grazing Land Mechanical Treatment	548	Yes	24	71	2
Wetland Wildlife Habitat Management	644	Yes	25	61	1
Mulching	484	Yes	28	55	0
Feed Management	592	Yes	30	47	4
Amendments for Treatment of Agricultural Waste	591	Yes	33	42	1
Prescribed Burning	338	Yes	38	33	2
Upland Wildlife Habitat Management	645	Yes	39	30	2
Pest Management Conservation System (IPM)	686	Yes	45	25	0
Irrigation Water Management	449	Yes	46	23	1
Residue and Tillage Management, Reduced-Till	345	Yes	46	22	3
Conservation Crop Rotation	328	Yes	54	20	1
Nutrient Management	590	Yes	57	18	4
Residue and Tillage Management, No-Till	329	Yes	57	17	4
Cover Crop	340	Yes	61	14	3
Prescribed Grazing	528	Yes	78	7	2
Carbon Sequestration and Greenhouse Gas Mitigation Assessment	218	Yes (New)			
On-Farm Recharge	817	Yes (New)			
Site Assessment for Soil Testing for Contaminants Activity	207	Yes (New)			
Soil Carbon Amendment	808	Yes (New)			
Soil Health Testing	216	Yes (New)			

**Table 6. EQIP CIC Practices in Order of Most Effective to Least Effective for
Addressing GHG Emissions in CPPE**

FY 2022 EQIP Practice	Practice Code	EQIP CIC Practice	Total CPPE Score	CPPE Rank (1–166)	Emissions of Greenhouse Gases—GHGs
Feed Management	592	Yes	30	47	4
Nutrient Management	590	Yes	57	18	4
Residue and Tillage Management, No-Till	329	Yes	57	17	4
Residue and Tillage Management, Reduced-Till	345	Yes	46	22	3
Cover Crop	340	Yes	61	14	3
Grazing Land Mechanical Treatment	548	Yes	24	71	2
Prescribed Burning	338	Yes	38	33	2
Upland Wildlife Habitat Management	645	Yes	39	30	2
Prescribed Grazing	528	Yes	78	7	2
Emergency Animal Mortality Management	368	Yes	10	130	1
Salinity and Sodic Soil Management	610	Yes	10	128	1
Field Operations Emissions Reduction	376	Yes	16	100	1
Fishpond Management	399	Yes	19	91	1
Drainage Water Management	554	Yes	23	79	1
Waste Recycling	633	Yes	23	73	1
Wetland Wildlife Habitat Management	644	Yes	25	61	1
Amendments for Treatment of Agricultural Waste	591	Yes	33	42	1
Irrigation Water Management	449	Yes	46	23	1
Conservation Crop Rotation	328	Yes	54	20	1
Dust Control on Unpaved Roads and Surfaces	373	Yes	4	151	0
Bivalve Aquaculture Gear and Biofouling Control	400	Yes	7	146	0
Amending Soil Properties with Gypsum Products	333	Yes	9	141	0
Early Successional Habitat Development/Mgt.	647	Yes	16	101	0
Anionic Polyacrylamide (PAM) Erosion Control	450	Yes	22	82	0
Forage Harvest Management	511	Yes	23	78	0
Mulching	484	Yes	28	55	0
Pest Management Conservation System (IPM)	595	Yes	45	25	0
Surface Roughening	609	Yes	-3	164	-1
Carbon Sequestration and Greenhouse Gas Mitigation Assessment	218	Yes (New)			
On-Farm Recharge	817	Yes (New)			
Site Assessment for Soil Testing for Contaminants Activity	207	Yes (New)			
Soil Carbon Amendment	808	Yes (New)			
Soil Health Testing	216	Yes (New)			

Table 7. EQIP Climate-Smart Agriculture and Forestry Practices in Order of Most Effective to Least Effective for Addressing GHG Emissions According to the CPPE

FY 2022 EQIP Practice	Practice Code	USDA Climate-Smart Ag & Forestry Practice	Total CPPE Score	CPPE Rank (1-166)	Emissions of Greenhouse Gases—GHGs
Anaerobic Digester	366	Yes	13	118	4
Conservation Cover	327	Yes	79	6	4
Nutrient Management	590	Yes	57	18	4
Residue and Tillage Management, No-Till	329	Yes	57	17	4
Tree/Shrub Establishment	612	Yes	97	2	4
Windbreak/Shelterbelt Establishment and Renovation	380	Yes	87	4	4
Cover Crop	340	Yes	61	14	3
Range Planning	550	Yes	80	5	3
Residue and Tillage Management, Reduced-Till	345	Yes	46	22	3
Riparian Forest Buffer	391	Yes	98	1	3
Alley Cropping	311	Yes	94	3	2
Herbaceous Wind Barriers	603	Yes	29	52	2
Prescribed Grazing	528	Yes	78	7	2
Riparian Herbaceous Cover	390	Yes	75	9	2
Silvopasture	381	Yes	77	8	2
Upland Wildlife Habitat Management	645	Yes	39	30	2
Conservation Crop Rotation	328	Yes	54	20	1
Contour Buffer Strips	332	Yes	20	86	1
Field Border	386	Yes	46	24	1
Filter Strip	393	Yes	62	12	1
Grassed Waterway	412	Yes	44	26	1
Hedgerow Planting	422	Yes	31	45	1
Irrigation Water Management	449	Yes	46	23	1
Land Reclamation, Abandoned Mined Land	543	Yes	54	19	1
Land Reclamation, Currently Mined Land	544	Yes	53	21	1
Multi-Story Cropping	379	Yes	64	11	1
Waste Separation Facility (no)	632	Yes	28	54	1
Land Reclamation, Landslide Treatment	453	Yes	36	35	0
Mulching	484	Yes	28	55	0
Stripcropping	585	Yes	25	62	0

Table 8. EQIP Practices with Negative Scores for Addressing GHG Emissions According to the CPPE

FY 2022 EQIP Practice	Practice Code	USDA Climate-Smart Ag & Forestry Practice	EQIP CIC Code	High Priority Practices (Top 10)	EWG-CSAF Proposed List	Total CPPE Score	CPPE Rank (1-166)	Emissions of Greenhouse Gases—GHGs
Waste Treatment Lagoon	359					19	87	-3
land Clearing	460					-21	166	-1
Surface Rougening	609		Yes			-3	164	-1
Denitrifying Bioreactor	605			Yes		2	157	-1
Deep-Tillage	324					8	143	-1
Recreation Land Improvement Protection	566					9	136	-1
Short-Term Storage of Animal Waste and Byproducts	318				Yes	12	119	-1
Waste Storage Facility	313				Yes	14	107	-1
Precision Land Forming and Smoothing	462					29	51	-1

Table 9. 10 Overall Lowest Ranked EQIP Practices According to the CPPE

FY 2022 EQIP Practice	Practice Code	USDA Climate-Smart Ag & Forestry Practice	EQIP CIC Code	High Priority Practices (Top 10)	EWG-CSAF Proposed List	Total CPPE Score	CPPE Rank (1-166)	Emissions of Greenhouse Gases—GHGs
Land Clearing	460					-21	166	-1
Fuel Break	383					-3	165	1
Surface Rougening	609		Yes			-3	164	-1
High Tunnel System	325					-2	163	0
Aquaculture Ponds	397					-1	162	0
Vertical Drain	630					-1	161	0
Groundwater Testing	355			Yes		0	160	0
Irrigation Canal or Lateral	320					0	159	0
Monitoring Well	353					0	158	0

SUBMITTED QUESTIONS

Questions Submitted by Hon. Chellie Pingree, a Representative in Congress from Maine

Response from Terry Cosby, Chief, Natural Resources Conservation Service, U.S. Department of Agriculture

Question 1. Following up on our discussion at the hearing, can you provide an update on the interim soil carbon amendment practice (808)? Where has it been authorized for use to date? Where has it been implemented so far?

Answer. NRCS is in the process of revising the Soil Carbon Amendment Conservation Practice Standard for publication in the National Handbook of Conservation Practices. The practice has been an interim practice under code 808 since FY20. When it becomes a national practice standard, it will be given a new practice code number. A final national practice standard is expected to be available to all states in FY23.

All states currently have the option to make available the interim practice, and 22 states have adopted the interim practice (808) in FY22. From FY20–22 the practice has been installed on 2,150 acres primarily in CA and UT. For FY22–25 the interim is planned on 34,000 acres across AR, CA, CO, CT, DE, ID, IN, MA, MT, NE, NH, NJ, NY, OR, PIA, UT, WY, and VT.

Question 2. There has been a lot of discussion about the need for additional technical assistance to help farmers adopt climate-smart practices. One specific area where I've heard a need is additional technical assistance and support for organic production systems. What can NRCS do to expand technical assistance for organic operations and farms transitioning to organic production? How can NRCS increase organic literacy for NRCS staff on the ground?

Answer. Conservation financial and technical assistance plays a critical role in supporting certified organic producers and producers transitioning to organic production.

Organic Technical Assistance: NRCS provides technical assistance (TA) through the Conservation Technical Assistance (CTA) program prior to providing financial assistance funding (FA) for conservation program funding. NRCS follows a nine-step conservation planning process that identifies the producer's conservation objectives and assesses and analyzes the natural resources issues on the land related to soil, water, animals, plants, air, energy, and human interaction while considering the resources the producer has available. The plan offers alternatives, documents decisions, records progress and tracks successful completion of conservation practices and systems, and provides guidance and direction for continued maintenance once established. NRCS is continuing to explore and expand innovative opportunities to provide technical assistance to farmers transitioning to organic.

EQIP and CSP Organic Initiative: Producers who are exempt, in transition, or organic may apply for funds through the Environmental Quality Incentives Program (EQIP) National Organic Initiative (NOI) and compete in separate NOI funding pools. Exempt, in-transition, or organic producers may also apply for assistance through any of the EQIP funding pools that they are eligible for and are not limited to EQIP NOI. The benefit of other EQIP funding pools is the increased payment limitation of \$450K *versus* the \$140K for the NOI.

The Conservation Stewardship Program (CSP) has specific statutory language requiring NRCS to provide funding to states to support organic production and transition to organic production based on the number of certified and transitioning organic operations, and the number of acres of certified and transitioning organic production, within a state. In FY 2022, NRCS set aside \$13.7M for CSP assistance for organic production and transition.

Training: NRCS developed a new training course "Working Effectively with Organic Producers" and had a very effective virtual rollout in FY 2021. Delivered 16 sessions to 650 participants. For organic producers, NRCS has an organic team to provides direction, training and tools for states to help with outreach and delivery at the local level. NRCS also has a team of organic champions available to help NRCS staff help producers who are interested in transitioning, or are in transition, or are already organic, to learn about NRCS programs and the types of assistance that are available.

There are several actions that NRCS has taken and will continue to do to increase organic literacy for our field staff, including:

- Provide leadership communications on the importance of assisting organic producers

- Encourage staff to complete the new Working Effectively with Organic Producers course
- Set performance goals for assisting organic/transitioning producers
- Reward employees for outstanding delivery of services
- Encourage attendance at organic agricultural events
- Encourage mentorship relationships with organic farmers
- Encourage establishing working relationships with organic certifiers
- Require each State Organic Champion to be an official co-lateral duty
- Provide more permanent staff for direct support to organic producers

In addition, other USDA agencies, such as the Agricultural Marketing Service (AMS), are also working to develop new opportunities to better support U.S. producers interested in transitioning to organic production. As you have heard firsthand from producers in your state, our data from the National Agricultural Statistics Service backs it up that the number of non-certified organic farms actively transitioning to organic production has dropped by nearly 71 percent since 2008.

**A 2022 REVIEW OF THE FARM BILL
(COMMODITY GROUP PERSPECTIVES ON TITLE I)**

TUESDAY, MARCH 1, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, Costa, Adams, Spanberger, Hayes, Delgado, Brown, Rush, Pingree, Sablan, Kuster, Bustos, O'Halleran, Carbajal, Khanna, Lawson, Correa, Craig, Harder, Axne, Schrier, Panetta, Bishop, Thompson, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Davis, Allen, Rouzer, Kelly, Bacon, Johnson, Baird, Jacobs, Balderson, Cloud, Mann, Feenstra, Miller, Moore, Cammack, Fischbach, and Letlow.

Staff present: Lyron Blum-Evitts, Carlton Bridgeforth, Prescott Martin III, Ashley Smith, Joshua Tonsager, Patricia Straughn, Trevor White, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. The hearing will come to order. Ladies and gentlemen, I would like to start our hearing with a prayer for one of our distinguished Members who passed away, Jim Hagedorn. Won't you join me in standing?

Dear Heavenly Father, we come before your throne of grace to say thank you. We thank you for sending our friend, Jim Hagedorn of Minnesota, our way, and Dear Heavenly Father, we respectfully ask and humbly ask that you put your arms and your hands of your loving comfort around his family, his wife, Jennifer, and also, Dear God, around the wonderful people from Minnesota who sent Jim to Congress. We are so grateful. Jim Hagedorn fought a good fight. He finished his course, and Dear God, Jim Hagedorn kept the faith. And I know now that you have put that crown of righteousness on his head. Dear Heavenly Father, Jim Hagedorn played a pivotal role and did great work for agriculture, which he loved dearly. And so, Dear Heavenly Father, we thank you for sending Jim Hagedorn our way. Amen.

Okay. Thank you all, and I welcome you for joining us today. Today's hearing is entitled, *A 2022 Review of the Farm Bill: Commodity Group Perspectives on Title I*. After brief opening remarks,

Members will receive testimony from our witnesses today, and then the hearing will be open to questions. I will start with my opening statement.

I want to, again, say good morning to everyone, and thank you for joining us. We have some very distinguished panelists who will give us great perspectives from our commodity groups, on the commodity title programs in our 2018 Farm Bill. And I am pleased to have this distinguished panel of nine representatives from a variety of national commodity associations. In particular, I am also proud to say that we have two farmers from my home State of Georgia testifying this morning who are representing our important cotton and peanut industries. Georgia is number one in the country for peanut production and number two for cotton production.

I know several of the organizations our witnesses represent will be convening at Commodity Classic next week, which is an important venue for our policy discussions. And I know that you all will be working hard throughout this year, developing recommendations for the next farm bill.

Today's hearing is an important opportunity for us to, first of all, reflect on our commodity programs in our 2018 Farm Bill and gather input from key stakeholders on what is working and what is not working for our wonderful farmers across our nation. And to all of our witnesses, I appreciate you taking the time to join us today for what I am sure will be a very informative hearing. Thank you all again for coming.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning and thank you to everyone for joining us today as we gather perspectives from commodity groups on the Commodity Title programs in the 2018 Farm Bill.

I am pleased to have this distinguished panel of nine representatives from a variety of national commodity associations.

In particular, I am proud to say that we have two farmers from my home state of Georgia testifying this morning who are representing our important cotton and peanut industries. Georgia is number one in the country for peanut production and number two for cotton production.

I know several of the organizations our witnesses represent will be convening at Commodity Classic next week, which is an important venue for policy discussions. And I know that you all will be working hard throughout this year developing recommendations for the next farm bill.

Today's hearing is an important opportunity for us to reflect on commodity programs in the 2018 Farm Bill and gather input from key stakeholders on what is working and is not working for farmers across the country.

To all of our witnesses, I appreciate you taking the time to join us today for what I am sure will be an informative hearing. Thank you all again.

With that, I now yield to the distinguished Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for any opening remarks he would like to give.

The CHAIRMAN. And with that, I now would like to welcome our distinguished Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for his opening remarks.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, Mr. Chairman, thank you very much.

Before we begin, I would like to take a brief moment to echo Chairman Scott and send my thoughts and prayers to the family and staff of our late friend and colleague, Representative Jim Hagedorn. Jim was a tireless advocate on behalf of our nation's farmers, ranchers, producers, and foresters, and his love for this Committee and rural America will not soon be forgotten. I consider myself blessed to call Jim a dear friend, and I am honored to have known him and worked alongside him. I send my heartfelt condolences and prayers to his entire family and staff during this time of significant loss. Our hearts are with you.

Chairman Scott, thank you for convening this hearing today, and giving the Members of this Committee the opportunity to hear directly from these representatives of the commodity organizations regarding Title I of the farm bill. We have 19 months before the 2018 Farm Bill expires, but before we can begin thinking about the 2023 reauthorization, we must first have a thorough understanding of how current policy is performing, and we kick that audit process off here today.

I want to thank the witnesses who agreed to participate in this hearing, as well as the organizations they represent. Unfortunately, in the past, we have seen what can happen to the farm bill when there is divisiveness and a lack of consensus among key stakeholders, such as during the process leading up to the 2014 Farm Bill, which ultimately took over 3 years and a lot of ups and downs before it was enacted. Compare that to the 2018 Farm Bill, which may have been tumultuous at times, but it marked the first time in almost 30 years that a farm bill was introduced in both chambers and enacted into law within 1 calendar year. Plus, the conference report was passed by a record margin in both the House and the Senate.

From my perspective, the key difference that led to the success in the 2018 Farm Bill was that the commodity organizations were all rowing in the same direction. During the development of the 2023 Farm Bill, there may be some differences of opinion along the way, but I am hopeful and I challenge all of our key stakeholders to make sure that they are unified as we fight back against the critics of farm policy. Our farmers are the lifeblood of the rural economy, and having a reliable domestic source for food is a matter of national security. Yet those who are not involved in agriculture likely don't comprehend the enormous risks that our farmers and ranchers take on year in and year out to ensure that there is food on the shelves. The disruptions from the COVID-19 pandemic opened many Americans' eyes to the importance of reliable food production, and while for the average consumer things may have somewhat returned to normal, for our farmers, it is anything but. They are facing unprecedented disruptions in the supply chain for critical inputs, skyrocketing energy costs, and difficulty transporting their commodities. Though there is no silver bullet, the safety net is intended to help absorb some of the risks our farmers face.

I look forward to an honest conversation about how Title I is performing in that regard. I hope the Members of this Committee walk away from this hearing with a thorough understanding of what is working and what needs improving. The path to success in any

farm bill reauthorization begins on the front end with hearings like this. The primary responsibility of the organizations represented here is to provide the key input Congress needs to get the policy right. Each farm bill is different and each one comes with its own unique challenges. It is critical at this stage of the game for stakeholders to give us an honest assessment of where we stand, and moving forward to focus on developing the safety net our producers need, rather than trying to dictate the process.

So, I would like to, again, thank our witnesses here today, and I look forward to working with each of you and the organizations you represent. Thank you, Mr. Chairman, and I yield back.

The CHAIRMAN. Thank you, Ranking Member.

And now, I am very pleased to recognize the Chair of our General Farm Commodities and Risk Management Subcommittee, the gentlewoman from Illinois, Mrs. Bustos, for any opening remarks she would like to make.

**OPENING STATEMENT OF HON. CHERI BUSTOS, A
REPRESENTATIVE IN CONGRESS FROM ILLINOIS**

Mrs. BUSTOS. All right. Thank you very much, Mr. Chairman, and I also want to thank the Ranking Member for allowing me to offer some very short opening remarks about this important hearing.

As the Chair of the Subcommittee with jurisdiction over Title I programs, I think this hearing is an important component for the work that our full Committee is undertaking so that we understand what is working and what is not working with our commodity programs so Congress is able to make informed decisions as we head into the next farm bill reauthorization process.

Last month, our Subcommittee had the opportunity to hear from, and then engage with, Under Secretary Robert Bonnie on the state of farm policy, and we were able to hear his perspectives on USDA's implementation of farm bill programs, and on other very important work that the Department has done so it can continue to support farmers over the past year and into the future. The input combined with the testimony that we will hear this morning from our national commodity associations really is key to our oversight work, and I am looking forward to the input from our witnesses this morning, and also having a continued dialogue with each of our witnesses as we move forward.

Thank you very much to our witnesses for your testimony today, and I look forward to your input about how our existing commodity programs are working.

Thank you, Mr. Chairman, and I will yield back.

The CHAIRMAN. Thank you, Chair Bustos.

And now, I am also pleased to recognize the Ranking Member of our General Farm Commodities and Risk Management Subcommittee, my friend from Georgia, Mr. Austin Scott, for any opening remarks he may have.

**OPENING STATEMENT OF HON. AUSTIN SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

Mr. AUSTIN SCOTT of Georgia. Thank you, Chairman Scott, and thank you to the witnesses that are here before us today. Before

I go into my opening statement, I want to point out that I dug deep into my closet to find the closest colors I had in support of the Ukraine today. I see Chair Bustos did as well, and certainly, our thoughts and prayers go out to President Zelenskyy and the Ukrainian people who are doing a tremendous job of fighting the Russians and the arcane person who is in charge of that country, Vladimir Putin. I think one of the things that the world is about to realize, unfortunately, is just how important the food supply is around the world. I think that over the next several weeks, we will probably see a tremendous number of human beings that will be starving because of the actions of one sick individual.

As Ranking Member of the General Farm Commodities and Risk Management Subcommittee, I am particularly looking forward to taking a deep dive into the policies within Title I of the farm bill. I am looking forward to working with Chair Bustos and the full Committee leadership for the remainder of this Congress. I am hopeful that the work we do this year will set us up for success in delivering an on-time reauthorization in 2023. Many of us are fortunate enough to represent rural districts. We get the opportunity to interact with farmers back home, and yet, even still the producers and the risks that they take each year are hard to fathom. It takes a special individual to be willing to borrow more money than the average American will borrow in their lifetime just to plant seed in the ground and hope to make a crop and pay it off. For them, farming isn't just an occupation. It is their heritage, their livelihood, and a way of life.

Title I is meant to provide a base level of assistance when times are tough and prices fall so that farmers can survive to the next year. Yet, as we look back over the past several years, I am concerned with how much we have had to rely on assistance outside of the farm bill to help our farmers. Natural disasters, retaliatory tariffs, and the coronavirus pandemic are a few of the things that come to mind. These events, we weren't able to see them coming, but I hope we can have a conversation here today, going forward, about what improvements we can make to the safety net to provide farmers more certainty in the face of these kinds of events.

If you dig into the *Census of Agriculture*, there is a statistic that underscores the importance of getting these policies right. There are only 239,000 operations in this country that generate over \$250,000 or more in sales. That is sales, Mr. Chairman, not income. In my district, it would probably take about 300 acres of cotton to hit that number. Of those 239,000 farm operations, just 12 percent produce about 90 percent of all of our food supply. I am going to say that again: 239,000 operations in this country, 12 percent of the farms generate 90 percent of the food supply for our country and what we export. Those are still by and large family farm operations that have had to expand to offset reducing margins. That underscores just how important a working farm safety net is. If things go south, some of those farm operations start to get out of the business of agriculture, we could see significant impacts on our food and fiber production.

Today's hearing is a vital examination of where we stand today, and the start of a conversation about where farm policy needs to be in the future. Mr. Chairman, before I thank you one last time

for this hearing, I want to also mention the impact of bad tax policy on our family farms. Eliminating stepped-up basis and increases in the estate tax will be devastating to America's farm families and America's food supply.

Mr. Chairman, thank you again. Thank you to the witnesses here today. I look forward to hearing from each of you and working with each of you in the groups, and I hope that you will all pray for President Zelenskyy, the Ukrainian people, and those who are out there fighting for freedom hour by hour.

The CHAIRMAN. Thank you, Ranking Member Scott.

And now, the chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony, and to ensure that we have ample time to make sure we answer all questions.

And now, it is my deep pleasure to introduce our panelists and witnesses for today, and to introduce our first witness, I would like to yield to our colleague from Arkansas, Mr. Crawford.

Mr. CRAWFORD. Thank you, Mr. Chairman. Full disclosure, our first witness is a constituent of mine who I have been friends with for some 20 years. Brad Doyle is a farmer from Poinsett County, Arkansas, and serves as President of the American Soybean Association. He has been a member of the ASA Board of Directors since 2017. In 2017, Brad received the Arkansas Farm Bureau's Stanley E. Reed leadership award. The Doyle family has been recognized as ASA conservation champions. They have implemented two tailwater recovery and canal systems on their own farm to conserve rain water, soil, and nutrients. I appreciate the great work they are doing and I am proud to represent them.

Brad, thank you for being here today, and I appreciate you and all that you do, and Mr. Chairman, thank you for the opportunity to introduce my constituent.

The CHAIRMAN. Thank you.

And our second witness today is Dr. Robert Johansson, the Director of Economics and Policy Analysis for the American Sugar Alliance. He was previously the Chief Economist at the U.S. Department of Agriculture.

Our next witness is Ms. Nicole Berg, a farmer from Paterson, Washington, who is here today testifying on behalf of the National Association of Wheat Growers.

Our fourth witness today is Mr. Chris Edgington, a farmer from Saint Ansgar, Iowa, who is here today testifying on behalf of our National Corn Growers Association.

And to introduce our fifth witness today, I would like to yield once again to my colleague from Georgia, Mr. Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Chairman Scott.

I would like to welcome our next witness, Ms. Jaclyn Dixon Ford, from Alapaha, Georgia. In addition to working her family farm, she manages Dixon Gin Company and is here today testifying on behalf of the National Cotton Council. She is a graduate of the University of Georgia, home of the national champion Georgia Bulldogs, and has been working in the cotton industry for over 25 years. She serves on the ABAC Foundation Board with my wife, Vivian, and Jaclyn, we are glad to have you here.

The CHAIRMAN. Thank you. Our sixth witness is Ms. Verity Ulibarri, a farmer from Melrose, New Mexico, who is testifying today on behalf of the National Sorghum Producers.

Our seventh witness today is Mr. Clark Coleman, a farmer from Bismarck, North Dakota, who is testifying today on behalf of the National Sunflower Association, the National Barley Growers Association, the U.S. Canola Association, and the USA Dry Pea and Lentil Council.

And to introduce our eighth witness today, I would like to yield once again to our colleague from Arkansas, Mr. Crawford.

VOICE. I hope you are doing well, and I will talk to you a little bit later—

The CHAIRMAN. Let me remind all Members, please make sure your microphones are muted when you are not recognized. Thank you.

Mr. Scott—I am sorry, Mr. Crawford.

Mr. CRAWFORD. Thank you, Mr. Chairman. I am doubly honored today to introduce another constituent, Jennifer James, who is a fourth-generation rice farmer from Newport, Arkansas. She is part owner of H and J Land Company, a diversified family farming operation, growing rice, corn, and soybeans. Jennifer and her husband, Greg, farm with Jennifer's father, Marvin Hare. The family takes great pride in their operations' commitment to providing over-winter habitat for water fowl and instituting practices that conserve natural resources. She serves on the USA Rice Federation and U.S. Rice Farmers Board of Directors. I appreciate the great work Jennifer and her family are doing, and I am proud to represent them. Jennifer, thank you for being here today.

The CHAIRMAN. Thank you, and I would like to introduce now our ninth and final witness today, and I would like to yield to our colleague from Georgia, Mr. Bishop.

Mr. BISHOP. Thank you very much, Mr. Chairman.

The CHAIRMAN. Mr. Bishop—

Mr. BISHOP. It is truly—can you not hear me?

The CHAIRMAN. We are having a little bit difficulty. You may want to get a little bit closer to the microphone, Mr. Bishop.

Mr. BISHOP. I apologize.

Again, is this better?

The CHAIRMAN. Yes, it is. You may continue.

Mr. BISHOP. Thank you very much, Mr. Chairman and Ranking Member Thompson, for having this very important hearing today. It is my pleasure and a distinct honor to introduce the witness from Georgia's second Congressional district, Meredith McNair Rogers. Ms. Rogers hails from Camilla, Georgia, in Mitchell County, which is one of the top ten agriculture producing counties in the State of Georgia. She comes from a long line of row crop and [inaudible] farmers, and she is the third generation. And her family is [inaudible]—

The CHAIRMAN. We are having some technical difficulties—

Mr. BISHOP.—[inaudible]. Meredith was the first [inaudible]—

The CHAIRMAN. Mr. Bishop, I hate to cut you there but you are having a little difficulty—

Mr. BISHOP.—leadership academy, which is a program for young leaders involved in the peanut industry, and she has a unique perspective as one of the [inaudible].

The CHAIRMAN. Thank you, Mr. Bishop.

Mr. BISHOP. Thank you.

The CHAIRMAN. And I thank Mr. Bishop for his comments, and apologize for the little difficulty we had technically on that.

I am so pleased to have such a very distinguished panel of witnesses before us today. Your commentary, your insight is very valuable to us to share with us what works, what doesn't work, so we can improve where we need to improve and make sure the American people have a farm bill that we all can be very proud of.

And so, now, witnesses, you will each have 5 minutes. The timer will be visible to you, and will count down to 0, at which point, your time has expired.

So, Mr. Doyle, let us begin with you when you are ready.

**STATEMENT OF S. BRAD DOYLE, PRESIDENT, AMERICAN
SOYBEAN ASSOCIATION, WEINER, AR**

Mr. DOYLE. Good morning, Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee. Thank you for the opportunity to provide testimony on Title I of the 2018 Farm Bill. My name is Brad Doyle. I am a soybean farmer from Arkansas, and I serve as the President of the American Soybean Association.

Soybean growers need a supportive farm safety net when markets fail or when significant economic disruptions occur. Based on farmer feedback we have received, it is clear that improvements are needed to make the Title I safety net effective for soybean farmers.

Since early 2022, ASA has held 12 virtual farm bill listening sessions, both by region and by topic, with interested soybean farmers across soy's 30 primary growing states. An in-depth farm bill survey was also administered to soybean growers in late 2021. Through these listening sessions and the survey, soybean farmers consistently share that the soybean reference price is insufficient. If there were ever a time that the farm safety net was designed for, it was during the China trade war in 2018 and 2019. China is a significant importer of soybeans, importing almost one in three rows of soybeans produced in the U.S. During the height of the China trade war in 2018, U.S. soy stopped flowing into the market during the peak export period that fall. Soybean prices fell about 20 percent. The soybean producers received no PLC payments, and little from ARC under the Title I safety net.

The reference price for determining Title I benefits was set at such a low level that PLC payments never were triggered. In fact, 2005 is the last time that PLC or CCP payment, the predecessor program, was triggered for soybeans. If soybeans, the second-largest crop planted by area in the U.S., did not get help from Title I during this critical situation, it is hard to imagine a scenario where the Title I safety net could provide meaningful help with the current reference price.

Through ASA's listening sessions and survey, soybean farmers also consistently shared the concern that soybean farmers have a

low level of base acres compared to planted acres. ARC and PLC payments are provided on base acres, not on planted acres. In 2021, soybeans were planted on over 87 million acres in the U.S. By comparison, soybean base total acres are 52½ million acres. So, 34½ million acres of soybean acres were not protected by the soybean provisions of ARC and PLC in 2021.

Farmers shared these scenarios throughout our listening sessions to describe these concerns: (1) a young, beginning farmer who is only ten percent base on his or her farm provided little access to the ARC and PLC farm safety net; (2) greater adoption of no-till conservation practices has enabled farmers to cultivate crops in new areas that have no base; (3) small farmers who have transitioned out of tobacco production and have no crop base; (4) farmers have exited the dairy business and have moved into production of other crops with no base acres; and (5), farmers have lost cropland to residential and industrial development, and sought other areas to cultivate.

When our survey respondents were provided options to improve the Title I farm safety net for soybeans, the leading two selections were to increase the soybean reference price for calculating ARC and PLC, and to provide an option to update base acres. Importantly, farmer feedback also suggests that a combination of remedies to address these deficiencies are needed. For example, if an option to update base acres is allowed, it may not be exercised if the reference price of soybeans remains where it is currently set.

In addition to these two specific areas of concern regarding the Title I farm safety net, my written statement provides highlights of a number of other interests.

Thank you again for this opportunity to share ASA's perspectives on Title I of the 2018 Farm Bill.

[The prepared statement of Mr. Doyle follows:]

PREPARED STATEMENT OF S. BRAD DOYLE, PRESIDENT, AMERICAN SOYBEAN ASSOCIATION, WEINER, AR

Good morning, Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee. Thank you for the opportunity to provide testimony on Title I of the 2018 Farm Bill.

I am a soybean farmer from Arkansas and serve as President of the American Soybean Association (ASA).

Founded in 1920, ASA represents more than 500,000 U.S. soybean farmers on domestic and international policy issues important to the soybean industry and has 26 affiliated state associations representing the 30 primary soybean-producing states.

Soybean Economic Impacts

The U.S. soybean industry has a positive impact on the U.S. economy.

In 2021, over 87 million acres were planted to soybeans in the United States with a record-high production total of 4.44 billion bushels according to USDA.

Soybean production alone accounts for close to 150,000 jobs (full-time soy equivalent), more than \$6 billion in wages and \$86.5 billion in revenues, according to a 2019 study by the United Soybean Board and National Oilseeds Processors Association. This does not include secondary soybean markets and supporting industries like biodiesel, grain elevators, feed mills, ports, rail, refining, barge and more, which brings soybean's national revenue impacts to a significant \$115.8 billion. New markets and new uses for soy continue to develop thanks to farmer investments in research and promotion by the soybean check-off and Federal investment in market development programs.

Soybeans have long been U.S. agriculture's top export crop. Foreign markets were destinations for more than 50% of U.S. soy production in the last marketing year.

Even with ongoing efforts to diversify and open new markets, our commercial export relationship with China is critically important, as it is the largest importer of soybeans in the world. Almost a third of all soybeans grown in the United States are destined for China under normal trade conditions.

In addition to a steady supply of production inputs and predictable regulatory environment, we rely on domestic and global markets for the success of soybean farmers.

When those markets fail or when significant economic disruptions occur, we rely on policymakers to ensure that a supportive farm safety net is in place.

Farmer Feedback—Gathering Process

Each year, ASA sets the annual policy priorities of the organization through a thorough resolutions review and adoption process. This process is currently underway and will culminate in a session of voting delegates at our annual meeting during the Commodity Classic farm trade show next week. Feedback regarding Title I has been received through this process.

In addition, ASA has recently taken greater steps to gather farmer feedback in preparation for development of the next farm bill.

Since early 2022, ASA has held 12 virtual farm bill listening sessions—both by region and by topic—with interested soybean farmers and state soy affiliates across soy's 30-state growing region. An in-depth farm bill survey was administered to soybean growers in late 2021. And, ASA has a farm bill-specific email address set up for those interested in sharing additional written feedback.

Farm bill feedback gathered from these steps will be developed into a set of farm bill principles and shared this spring with the Committee.

Title I Feedback From Farmers: Improvements Are Needed

While crop insurance is not a part of Title I, ASA must share for the record the high importance of crop insurance to soybean farmers. Soybean farmers consistently communicate that this is the most effective component of the farm safety net when viewed more broadly. This risk management tool allows farmers to elect coverage annually based on their own risk tolerance and responds accordingly when losses are triggered. Crop insurance must remain affordable for producers.

While crop insurance provides a safety net for risk within a growing season, it does not protect against longer-term structural risks. Title I is intended to do this, but the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs, specifically, need improvements to provide the intended protection. An effective soybean safety net does not exist today.

As noted earlier, China is a significant importer of soybeans, importing almost one in three rows of soybeans produced in the United States. During the height of the China trade war in 2018, U.S. soy stopped flowing to the market during the peak export period that fall. Soybean prices fell by about 20%, but the producers of the crop received no PLC payments and little from ARC under the Title I safety net. USDA stepped in with *ad hoc*, temporary support to farmers through the Market Facilitation Program (MFP).

The example above provides context to what we are hearing from farmers. They have consistently shared two deficiencies regarding the Title I farm safety net programs of ARC and PLC:

- (1) Soybeans have an insufficient reference price, on which ARC and PLC benefits are calculated.
- (2) Soybeans have a low level of base acres, the historical acreage on which ARC and PLC benefits are provided, relative to planted acres.

When survey respondents were provided options to improve the Title I farm safety net for soybeans, the leading two selections were related to those concerns; specifically, (1) increase the soybean reference price for calculating ARC and PLC, and (2) provide the option to update base acres.

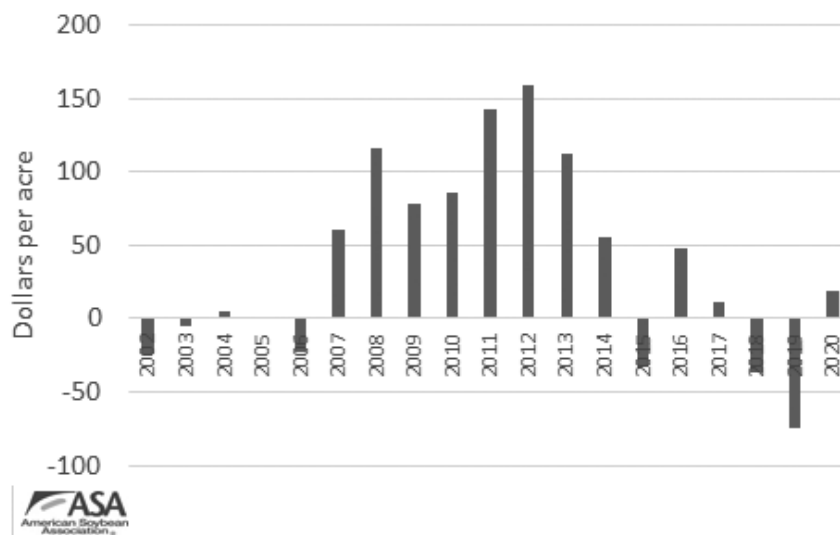
Importantly, farmer feedback also suggests that a combination of remedies to address these deficiencies is needed. For example, if an option to update base acres is allowed, it may not be exercised if the reference price for soybeans remains where it is currently set.

Soybean Reference Price: Increase Is Needed

Farm safety nets are not created for the good times, but instead the bad times. Currently, we are experiencing strong soybean market prices, but agriculture is cyclical. An effective safety net is needed for the times when prices decline. During the trade war, soybean farmers experienced negative margins for their crop. USDA's

Economic Research Service estimated it cost soybean farmers \$37 more per acre in 2018 to produce than was received from the sale of the crop and \$74 more in 2019.

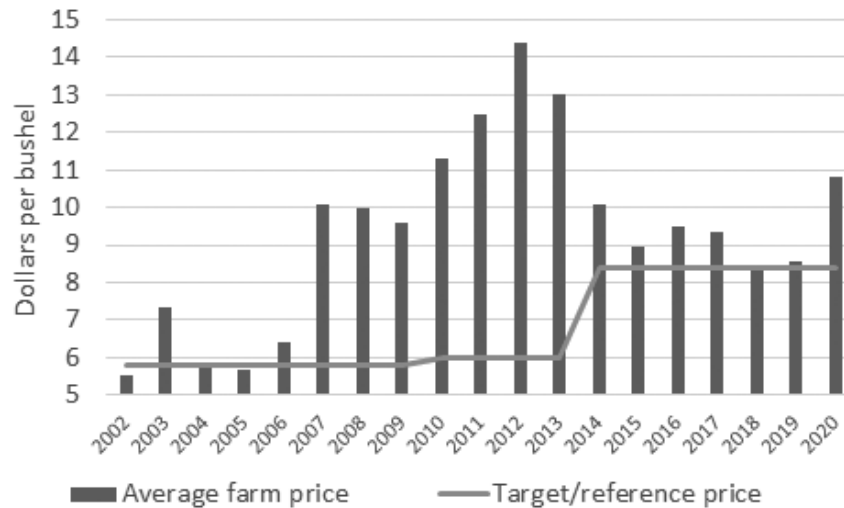
Soybean value of production less total costs



Source: USDA ERS.

If there were ever a time that the farm safety net was designed for, it was the trade war in 2018 and 2019. Factors well outside farmers' control structurally shifted, collapsing much of the demand for U.S. soybeans. Despite a large drop in the price producers were receiving which resulted in negative margins, the reference price for determining Title I benefits was set at such a low point that PLC payments never triggered. In fact, 2005 is the last time a PLC or CCP payment—the predecessor program—was triggered for soybeans.

Soybean prices



Sources: USDA NASS and FAPRI-MU.

Support prices were increased starting with the 2014 Farm Bill, but this price increase did not fully reflect the increased operating costs. While prices during the trade war remained above those from the early 2000s, a higher price is necessary to offset the higher cost of inputs. According to data from the Food and Agricultural Policy Research Institute at the University of Missouri (FAPRI-MU), operating costs have approximately doubled during this time. As a result, farmers experienced significant losses and received few ARC payments and no PLC payments. If soybeans, the second-largest crop by area in the U.S., did not receive help through Title I during this critical situation, it is hard to imagine a scenario where the Title I safety net could provide meaningful help with the current reference price.

Soybean Base Acres: Option to Update Base Acres Is Needed

The data clearly demonstrates the disparity in soybean planted acres compared to base acres, the historical acreage on which ARC and PLC benefits are provided.

In 2021, soybeans were planted on over 87 million acres in the United States. By comparison, soybean base totals 52.5 million acres. 34.5 million acres of planted soybean acres were not protected by the soybean provisions of ARC and PLC in 2021. While some of these 34.5 million soybean acres may have been corn or wheat base, for example, farmers' concerns are very real and important to share with you. These other crops may not correlate well with the losses being experienced on the farm.

ASA's farm bill survey results showed that 84% of respondents would like the option to update base acres, and less than 5% oppose the option. Commentary shared throughout our listening sessions includes these scenarios:

- A young, beginning farmer who has only 10% base acres on his or her farm, providing little access to the ARC/PLC farm safety net.
- Greater adoption of no-till conservation practices has enabled farmers to cultivate row crops in new areas that have no base.
- Small farmers have transitioned out of tobacco production and have no crop base.
- Farmers have exited the dairy business and moved into production of other crops.
- Farmers have lost cropland to residential or industrial development and sought other areas to cultivate.

To be clear, ASA supports maintaining planting flexibility and the approach of decoupling acreage to ensure compliance with trade commitments. Providing farmers an option to update base acres in a trade-compliant manner can be achieved.

Additional Title I Farmer Feedback

Although our testimony has focused on two specific areas of concern regarding the Title I farm safety net, we share with the Committee additional feedback on needs:

- Clear direction that if a standing disaster assistance program is created, the financial protection provided by Title I programs and crop insurance should not be reduced to fund the disaster program.
- Support for review of Farm Service Agency staffing and information technology (IT) capabilities in advance of eventual farm bill implementation. Of note, this applies to USDA more broadly as well to ensure implementation readiness.
- Support for modernizing IT systems to better allow farmers to share data and access programs.
- Support for the option to update program yields.
- Support for allowing ARC payments to trigger more easily.
- Support for the ARC cap on payments from the current 10% of the benchmark.
- Support for reviewing marketing loan rates.
- Support for increasing payment limits.
- Opposition to eligibility restrictions based on farmer size.

Conclusion

Thank you again for this opportunity to share the American Soybean Association, and in turn our farmers', views on Title I farm programs.

The soybean industry stands ready to work with the Committee in crafting a farm safety net that is effective for soybean farmers.

The CHAIRMAN. Thank you, Mr. Doyle.

And now, Dr. Johansson, please begin when you are ready.

STATEMENT OF ROBERT JOHANSSON, PH.D., DIRECTOR OF ECONOMICS AND POLICY ANALYSIS, AMERICAN SUGAR ALLIANCE, ALEXANDRIA, VA

Dr. JOHANSSON. Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. Thank you for this opportunity to testify before you today concerning the commodity title of the 2018 Farm Bill. My name is Robert Johansson. I am the Director of Economics and Policy Analysis at the American Sugar Alliance, the national coalition of sugarbeet and sugarcane growers, processors, and refiners.

U.S. sugar industry generates more than 140,000 jobs across 21 states, and contributes \$20 billion annually to the U.S. economy. American consumers benefit from a safe, high-quality, reliable, sustainably produced, and affordable source of sugar, an essential ingredient in the nation's food supply. Our product is stored and distributed from multiple facilities strategically located throughout the nation, ready for delivery when and where needed, according to the specifications required by our customers. Unlike some other food items, there were no bare spots on grocery store shelves throughout the pandemic. That success is attributable to U.S. sugar policy.

I will make four main points today. First, efficient U.S. sugar producers are threatened by less efficient foreign, subsidized, and dumped sugar that usually sells well below the exporter's cost of production. There are no signs of that changing in the foreseeable future. We must not become overly dependent on foreign suppliers for essential goods. That is why an effective sugar policy that main-

tains a strong domestic industry is essential to the food security of our nation.

Second, U.S. sugar policy comes at no cost to the U.S. Treasury. U.S. sugar policy has operated at zero cost to taxpayers 17 of the past 18 years, and is expected to do so again this year. The USDA projects zero costs over the next 10 years as well. The one time it did not operate at zero cost was due to Mexico's dumping of sugar onto the U.S. market at below Mexico's production cost, which the International Trade Commission unanimously held violated U.S. trade law.

However, the loan rate for raw sugarcane and refined beet sugar has not kept up with inflation nor the rising costs of production. It no longer provides a realistic safety net for our producers. Since the early 1980s, we have closed 68 processing facilities, and most outside investors have exited the remainder of the industry due to the high risk and low returns. It was our family farmers who stepped up to rescue the industry from further closures of their factories, mills, and refineries.

Now, many of those are struggling. Operating margins are being squeezed each year due to rising labor, fuel, seed, fertilizer, equipment, and interest rate costs. They hit our producers in the field as well as in the factories they own.

We would support examining how the farm bill safety net could be updated in the next farm bill for all Title I commodities to better match actual operating costs for producers.

Third, sugarcane and sugarbeets, like most crops, are grown in areas that experience weather disruptions. Crops are resilient, yet risk protection is needed. Sugarcane and sugarbeet farmers do have some insurance products available to them, but those crop insurance tools are not as well developed nor affordable as for some other commodities. Sugarbeet farmers have participated in WHIP+ previously, and cane farmers are considering how their losses in 2021 might be eligible for the most recent WHIP+ program. Note that WHIP+ is not currently authorized for recent 2022 disasters, such as the January freeze in Florida.

For those reasons, and because this Committee has signaled an interest in developing additional risk management programs in Title I to complement crop insurance, we are certainly receptive to new efforts to provide standing disaster coverage in ways that do not undermine crop insurance, and possibly even encourage greater participation and coverage levels.

And last, the current Title I sugar policy can provide an adequate economic safety net for American sugarcane and sugarbeet farmers so long as there remains in place effective responses to foreign sugar-producing countries' subsidizing and dumping. Without those responses, we would effectively outsource our sugar supply to heavily subsidized and unreliable foreign sugar suppliers whose environmental and labor standards simply do not measure up to our own. That would be the opposite of strengthening supply chains, and contrary to providing a safety net to American producers.

We encourage and welcome the Members and staff of the Committee to visit our farms and factories. We look forward to working with you as this Committee continues to hear from producers as you weigh options for improving the farm bill.

Thank you for your consideration, and for your support to the American sugarcane and sugarbeet family farmers. I look forward to any questions you might have.

[The prepared statement of Dr. Johansson follows:]

PREPARED STATEMENT OF ROBERT JOHANSSON, PH.D., DIRECTOR OF ECONOMICS AND POLICY ANALYSIS, AMERICAN SUGAR ALLIANCE, ALEXANDRIA, VA

Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. Thank you for this opportunity to testify before you today concerning the Commodity Title of the 2018 Farm Bill.

My name is Rob Johansson, and I am the Director of Economics and Policy Analysis at the American Sugar Alliance (ASA), the national coalition of sugarbeet and sugarcane growers, processors, and refiners.

The U.S. sugar industry generates more than 140,000 jobs in 21 states and \$20 billion in annual economic activity (see *figure 1*. Map of the U.S. sugar industry).¹

American consumers benefit from a safe, high-quality, reliable, sustainably produced,² and affordable source of an essential ingredient in the nation's food supply. Sugar is used as a natural sweetener, preservative, and bulking agent in 70 percent of U.S. food manufacturing. Our farmers, millers, processors, and refiners have built a strong and resilient supply chain for American sugar.³ Proudly, our product is stored and distributed from 90 strategically located facilities throughout the nation ready for delivery when and where needed according to the specifications required by our customers. Unlike some other food items, there were no bare spots on grocery store sugar shelves throughout the pandemic. That success is attributable to U.S. sugar policy.

Our industry proudly meets some of the highest labor and environmental standards in the world, unlike many other large sugar producing countries. Moreover, using best practices and continuous improvement, our sector has made huge strides in sustainability, mainly through productivity gains in soil fertility, mechanization, improved seed genetics, and refining efficiencies. In fact, over the past 20 years, we have increased production by 16 percent on 11 percent fewer acres, through improved sugarcane and sugarbeet yields.

Many of the jobs and businesses generated and supported by the U.S. sugar industry are in highly vulnerable and economically distressed rural areas.

This hearing is timely and important for sugarcane and sugarbeet farmers because Title I of the Farm Bill—the Commodity Title—represents a critical safety net for our farm families and the many employees of sugar mills, processors, and refineries throughout the country.

I will make four main points today.

First, efficient U.S. sugar producers are threatened by less efficient foreign subsidized and dumped sugar that usually sells well below the exporters cost of production. This makes the world sugar market the most distorted and volatile commodity market in the world (see *figure 2*. World's largest sugar exporters). There are no signs of that changing in the foreseeable future. The U.S. is also the third largest importer in the world of this essential commodity to meet 30 percent of our needs. This is because our trade commitments require these imports. Over the past 2 years it is clear that we must not become overly dependent on foreign suppliers for essential goods particularly for food, energy, computer chips, and the like. This is why an effective sugar policy, which maintains a strong domestic industry, is essential to the food security of our nation.

Second, U.S. sugar policy is structured to serve American farmers, consumers, food manufacturers, and taxpayers as it comes at no cost to the U.S. Treasury. U.S. sugar policy has operated at zero cost to taxpayers 17 of the past 18 years and is expected to do so again this year. USDA projects zero cost over the next 10 years, as well. The one time it did not operate at zero cost was due to Mexico's dumping of sugar onto the U.S. market at below Mexico's production costs which the International Trade Commission unanimously held violated U.S. trade law. That problem has been resolved.

However, the loan rate for raw cane sugar and refined beet sugar has not kept up with inflation nor the rising costs of production (see *figure 3*. Rising input costs).

¹ LMC International, "The Economic Importance of the Sugar Industry to the U.S. Economy—Jobs and Revenues," Oxford, England, August 2011.

² See <https://sugaralliance.org/producing-sugar-sustainably/sugar-sustainably-sweet-stories>.

³ We documented that supply chain resilience for American sugar supplies at our submission to USDA this past spring (<https://www.regulations.gov/comment/AMS-TM-21-0034-0437>).

It no longer provides a realistic safety net for our producers. Since the early 1980's we have closed 68 processing facilities and most outside investors have exited the remainder of the industry due to the high risk and low returns. It was our family farmers who stepped up to rescue the industry from further closures of their factories, mills, and refineries (see *figure 4*. Facility closures). Now many of those are struggling. Operating margins are being squeezed each year, due to rising labor, fuel, seed, fertilizer, equipment and interest rate costs that hit our producers in the field and at the factories they own.

Having a loan rate that is closer to actual costs of production would provide a more effective safety net to our producers. As such, we would support examining how the farm safety net could be updated in the next farm bill for all Title I commodities to better match actual operating costs for producers.

Third, sugarcane and sugarbeets, like most crops, are grown in areas that experience weather disruptions. Crops are resilient, yet risk protection is needed given the continued exposure to strong hurricanes, freezes, and frequent and more intense droughts. Sugarcane and sugarbeet farmers do have some insurance products available to them, but those crop insurance tools are not as well developed or affordable as for some other commodities. For sugarbeets, policies are limited to yield-based coverage and do not benefit from a revenue-based product like other commodities. For sugarcane, the Hurricane Insurance Program (HIP) has been an invaluable addition, but a prevented planting provision is needed. Participation and coverage levels for sugarcane lag significantly behind other crops so better addressing sugarcane's unique perils would be helpful. Price election methods should also be updated to better reflect market prices.

Sugarbeet farmers have participated in WHIP+ previously and cane farmers are considering how their losses in 2021 might be eligible for the most recent WHIP+ program (note that WHIP+ is not currently authorized for recent 2022 disasters such as the January freeze in Florida). For those reasons and because this Committee has signaled an interest in developing additional risk management programs in Title I to complement crop insurance, we are certainly receptive to new efforts to provide standing disaster coverage in ways that do not undermine crop insurance and possibly even encourage greater participation and coverage levels. Under any standing disaster program, we would certainly encourage the Committee to provide particular help to crops that might not have access to more successful crop insurance coverage options or for which the program has just not operated optimally.

Last, the current Title I sugar policy can provide an adequate economic safety net for American sugarcane and sugarbeet farmers, provided it is kept up to date and so long as there remains in place effective responses to foreign sugar-producing countries' subsidizing and dumping. Without those responses, we would effectively outsource our sugar supply to heavily-subsidized and unreliable foreign sugar suppliers whose environmental and labor standards simply do not measure up to our own—the opposite of strengthening supply chains and contrary to providing a safety net to American producers. Under that scenario, farmers, consumers, and taxpayers would all lose.

On behalf of the more than 11,000 sugarcane and sugarbeet farmers in the United States as well as the employees in our mills, processors, and refineries, I thank you for supporting sound U.S. sugar policy and strongly opposing harmful proposals that would undermine the success of this policy.

We encourage and welcome the Members and staff of the Committee to visit our farms and factories. We look forward to working with you as this Committee continues to hear from producers as you weigh options for improving the farm bill.

Thank you for your consideration and your support for American sugarcane and sugarbeet family farmers. I look forward to any questions you might have.

ROB JOHANSSON,
Director of Economics and Policy Analysis,
American Sugar Alliance.

Figure 1. Map of the U.S. sugar industry

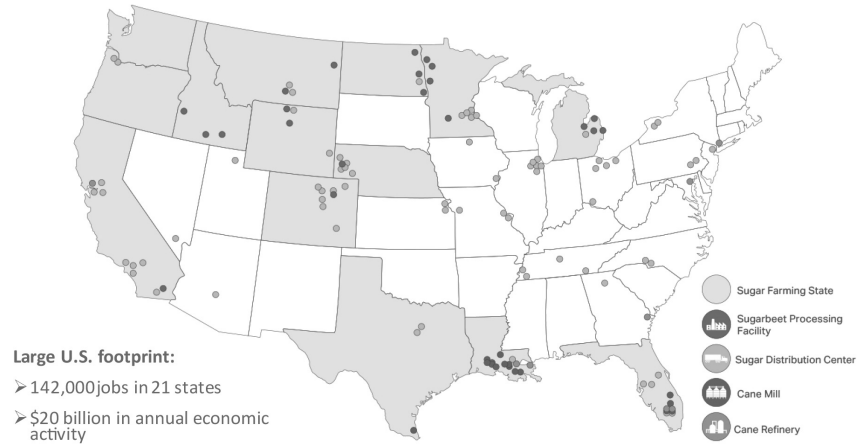
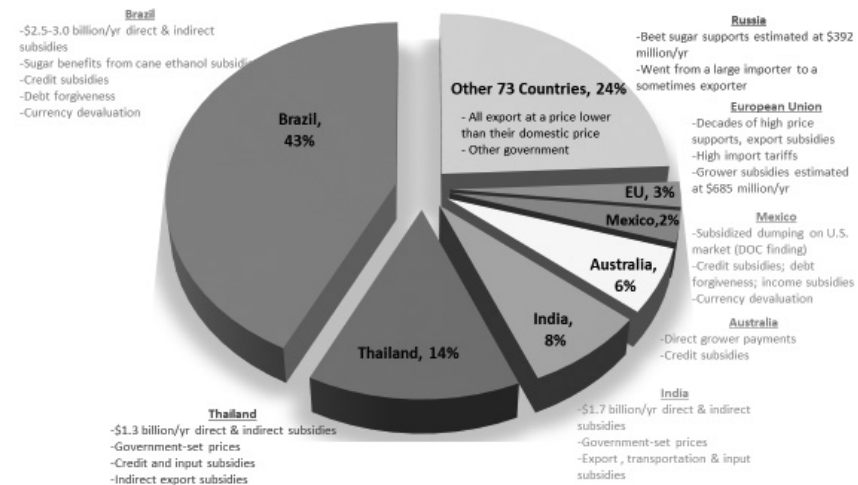


Figure 2. World's largest sugar exporters

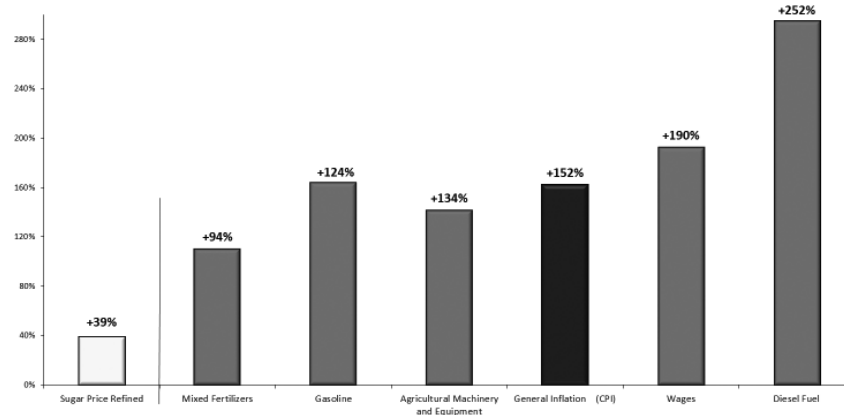
Shares of Global Exports, 5 Year Olympic Average (2015/16–2021/22)



Data: Export data—USDA/FAS, Nov. 2021. 2021/22 forecast.
 Prices—International Sugar Organization, *Domestic Sugar Prices—a Survey*, May 2019.
 Subsidies—USDA/FAS attaché reports, press reports, country studies.
 May not add due to rounding.

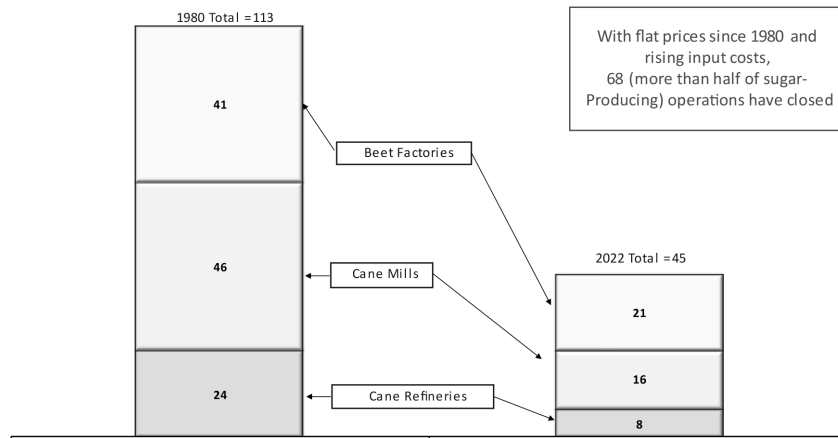
Figure 3. Rising input costs outpacing sugar price

Average Compared with 1980s Average to 2021



1980s average compared with 2021 average to-date.
 Sugar price data source: USDA, Table 5; Wholesale refined price (Midwest markets). Input cost and inflation data source: Bureau of Labor Statistics.

Figure 4. Facility closures since 1980



Source: American Sugar Alliance, 2022.

The CHAIRMAN. Thank you.
 Ms. Berg, please begin when you are ready.

STATEMENT OF NICOLE BERG, VICE PRESIDENT, NATIONAL ASSOCIATION OF WHEAT GROWERS, PATERSON, WA

Ms. BERG. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to testify before the House Agriculture Committee. My name is Nicole Berg, a fourth-generation farmer where I work alongside my dad and two brothers on our family farm in Paterson, Washington. We grow dryland and irrigated wheat on a diversified farm. Currently, I

serve as Vice President of the National Association of Wheat Growers.

NAWG is a federation of 20 state associations and other industry partners. Our members feel it is important to provide testimony before the Committee today as we reflect on the programs authorized under Title I of the farm bill. Today's hearing is timely, as NAWG is also evaluating the effectiveness of the farm safety net. These programs and how the U.S. Department of Agriculture administers them can be improved going into the next farm bill.

NAWG intends to outline our farm bill priorities in the coming months as Congress begins debating farm bill reauthorization. Wheat is one of the principle food grains produced in the United States and consumed around the world. Nationwide, there are six different classes of wheat grown in different climates and for different uses. In my State of Washington, there are roughly 2,500 wheat growers. The eastern part of the state is known for the home of soft white wheat.

Wheat farmers across the country have experienced multiple challenges over the past couple years, from trade disputes, impacts from COVID-19, current supply chain issues, difficulty in procuring inputs, and extreme drought and several other weather events. Supply chain issues and availability of inputs continue to present challenges for us farmers. These challenges include rising prices and availability of fuel, parts, vital equipment, and other crop protection tools that allow farmers to continue using climate-smart ag practices like no-till.

The current agriculture economy is strong with near record high prices, improving working capital, farmland value, farm income, and revenue. However, this is not without concern. The USDA projects net farm income to decrease by 7.9 percent when adjusted for inflation in 2022, thanks to rising input costs, supply chain crunches, and significant droughts through wheat country that negate the high wheat prices.

The high prices of these last 2 years will not last forever. It is important that Congress maintains a strong safety net for the farm economy, given its difficult nature. As part of the 2018 Farm Bill, wheat growers supported improvements in the crop insurance title, marketing assistance loans, and the ARC and PLC, and all these programs are necessary to maintain an effective safety net.

One such improvement for ARC and PLC was the ability for farmers to make annual elections between the two programs. This has provided a valuable option for farmers to better manage their risk. According to data from the USDA, since the 2018 Farm Bill, we have seen a major shift in wheat farmers' choices from ARC to PLC. Regarding service, the ability to reelect, and the application process is straightforward and has been easy to use.

On farmer education, the USDA and university extension agencies have done a good job providing tools to help farmers make an educated choice on the program election. Investment in these models is essential. One common complaint among farmers is the difficulty of using and interpreting models, and the lack of awareness of their existence. In my situation, we find it challenging to interpret the models—what it is telling us to do, so we have accountants that run models for us.

While wheat farmers almost universally enroll in PLC, there are still issues that persist with the program that the Committee should consider in the next farm bill. Wheat farmers consistently lose money producing wheat, according to USDA cost production data when factoring in total costs. Keeping this in mind, the Committee should consider how to make ARC more effective for the wheat farmers, and how to improve PLC to be more reflective of the current cost of production.

As the Committee continues to have these hearings and reflect on programs authorized under the 2018 Farm Bill, I look forward to working with the Members of the Committee, their staff, and other witnesses here today to help craft the next farm bill that works for wheat farmers and all of agriculture. Thank you again for the opportunity to testify before the Committee today.

[The prepared statement of Ms. Berg follows:]

PREPARED STATEMENT OF NICOLE BERG, VICE PRESIDENT, NATIONAL ASSOCIATION OF WHEAT GROWERS, PATERSON, WA

Chairman Scott, Ranking Member Thompson, and Members of the Committee thank you for the opportunity to testify before the House Agriculture Committee. My name is Nicole Berg, a fourth-generation farmer where I work alongside my dad and two brothers on our family farm in Paterson, Washington. Currently, I also serve as the Vice President of the National Association of Wheat Growers (NAWG). We grow dryland and irrigated wheat; Blue Grass Seed; Field Corn; Sweet Corn, Sweet Peas, Green Beans, and Alfalfa. Thank you for holding this hearing today to discuss Title [I]—the commodity title—of the 2018 Farm Bill. The Title [I] programs established under the 2014 Farm Bill and reauthorized in the 2018 Farm Bill deliver important risk management tools for farmers and help protect producers from declines in either crop revenue or prices.

NAWG is a federation of 20 state wheat grower associations that work to represent the needs and interests of wheat producers before Congress and Federal agencies. Based in Washington, D.C., NAWG is grower-governed and grower-funded and works in areas as diverse as Federal farm policy, environmental regulation, the future commercialization of emerging technologies in wheat, and uniting the wheat industry around common goals. Our members feel it is important to provide testimony before the House Agriculture Committee today as we reflect on the programs authorized under Title [I] of the farm bill. Today's hearing is particularly timely as NAWG is also evaluating the effectiveness of the farm safety net programs, how those programs can be improved going into the next farm bill, and how the U.S. Department of Agriculture (USDA) administers these programs. Many of us at this hearing today will be at Commodity Classic next week, where our organization will continue to review the authorized farm bill program. NAWG intends to outline our farm bill priorities for lawmakers in the coming months as Congress begins debating farm bill reauthorization.

According to the USDA's Crop Production Summary released last month, wheat growers planted 46.7 million acres of wheat in 2021, up 2.3 million acres from the year prior. However, production was down from 1.83 billion bushels of wheat in 2020, to 1.65 billion bushels in 2021. The decrease in production—from 49.7 bushels per acre to 44.3 bushels per acre—was largely due to the severe drought, which is discussed later in my testimony. Wheat is the principal food grain produced in the United States and consumed around the world. In the last decade it ranked third among U.S. field crops in both planted acreage and gross farm receipts, behind corn and soybeans.

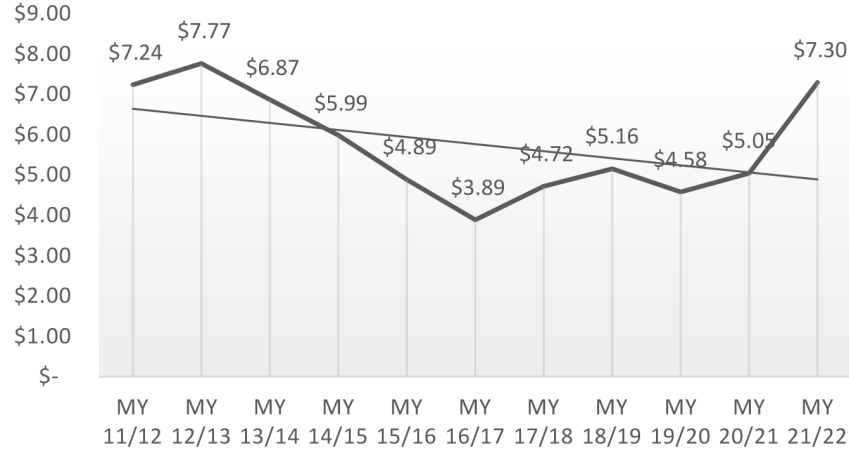
Nationwide, there are six different classes of wheat, each of which is grown for different uses. In my home state of Washington where there are roughly 2,500 growers, the eastern part of the state is known as the home of soft white and club wheat production. These varieties are known for their use in cookies, crackers, and cakes as well as flat breads. Washington farmers also raise superb hard red winter and spring wheats for bread.

Economic Conditions in Wheat Country

The agricultural economy can be described as nothing short of a roller coaster ride for most producers. Wheat growers across the country have experienced a multitude

of challenges the past couple of years, from trade disputes, impacts of COVID-19, extreme drought and other severe weather events, current supply chain issues and difficulty in procuring key inputs. As a result, wheat prices are generally the item most pointed to when looking at the agricultural economy. The graph below, made using USDA Economic Research Service (ERS) data, demonstrates the Marketing Year Average Price for wheat over the past decade.

Wheat Marketing Year Average Price

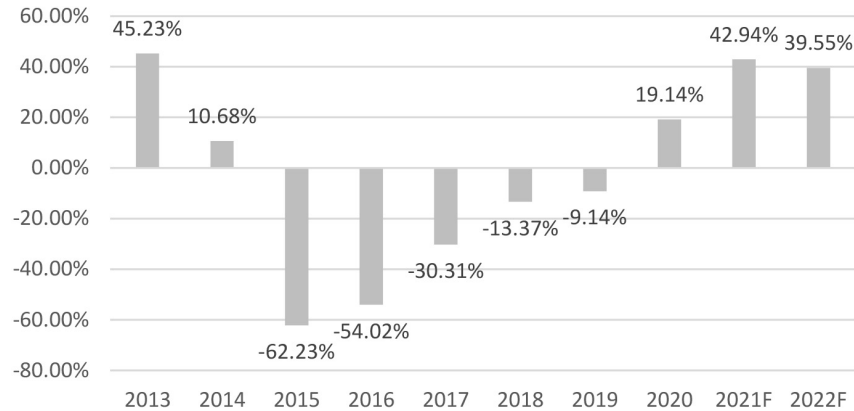


Wheat farmers caught a break these last 2 years in terms of price. These increased prices since the marketing year 2019/2020 have been primarily due to three factors, each of which will be discussed further in my testimony.

- The pandemic and inflation
- Droughts across the country
- International disruptions

These increases in price have been reflected in net cash income for farm businesses. Net cash income is the cash available to farmers to draw down debt, pay taxes, cover family living expenses, and invest. Thanks to the high prices, farmers have seen the highest net cash income since 2013. These prices have been a much-needed break from record low levels that preceded the 2018 Farm Bill. These recent developments have led to a decrease in farm debt, improved credit conditions, and increased farmland values. Prospects for farm income moving into the new year remain high. This can be seen when looking at the percent change from the 10 year average of net cash income in the graph below, which also uses ERS data.

Percent Change from 10 year Average of Farm Business Net Cash Income



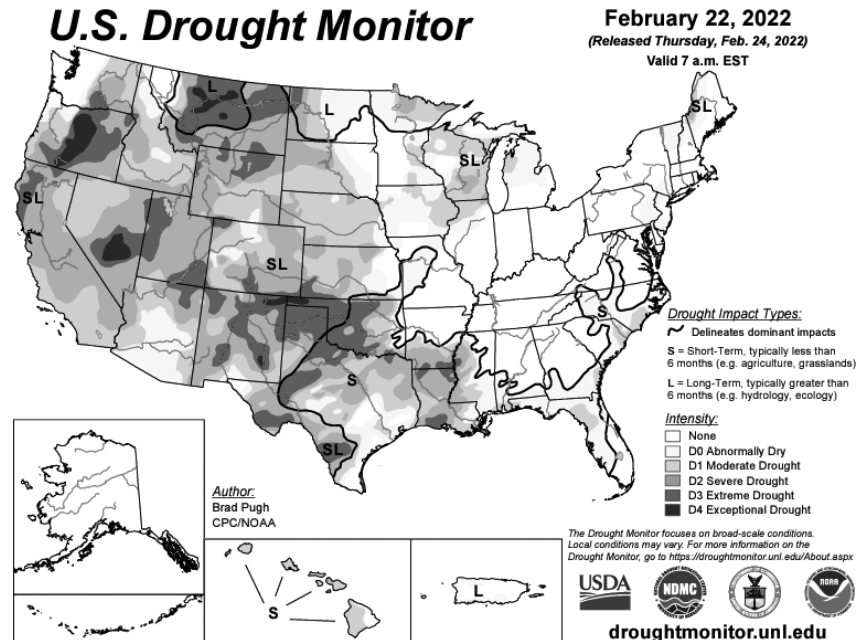
After sustaining massive financial losses from 2014–2018, the last 2 years have been crucial in keeping the American wheat farmer in business. Many farmers were facing bankruptcy, and indeed many lost their farm. However, USDA programs such as the Market Facilitation Program (MFP) and Coronavirus Food Assistance Program (CFAP), coupled with recent high crop prices, have helped the agriculture economy stay whole and begin to recover after years of economic turmoil.

Unfortunately, the three factors mentioned earlier that have helped increase prices and rebound the economy could ultimately threaten the viability of farmers once again.

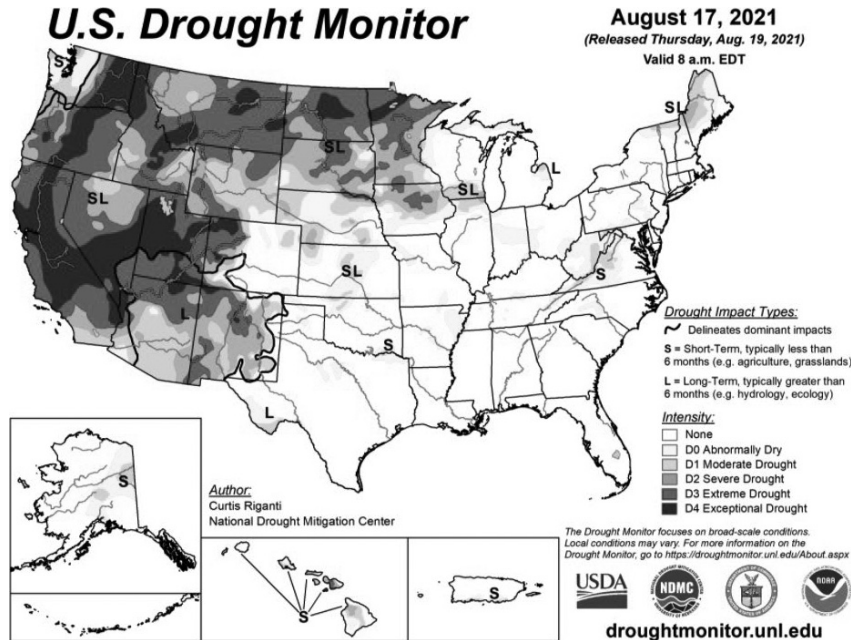
The pandemic has created reverberations across the entire economy. The agricultural economy was not immune to this. While prices have improved thanks to the increased demand for at-home food products, especially flour, it has also created inflation that threatens to eliminate the gains from price increases. As supply chains have been disrupted or halted, farmers have faced many different challenges. These challenges include rising fuel costs, increasing prices for parts—if they can get them at all—and vital equipment, such as tractors, combines, and implements. Some of these items have been on backorder for over a year. For example, it's tough to manage the 2022 wheat harvest when you have been waiting on a part for over a year or the combine you need will not be available until April 2023.

The supply chain challenges, and availability of inputs has also been felt in the case of fertilizer and other crop protection tools that are required to deploy climate-smart agricultural practices like no-till. One analysis that a wheat farmer in southwest Kansas made on his own 308 acres of no-till fallowed wheat showed that the price per acre of crop protection tools more than tripled between 2021 and 2022, an increase of \$27,981.80. This increased cost does not tell the whole story of increased input costs either as labor, and equipment parts and repairs. This is only a small fraction of the entire increases in costs that wheat farmers are now facing.

Droughts across the country were also a driving factor in the increase in prices starting in 2020 that continue to push prices today. Unfortunately, as drought worsens, the chances for a strong wheat crop also worsen. This drought map taken from February 24, 2022, shows that the vast majority of the wheat producing areas in the United States is in at least a severe drought.



Spring wheat country like my own state of Washington has been hit particularly hard by this drought. The drought map below shows the devastating reach of one of the worst droughts in recent history for growers in the Pacific Northwest and across the northern tier. This map is from August of last year as farmers were planning to plant winter wheat or wrapping up harvest.



According to the USDA 2021 Small Grains Report, spring wheat saw a 44 percent reduction in total bushels despite only a seven percent decrease in planted acres. In my home State of Washington, we only produced 87.1 million bushels of wheat, where in 2020 we produce 166.2 million bushels. No matter how high the price for wheat gets, if a farmer can't produce a crop thanks to drought, they can't turn a profit.

Last, the international disruptions in the market have led to massive volatility in recent weeks. As the world watched in horror as Russia invaded Ukraine, grain markets soared and then retreated some on Friday. The February World Agricultural Supply and Demand Estimates from the USDA projected both Russia and Ukraine to be a large exporter of wheat, which is largely transported through the Black Sea. The current high prices caused by not only this conflict, but previous international disruptions in trade may not last long, and the unknown outcomes of that conflict will undoubtedly create market volatility.

Overall, the current agriculture economy is strong with near-historically high prices improving working capital, farm income and revenue, and farmland value. However, it is not without concern. The USDA projects net farm income to decrease by 7.9 percent when adjusted for inflation in 2022 thanks to rising input costs, supply chain crunches, and significant droughts throughout wheat country that make high wheat prices irrelevant to many farmers. The important thing to remember is that good times in the farming economy rarely last. Removing essential pieces of the farming safety net can have disastrous consequences when the economy inevitably takes a downturn. Frequently throughout history, an improving farming economy is followed by changes to agriculture policy, only to see a farming economic recession. Therefore, the high prices brought on these last 2 years will not last forever, and it is important that Congress maintain a strong safety net in place given the cyclical nature of the farm economy.

2018 Farm Bill Safety Net and Risk Management Programs

NAWG supported the passage and enactment of the bipartisan 2018 Farm Bill, which provided certainty during a difficult time and improved upon the revolutionary 2014 Farm Bill, which established the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs. As mentioned earlier, farmers experience significant risk from market volatility to mother nature. As part of the 2018 Farm Bill, wheat growers strongly supported maintaining a strong crop insurance title, which, along with ARC and PLC, serve as key pillars to the risk management strategy kick

in for losses not covered by crop insurance. These additional tools are necessary to support American agriculture and our rural communities.

Since the revolutionary changes of the 2014 Farm Bill that did away with direct payments, the producer choice between revenue protection and price protection has continued to function as was intended. With the reauthorization in 2018, ARC and PLC, there were improvements made to both programs. One such improvement was the ability for producers to re-elect programs beginning with the 2019 crop year and then with the ability for annual elections since the 2021 crop year. The ability to elect annually has provided a valuable option for producers to help them better manage their risk. Additionally, as part of the 2018 Farm Bill, the Agriculture Committees recognized the importance of using consistent data in determining farm program payments, while making USDA Risk Management Agency (RMA) data its primary source, and for making key improvements to both ARC and PLC.

While there are still improvements to be made moving into the next farm bill, Title [I] Programs remain a popular and valuable tool in managing farmer's risk.

Agriculture Risk Coverage (ARC) program

As part of their farm program election choice, farmers are able to choose between county level or individual level coverage. County level coverage will continue to pay on 85 percent of base acres, while individual level coverage will continue to pay on 65 percent of base acres. Additionally, counties that are larger than 1,400² miles and contain more than 190,000 base acres had the opportunity to split into two administrative units for the purposes of ARC-County (up to 25 counties nationwide). Administrative improvements to ARC included a requirement that RMA yield data be used if it's available in a county and that the physical location of a farm be used to determine which county payment rate applies to that specific farm.

In terms of programmatic improvements, the bill increased the plug yield from 70 percent to 80 percent of the transitional yield, required USDA to calculate and use a trend-adjusted yield factor to adjust yields (similar to the crop insurance trend-adjusted yield endorsement), requires the use of an effective reference price (similar to the PLC change where reference prices can increase if certain market improvements happen over time), and it requires the publishing of separate irrigated and non-irrigated yields in each county. USDA is also required to publish payment rate information within 30 days of the end of the marketing year for each commodity publish the data source that was used.

Price Loss Coverage (PLC) program

The 2018 Farm Bill maintained the current statutory reference prices but requires the use of an "effective reference price." In any given year, the 5 year Olympic average market year average price will be multiplied by 85 percent; if that level is higher than the statutory reference price, then the effective reference price is that level up to 115 percent of the statutory reference price. The maximum level for wheat would be \$6.33 per bushel, and it cannot drop below the statutory reference price of \$5.50.

Current law also allows for all producers nationwide the option of updating their yields for PLC in the 2020 crop year. The yield update would be 90 percent of the average farm yield of the 2013–2017 crop years (with a plug of 75 percent for any year that a yield was lower than that), and that level is multiplied by a ratio obtained by dividing the 2008–2012 national average yield by the 2013–2017 national average yield, with the ratio limited to between 90–100 percent.

Marketing Assistance Loans

The Marketing Assistance Loan (MAL) program and Loan Deficiency Payments (LDP) were maintained in the 2018 Farm Bill. Loan rates used in the program were increased for several commodities during reauthorization, including a 15 percent increase for wheat from the current level of \$2.94 to \$3.38 per bushel. As the Wheat Marketing Year Average Price on page 2 illustrates, 2016 was a particularly bad year for wheat growers and was also the last time when the LDPs have been made available. Prior to 2016, it had been 16 years since wheat farmers were able to collect LDPs. While we are fortunate prices have not been at the level for these programs to kick in, as mentioned earlier, there were significant periods of depressed prices, and the loan rates may need further consideration and analysis to serve as effective programs. NAWG is currently reviewing the efficacy of these programs going into the farm bill reauthorization.

Accessibility of USDA Programs

The application process is straightforward and has been easy to use for growers. While some Federal programs have large amounts of paperwork that must be

combed through by lawyers, the application for ARC and PLC is just a signature form. This is one of the attributes that has led to the large amount of adoption.

In some instances, what has made this difficult is the staffing levels in county offices. The USDA currently has full hiring authority and is working to fill vacated positions at the county level. The USDA also maintains that they continue to provide pre-pandemic levels of service. However, some areas of the country were understaffed before the pandemic and continue to be so understaffed that farmers are receiving poor service, at no fault of the employees. Farmers have voiced these concerns within our organization. Some farmer's counties have no or significantly reduced FSA staff, and they are forced to travel to other counties to receive service. In some rural counties, this can amount to drives of 2 or more hours one way, which can be very onerous during planting or harvest season. Some counties are authorized to have multiple employees but are only staffed with one or fewer employees. This causes serious issues and frustrations to farmers. It is important that the House Agriculture Committee works with the USDA, other administrative agencies, and other Congressional committees to find ways to address these issues that impact other farm bill programs as well.

The USDA and university extension agencies have done a good job of informing farmers about Title [I] programs and providing tools that help them forecast the upcoming year to make an educated choice on program election. Investment in these models is essential as, without them, farmers are left to guess about what they think might happen and which program might protect them. However, one common complaint amongst farmers is the difficulty in using and interpreting the models and the lack of awareness that these modeling tools exist. In my situation, we find it challenging to interpret what the model is telling us to do, so we have accountants that run the models for other clients and us. These modeling tools, while extremely important, need accompanying technical support and training through FSA to help farmers utilize these tools more effectively.

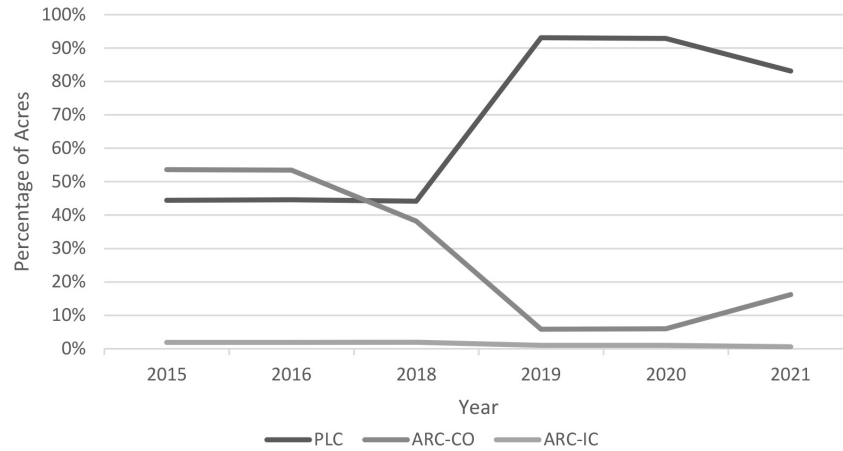
Implementation of Programs

NAWG is currently working through our priorities for the next farm bill and will make sure to share them with you once they are finalized. Looking back at the 2018 Farm Bill, however, there are certainly programs that excelled and other that could be refined to better serve grower needs.

One popular change from 2014 to 2018 was the ability to make yearly elections between ARC and PLC. In 2014, farmers were forced to forecast out the next 5+ years to determine which program they thought would best protect them. In many cases, farmers were wholly uninformed, unprepared, and made a choice based on the limited information that land-grant extension agencies were able to provide them with. They were then forced to remain in these programs even though they were not being adequately protected. The ability to choose between the programs allows farmers a much tighter safety net that varies year on year.

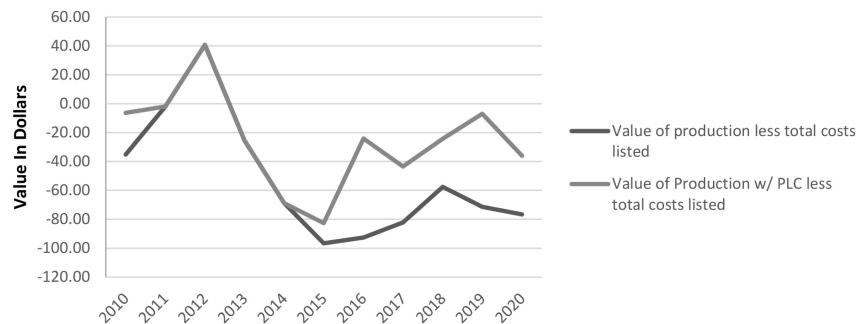
According to data from the USDA, prior to the 2018 Farm Bill, wheat farmers chose ARC more frequently than PLC. Since the 2018 Farm Bill however, wheat farmers choose PLC 78 percent of the time on average, with highs of 93 percent in 2019 and 2020. The percentage of acres enrolled in ARC and PLC can be shown in the graph below.

Percent of Enrollment by Program



While wheat farmers almost universally enroll in PLC, there are still issues that persist with the program that the Committee should consider going into the next farm bill. As established in my introduction, wheat is the staple food grain produced in the United States. Meanwhile, wheat farmers consistently lose money producing wheat according to USDA cost of production data when factoring in total costs listed by the USDA. In 2020, wheat farmers lost \$76.62 an acre, an increase from the lows of 2015 when wheat farmers were losing \$96.60 per acre. In fact, it has not been profitable for wheat farmers to grow wheat since 2012, when farmers made \$40.70 an acre. Enrolling in PLC has helped with this issue, but it does not prevent losses. In 2020, the value of production with PLC less total costs, according to USDA, was a negative \$36.05. This data can be found in the graph below. Without farm bill programs like those contained in Title I, these sustained losses and missed opportunities are what ultimately push farmers to bankruptcy and out of the industry.

Value of Production Less Total Costs



Keeping this in mind, the Committee should consider how to make ARC more effective for wheat farmers and how to improve PLC to be more effective at preventing these types of total losses. Both loan rates and PLC reference prices should undergo thorough investigation throughout this review process, especially given recent inflation and increases in input prices, not to mention land costs.

The 2018 Farm Bill attempted to remedy this issue with the effective reference price mentioned earlier in my testimony. This change to the reference price will help if the current high prices are sustained over multiple years. Overall, having an adjustment that takes years to occur is too slow with the current volatility of commodity markets and ever-increasing cost of production.

Another issue the Committee needs to think about is the timing of these payments. For wheat, payments come almost a year and a half after the crop is harvested. Farmers often need help more immediately. When major disruptions occur in the agriculture economy or in weather patterns that effect yield, waiting eighteen

months to hit the safety net can prove disastrous. By that time, some farmers may be forced into bankruptcy.

At the end of the day, farmers prefer producing a crop and selling it for a profit over government payments. However, Title [I] farm bill programs help provide certainty whereby growers can make long-term investments in land and equipment where it would otherwise be incredibly difficult if not prohibitive for growers. This is even more apparent when looking at farmers who don't have equity built up or enough working capital to withstand difficult years as established farmers can, which is a particular challenge with new or beginning farmers or socially disadvantaged growers. That is why Congress should evaluate program effectiveness and work to improve upon them in a timely manner.

Conclusion

NAWG's policy committees and board of directors will be meeting in the coming weeks to continue evaluating the effectiveness of these programs and work to finalize our key policy priorities over the coming months. These priorities will be shared with you and your staff upon being finalized. As the House Agriculture Committee continues to have these hearings and reflects on programs authorized under the 2018 Farm Bill, I look forward to working with the Members of this Committee, their staff, and the other witnesses here today to help craft the next farm bill that works for wheat growers and all of American agriculture. Farmers play a key role in helping sustain our rural communities and feeding the world. As the farm bill process continues, I would urge judicious and expeditious review of authorized programs and work to ensure a full reauthorization of farm bill programs prior to the expiration of the current farm bill on September 30, 2023, so that producers have certainty about the structure of the safety net moving forward.

We look forward to continuing to work with you to ensure a strong U.S. farm economy. Thank you again for this opportunity.

Sincerely,

NICOLE BERG,
Vice President,
NAWG.

The CHAIRMAN. Thank you, Ms. Berg.

Mr. Edgington, please begin when you are ready.

STATEMENT OF CHRIS EDGINGTON, PRESIDENT, NATIONAL CORN GROWERS ASSOCIATION, SAINT ANSGAR, IA

Mr. EDGINGTON. Chairman Scott, Ranking Member Thompson, and Members of the House Agriculture Committee, thank you for the invitation and opportunity to testify today. My name is Chris Edgington. I live and farm in Saint Ansgar, Iowa, where multiple generations of my family raise primarily corn and soybeans. I currently serve as President of the National Corn Growers Association, and we are a farmer-led trade association that works with our affiliated state associations to help protect and advance corn grower interests. On behalf of my fellow corn growers, thank you for you and your public service, dedication to agriculture, rural America, and the farm economy.

Since the passage of the 2018 Farm Bill, corn growers have faced volatility in the marketplace with periods of low prices and higher prices. Today's futures and cash prices appear strong; however, there are no assurances that commodity prices will continue to trend upwards or if they will even stay where they are at. Rising input costs are a major concern, specifically fertilizer. Prices have soared to record levels and several companies have unfortunately made a bad situation worse for growers by applying for tariffs to be applied to imports of phosphate and nitrogen fertilizers respectively. NCGA and our state affiliates continue to focus on addressing high input costs, including direct requests to those companies to voluntarily withdraw their tariff petitions.

Widespread drought and intense heat impacted much of the corn belt last year, and unfortunately, drought conditions have continued into 2022. In 2020, corn growers suffered major losses due to the devastating derecho that hit millions of highly productive cropland. In 2019, crop production was heavily impacted with flooding and excess moisture throughout the Missouri River basin. Federal crop insurance plays a significant role in the wake of natural disasters. Producers also appreciate your efforts to extend and improve disaster programs for 2020 and 2021 for uncovered risks and losses.

NCGA has long advocated for market-oriented farm policies. Our focus continues on tools geared toward revenue, which factors in both yield and price risk that growers face. We support the continued ability for producers to choose between Agriculture Risk Coverage, ARC-County, ARC-Individual, and Price Loss Coverage, or PLC programs. We appreciate the commodity program signup period are now similarly tied to crop insurance decisions. NCGA supported the development of the ARC county and ARC individual programs. In the 2018 Farm Bill, we supported shifting the primary focus away from using NASS yield data to RMA to help minimize county by county payment differences. We also supported additional improvements to yield calculations and transparency to payment components. The PLC program has historically provided limited support for corn growers. Given the trend of increased corn yields year after year, though, the growers appreciated the opportunity to increase their PLC yield in 2020. And while use of the marketing assistance loans is small among our members, the program remains an accessible tool for corn growers without base acres.

Implementation of the current farm bill has been fairly smooth, helped by the familiarity of the program, lengthy signup periods, and increased transparency of the program components. We commend the Committee for the continued support of web-based decision tools that help facilitate grower education and evaluation of the commodity programs and options. While COVID-19 has been difficult for face-to-face interaction with growers, we appreciate efforts at FSA to provide flexibility with producer signup. Opportunities exist to build upon those lessons, and to further reduce the reporting burden on producers.

NCGA and our state affiliates are gearing up to provide additional input and farm bill recommendations. NCGA has already commissioned and conducted a nationwide survey of growers on the usage and views of risk management tools and conservation programs. Next week, we will gather in New Orleans at the annual Commodity Classic, where growers will propose, debate, and vote on updates to our policies.

We look forward to working with the Committee as NCGA develops a more formal policy priority. Thank you to Representatives Cheri Bustos and Austin Scott for including corn growers in the previous Subcommittee roundtable discussion on farm safety net programs. As the Committee continues oversight of USDA and evaluates the structure of safety net programs, please do not hesitate to reach out to growers for perspectives at future hearings, listening sessions, roundtables, or farm tours.

In closing, NCGA recognizes the difficult task ahead to develop the next farm bill. We appreciate your consideration of our views regarding commodity programs, and the need for producers to have access to effective risk management tools.

[The prepared statement of Mr. Edgington follows:]

PREPARED STATEMENT OF CHRIS EDGINGTON, PRESIDENT, NATIONAL CORN GROWERS ASSOCIATION, SAINT ANSGAR, IA

Chairman Scott, Ranking Member Thompson, and Members of the House Agriculture Committee, thank you for the invitation and opportunity to testify today.

My name is Chris Edgington. I live and farm in St. Ansgar, Iowa, where multiple generations of my family raise primarily corn and soybeans. I graduated with a Bachelor of Science degree in animal science from Iowa State University.

I currently serve as the President of the National Corn Growers Association (NCGA). Founded in 1957, we are a farmer-led trade association that works with our affiliated state associations to help protect and advance corn growers' interests. The NCGA mission is to create and increase opportunities for corn growers and our vision is to sustainability feed and fuel a growing world.

On behalf of the nearly 40,000 dues-paying corn farmers nationwide and more than 300,000 corn growers who contribute to corn promotion programs in their states, thank you for your public service and dedication to agriculture, rural America, and the farm economy.

This morning, I will summarize key challenges corn growers face, our reflections on commodity programs, and thoughts on development of the next farm bill.

Farm Economy and Challenges Facing Corn Growers

Corn and corn products remain critically important to the U.S. agriculture economy, serving to supply rising domestic needs for food, feed, and energy. In 2021, U.S. growers planted over 93.4 million acres of corn, which produced over 15.1 billion bushels with a value projected at \$82.3 billion. Nearly 40% of the corn grown in the U.S. is used for livestock feed and another roughly 40% is used for food and industrial purposes, including ethanol production.

Since the passage of the 2018 Farm Bill, agriculture has faced volatility in the marketplace with periods of low prices and higher prices. In 2020, corn prices fell below \$3 during the peak of COVID-19, where we saw significant demand destruction for corn, livestock, and ethanol products. Today's futures and cash prices appear strong, however there are no assurances that commodity prices will continue to trend upwards or stay at their current level. In fact, during the recent U.S. Department of Agriculture (USDA) Outlook Forum, USDA projected that corn prices would decline in 2022 to an average of \$5 per bushel. This would represent an 8.3% decline from the average price of \$5.45 per bushel in 2021.

While farmers are fairly optimistic regarding potential returns with current market prices, rising input costs are a major concern. Early in February, USDA's Economic Research Service (ERS) forecasted that net farm income for all of agriculture will be \$113.7 billion in 2022. These estimates represent a decrease in net farm income of \$5.4 billion (4.5 percent) compared to 2021. While income from cash receipts is expected to be strong, ERS highlighted that higher production expenses are expected to counteract their net effects, along with lower direct government payments.

The Purdue University/CME Group Ag Economy Barometer for February 2022 captures the squeeze that producers are feeling on their farms. Last month's results had the second-lowest sentiment reading since July of 2020, which was during the height of the early stages of the pandemic. According to the report, "concerns about rising input costs and ongoing supply chain disruptions contributed to weakness in the current conditions index."

Specifically, fertilizer prices have soared to record levels, and several companies have unfortunately made a bad situation worse for growers by applying for tariffs to be applied to imports of phosphate and nitrogen fertilizers, respectively. NCGA and our state affiliates continue to focus on addressing high input costs, including direct requests that the companies voluntarily withdraw their tariff petitions.

Biofuels

Ethanol production and demand for low carbon fuel provides an important market for corn growers. For the 2021 corn crop, 5.3 billion bushels are expected to be used for ethanol production. This includes more than 1.1 billion bushels of distillers grains co-products returned from ethanol production to animal feeds. Between 2016 and 2021, U.S. corn ending stocks have averaged more than 1.5 billion bushels an-

nually, illustrating availability of additional feedstock to increase renewable fuel production, while continuing to meet and exceed current demands for food, feed, and exports.

Since Congress expanded the Renewable Fuel Standard (RFS) in 2007, farmers have increased corn production, not by bringing additional land into production, but through higher yields that have resulted in more production on less land and with fewer resources. Planted corn acres in 2021, at 93.36 million acres, were just less than planted acres in 2007, the year the RFS was expanded, at 93.5 million acres, yet production is forecast to increase by 15.9 percent for 2021 compared to 2007. Corn production has increased because crop yields have increased from an average of 150.7 bushels per acre in 2007 to 177 bushels per acre in 2021. With the average yield in 1980 at 91 bushels per acre, productivity growth is a long-term trend; domestic corn production has grown steadily at a 25 year average rate of around two percent, or 250 million bushels per year.

These yield increases are due to corn farmers adopting conservation and best management practices, along with technology advances. These improvements reduce the carbon intensity of both the corn feedstock and renewable ethanol, while also protecting and enhancing soil and water quality.

Weather Related Disasters

Widespread drought and intense heat impacted much of the corn belt during the 2021 growing season. Unfortunately, those conditions have continued into 2022 for many producers across the country. According to the U.S. Drought Monitor, as of February 22, 2022, approximately 31% of corn production is located in areas experiencing drought. Growers across the plains states and the Southeast are still facing severe and extreme D2 and D3 drought conditions, right as planting season kicks off.

In 2020, growers across Nebraska, Iowa, Illinois, and Indiana suffered major losses due to the devastating derecho. The storm and accompanying damaging winds hit millions of acres of highly productive cropland in August before corn harvest could begin.

Corn production was also heavily impacted in 2019 by wet weather conditions during planting season with flooding and excess moisture across the high plains and throughout the Missouri River Basin. The unusually wet spring prevented many farmers from accessing flooded fields. Nationwide, 2019 set a record with over 19 million acres of cropland reported as prevented from being planted. This included over 11 million acres of corn that were reported as prevented from being planted.

Federal crop insurance plays a significant role in resilience in the wake of natural disasters. According to the Risk Management Agency (RMA) Summary of Business, in 2021, corn growers purchased coverage on over 83 million acres and companion and endorsement policies on an additional 10 million acres nationwide. These risk management policies represent liabilities over \$52 billion.

Producers appreciate efforts by the Committee to extend and improve disaster programs for 2020 and 2021 for risks and losses that are uncovered by Federal crop insurance. We look forward to USDA's implementation of this assistance this year.

Farm Bill Commodity Programs

NCGA has a long history of advocating for market-orientated farm policies, including commodity and crop insurance programs that help growers manage their risks. Our focus continues to be on accessible and defensible tools geared towards revenue, which factors in both yield and price risks that growers may face throughout the growing and market seasons.

During the 2018 Farm Bill, we supported increasing the opportunities for producers to choose between the commodity programs. In 2019, producers were able to elect between the Agriculture Risk Coverage County (ARC-County), ARC-Individual, and Price Loss Coverage (PLC) programs for the 2019 and 2020 crop years. Producers now have an annual opportunity to change their elections, which started in 2021. Growers are currently working with their Farm Service Agency (FSA) offices ahead of the March 15, 2022, deadline for program elections for the upcoming crop year.

Corn producers have already used this new opportunity to change their elections based on market conditions. According to FSA data, for the 2019 and 2020 crop years, around 75% base acres nationwide for corn were enrolled in PLC, 19% were in ARC-County, and 6% in ARC-Individual. For the 2021 crop year, 51% of corn base acres were enrolled in PLC, 47% in ARC-County, and less than 2% in ARC-Individual.

We support the continued ability for producers to choose between programs, instead of being locked into a 5 year irreversible decision. We appreciate that com-

modity program sign-up periods are now similarly timed with crop insurance decisions.

For the 2020 crop year, the ARC and PLC programs issued a combined \$41.3 million in payments to corn growers, including \$27.3 million through the ARC-County and \$14 million through ARC-Individual. The PLC program did not trigger for corn farmers in 2020. For the 2019 crop year, the programs issued a combined \$1.56 billion in assistance for corn growers, including \$1.1 billion through PLC, \$280 million through ARC-County and \$183 million through ARC-Individual.

The design of the programs, combined with the delay in payments until October following the marketing year, results in only 2 years of payment data to evaluate. However, NCGA appreciates the Committee and USDA's work to provide more transparency to payment components. FSA now regularly publishes key information regarding benchmark prices, yields, revenues, and market average prices for both programs.

While neither commodity program is expected to trigger for many corn producers in 2022, this reflects the counter-cyclic design of the commodity programs. However, if conditions were to change through the growing and marketing seasons and result in a sharp decline in commodity prices along with major yield losses, the commodity programs could provide some level of assistance.

ARC-County and ARC-Individual

NCGA supported the development of the ARC-County and ARC-Individual programs and their continuation. During implementation of the 2014 Farm Bill, producers experienced large differences between payments in similarly situated counties. To minimize future county-by-county differences, in the 2018 Farm Bill we strongly supported shifting the primary source of yield data for the ARC-County program from the National Agricultural Statistical Service (NASS) to aggregated data from RMA. NCGA also supported requiring assistance be determined by physical location of the farm, not administrative counties.

We are thankful for multiple improvements to the ARC-County program including provisions incorporating trend adjusted yields and increasing the transitional yield, *i.e.*, yield plug. Given the nature of a county-based program, growers continue to experience some disparities in payments to producers in different counties, but there is now more confidence in the structure and data that supports the program.

PLC and MALs

The 2018 Farm Bill kept the statutory reference prices for the PLC program and raised loan rates across most commodities. For corn, the PLC reference price is set at \$3.70 and the loan rate under the Marketing Assistance Loan (MAL) program was raised from \$1.95 to \$2.20. The PLC program has historically provided more limited support for our growers than the ARC-County program. However, for the first 2 years of the 2018 Farm Bill more corn base acres were elected to PLC, reflecting the low-price environment for those years and producers' ability to change elections more frequently.

Given the continued trend of increased corn yields year after year, growers appreciated the option to update PLC yields on a farm and crop basis in 2020. The new effective reference price provision has not yet triggered for corn.

While use of MALs is small among our members, the program remains an accessible commodity program tool for corn growers without base acres. According to FSA, in 2019, there were 13,777 MAL loans issued for 782.8 million bushels of farm stored corn and in 2021 there were only 5,675 loans on 435 million bushels.

Farm Bill Implementation

FSA continues to be a great partner with producers and commodity organizations. Implementation of the current farm bill has been fairly smooth, helped by familiarity of the programs, lengthy sign-up periods, and increased transparency of the program components, as well as USDA fact sheets and additional resources on *farmers.gov*. We commend the Committee for continued support of web-based decision tools that help facilitate growers' education and evaluation of commodity programs and options.

Overall, the quality of customer service at the county offices can depend on whether there is adequate and experienced staffing. NCGA is supportive of providing resources for implementation and staff training, which makes a positive impact on the roll out of changes to commodity programs. While the COVID-19 pandemic has been difficult for face-to-face interactions with growers, we appreciate agency efforts to provide flexibility with producer sign-ups. USDA deserves credit for continuing to implement and administer commodity and disaster programs.

NCGA encourages the continuation of the Acreage and Crop Reporting Streamlining Initiative (ACRSI) and similar efforts to improve the farmer customer experi-

ence and create greater efficiency for multiple USDA agencies. The agencies are already working closer to together and should continue to share common data and best practices.

Opportunities exist to build upon the lessons of the pandemic and to further reduce the reporting burden on producers. USDA can continue to find more ways to use data already submitted to the department or for farmers to submit additional information electronically, which may reduce the number and length of in-person visits to county offices.

NCGA Farm Bill Process

NCGA and our state affiliates are gearing up to provide additional input and farm bill recommendations. Throughout our homework phase and policy development process, we are grounded in our grassroots process. The listening phase with our members has already begun with several state associations holding or planning listening sessions and collecting direct feedback from growers.

We will be data driven in our efforts. NCGA has already commissioned and conducted a nationwide survey of grower members and non-members on the usage and views of risk management tools and conservation programs. Grower led Action Teams continue to hold discussions on programs and have sought out additional analysis that will be helpful in developing future priorities. We look forward to sharing with the Committee the results, lessons, and key findings of this work in the months ahead.

Next week, corn growers will gather in New Orleans at the annual Commodity Classic where growers will propose, debate, and vote on updates to our policies. Later this summer will we gather for a second "Corn Congress" session. We look forward to working with the Committee as NCGA develops more formal policy priorities throughout the year.

Program Evaluation

We understand that complexity of the farm economy and commodity programs require constant education of Members of Congress on the importance and structure of the safety net. There will also be important conversations and considerations regarding the ability to accurately explain and defend farm programs to growers, taxpayers, and other interests. NCGA will continue to highlight lessons we have learned from the past, including when some have the mistaken belief that commodity prices will always stay high.

Thank you to Representatives Cheri Bustos and Austin Scott for including corn growers in previous General Farm Commodities and Risk Management Subcommittee round table discussions on farm safety net programs. As the Committee continues oversight of USDA and evaluates the structure of safety net programs, we appreciate additional opportunities to provide feedback. Please do not hesitate to reach out for growers' perspectives at future hearings, listening sessions, roundtables, and farm tours.

In closing, NCGA recognizes the difficult task ahead for the Committee to develop the next farm bill. We understand that there will be continued budget challenges and varied approaches to confronting current issues impacting agriculture. We appreciate your consideration of our views regarding commodity programs and the need for producers to have access to effective risk management tools.

The CHAIRMAN. Thank you.

Ms. Ford, you may begin when you are ready.

STATEMENT OF JACLYN D. FORD, DELEGATE, NATIONAL COTTON COUNCIL, ALAPAHA, GA

Ms. FORD. Good morning. I am Jaclyn Dixon Ford, a cotton producer and ginner from Alapaha, Georgia. My family and I grow cotton, peanuts, corn, pecans, and raise cattle. I am also Vice President and Manager of my family's ginning operation. I am testifying today on behalf of the National Cotton Council, the central organization of the United States cotton industry, representing all seven segments.

U.S. cotton acres are expected to increase this year due to higher prices. Although cotton prices are stronger than in recent years, higher input prices and supply chain disruptions have resulted in significant increases in production costs. Most producers are ex-

pecting a 25 to 40 percent increase in costs, largely due to higher fertilizer and pesticide prices.

While demand for U.S. exports has been very strong in the 2021 marketing year, transportation and logistics issues continue to impact U.S. cotton shipments. An effective safety net for producers must consist of two key components. First, an effective commodity policy that provides either price or revenue protection for prolonged periods of low prices and depressed market conditions; second, a strong and fully accessible suite of crop insurance products that producers can purchase and tailor to their risk management needs.

The yearly election of either ARC or PLC in the 2018 Farm Bill has worked well for growers and should continue in future farm bills. In this farm bill, producers have overwhelmingly enrolled seed cotton base acres in the PLC program at over 90 percent annually. We know that ag markets are cyclical, and an effective safety net is imperative for the inevitable times of low prices. The Non-Recourse Marketing Assistance Loan Program for upland cotton remains a cornerstone of farm policy for our industry during times of both low and high prices. It is necessary for multiple industry segments to effectively market cotton and provide cash flow for producers. In periods of low prices, if growers choose to forego the marketing loan, they may receive a Loan Deficiency Payment representing the difference in the market price and the loan rate. This important component of the program should be retained.

Our industry is opposed to any further tightening of payment limits and program eligibility requirements. We believe these policies are already too restrictive, given the size and scale of production agriculture necessary to be competitive in today's global market. Artificially limiting benefits is a disincentive to economic efficiency and undermines the ability to compete with heavily subsidized foreign ag products.

The 2018 Farm Bill continued the ELS Program, Cotton Loan Program, as well as a provision to ensure U.S. Pima cotton remains competitive in international markets. The balance between the upland and Pima program is important to ensure that acreage is planted in response to market signals.

The stability of the U.S. textile industry in recent years and their expected future growth can be attributed to the continued benefits of the Economic Adjustment Assistance for Textile Mills. Considering the need to re-shore or near-shore manufacturing of critical goods and materials, a strong and robust U.S. textile industry is key. This industry is vital to produce many products for our defense industry and personal protection equipment, as highlighted during the COVID pandemic.

In recent years, Congress authorized several rounds of *ad hoc* disaster assistance. While we recognize the budgetary constraints, we believe the Committee should review options to include either a permanent disaster program in the upcoming farm bill, or seek policy options to increase insurance coverage levels that are cost effective for producers.

Since the passage of the 2018 Farm Bill, there have been several forms of *ad hoc* assistance provided outside of the farm bill. As Congress begins to plan the path forward for the next farm bill, I

urge the Committee to seek additional funding for this important legislation.

In closing, I encourage the Committee to write a farm bill that provides long-term stability for the future. There will be price declines from where we are today. There will be disasters that are larger than the essential assistance commodity programs and crop insurance provide. There will be trade disputes that wreak havoc on our export markets. The NCC looks forward to working with the Committee, ag organizations, and other stakeholders to develop and pass a new farm bill that will effectively address the needs of all commodities and all producers in all regions of the country.

Thank you for this opportunity, and I would be pleased to respond to any questions.

[The prepared statement of Ms. Ford follows:]

PREPARED STATEMENT OF JACLYN D. FORD, DELEGATE, NATIONAL COTTON COUNCIL,
ALAPAHA, GA

Introduction

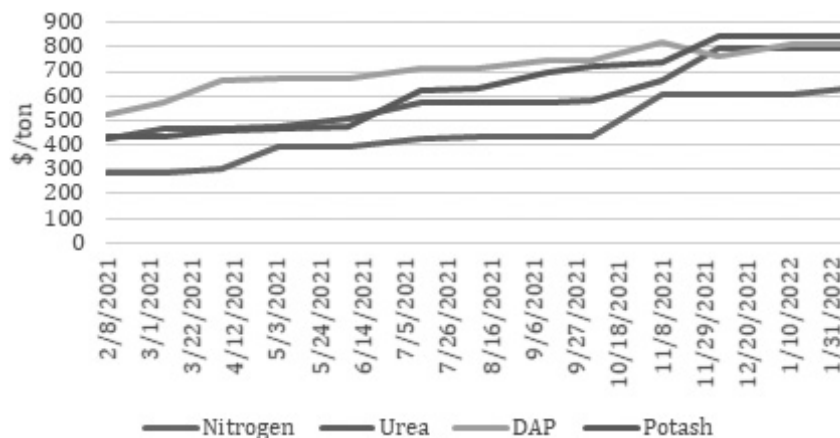
Good morning, I am Jaclyn Ford, a cotton producer and ginner from Alapaha, Georgia and serve as a delegate for the National Cotton Council. My family and I grow cotton, peanuts, corn, pecans and raise cattle in Berrien County. I am also Vice President and Chief Operating Officer of Dixon Gin Co., Inc. and serve as the company director of Commodities Marketing. Currently, I serve on the Georgia Economic Development Board and the Georgia Farm Bureau Commodities Committee for Cotton. I formerly served on the Georgia Farm Service Agency State Committee. In addition, I am serving as Vice Chair on the Board of Trustees for Abraham Baldwin Agricultural College, and on the Georgia Agribusiness Council Board, and the South Georgia Medical Center—Berrien Campus Authority.

The National Cotton Council (NCC) is the central organization of the United States cotton industry. Its members include producers, ginners, cottonseed processors and merchandizers, merchants, cooperatives, warehousemen, and textile manufacturers. A majority of the industry is concentrated in 17 cotton-producing states stretching from California to Virginia. U.S. cotton producers cultivate between 10 and 14 million acres of cotton with production averaging 12 to 20 million 480 lb bales annually. The downstream manufacturers of cotton apparel and home furnishings are in virtually every state. Farms and businesses directly involved in the production, distribution and processing of cotton employ more than 115,000 workers and produce direct business revenue of more than \$22 billion. Annual cotton production is valued at more than \$5.5 billion at the farm gate, the point at which the producer markets the crop. Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 265,000 workers with economic activity of almost \$75 billion. In addition to the cotton fiber, cottonseed products are used for livestock feed and cottonseed oil is used as an ingredient in food products as well as being a premium cooking oil.

Economic Overview

U.S. cotton acreage is expected to increase in 2022 due to higher prices. Recent estimates suggest that 2022 acreage could range from 12.0 to 12.7 million as compared to 11.2 million acres in 2021. Although planted acreage is expected to be higher than last year, unharvested acreage is also expected to be higher due to dry conditions in the Southwest. Acreage continues to decline in the West due to prolonged drought conditions and water availability issues.

Although cotton prices are higher than in recent years, higher input prices and supply chain disruptions have resulted in significant increases in production costs for 2022. Most producers are expecting a 25 to 40% increase in input costs in 2022, largely due to higher fertilizer and pesticide costs. As compared to a year ago, fertilizer prices have increased by 55–120% (*Figure 1*).

Figure 1. Fertilizer Prices

Source: USDA AMS.

World cotton demand remains strong and is projected to increase to almost 126.0 million bales for the 2022 marketing year, which represents an all-time high for cotton demand. While demand for U.S. exports has been very strong thus far in the 2021 marketing year, transportation and logistics issues continue to impact U.S. cotton shipments. The latest NCC estimate of U.S. exports for the 2021 marketing year is 13.8 million bales, which is 950 thousand bales below the February 2022 USDA estimate. The current supply chain challenges are adding economic stress to our merchandising segments that were still feeling the impacts of the sharp slowdown in demand when COVID shutdowns were at their peak. We continue to look for opportunities to assist these critical segments of the industry.

Safety Net Programs

While we are here today to talk about farm bill Title I programs, an effective safety net for producers must consist of two key components: (1) an effective commodity policy that provides either price or revenue protection to address prolonged periods of low prices and depressed market conditions that span multiple years; and (2) a strong and fully accessible suite of crop insurance products that producers can purchase to tailor their risk management to their specific needs to address yield and price volatility within the growing season.

The yearly producer election of either Agriculture Risk Coverage (ARC) or Price Loss Coverage (PLC) included in the 2018 Farm Bill has worked well for growers and should continue in future farm bills. Under the 2018 Farm Bill, producers have overwhelmingly enrolled seed cotton base acres in the PLC program, at over 90% annually. We know that agriculture markets are cyclical, and an effective safety net is imperative for the inevitable times of low prices. The combination of commodity program options and crop insurance gives farmers as well as their lenders the confidence entering planting season knowing that downside risk is mitigated in periods of steep price decline or a significant loss of production.

Upland Cotton Marketing Loan and Seed Cotton Loan

The non-recourse marketing loan program for upland cotton remains a cornerstone of farm policy for the U.S. cotton industry. While current prices are well above the loan rate, we know that will not always be the case. During times of low prices for U.S. cotton, the marketing loan program is an especially crucial tool for multiple segments of the cotton industry to effectively market cotton and provide cash flow for producers to meet financial obligations. Even in times of higher market prices, the marketing loan is utilized by the cotton industry to provide cash flow for producers and flexibility in marketing. One of the hallmarks of the marketing loan program is its function to ensure cotton flows through the marketing channels and encourages orderly marketing of the crop throughout the year. In recent years, over 50% of the upland cotton crop enters the loan and use of the loan approaches 80% when market prices drop. Also, in periods of low prices, if growers choose to forgo the marketing loan, they may receive a Loan Deficiency Payment (LDP) rep-

resenting the difference in the market price and the loan rate. This is an important component of the marketing loan program that should be retained.

Complete automation of the marketing loan program should be addressed in the next farm bill. During the December 2018 lapse in government funding, these programs were severely impacted due to the need for direct personnel involvement in portions of processing the entry and redemption of cotton in the marketing loan program. During this period, some growers were not able to enter cotton into the loan and access those funds, while others could not sell their cotton because they could not redeem the loan. We urge this Committee to work with USDA to provide the necessary support to ensure that any future lapse in government funding does not negatively impact the marketing loan program.

Another loan program that has been more utilized in recent years is the Seed Cotton Recourse Loan. Seed cotton recourse loans help upland and Extra Long Staple (ELS) cotton producers meet cash flow needs while waiting for their harvested cotton to be ginned so it is then marketable. Recourse loans also allow producers to store production at harvest and provide for a more orderly marketing of cotton throughout the year. Several factors such as the speed and efficiency of harvest operations and longer cotton ginning seasons have contributed to the increased use of this program.

Payment Limits and Program Eligibility

Our industry is opposed to any further tightening of payment limits and program eligibility requirements, as we believe these policies are already too burdensome and restrictive in light of the size and scale of production agriculture necessary to be competitive and viable in today's global market. The NCC has always maintained that effective farm policy must maximize participation without regard to farm size or income. Artificially limiting benefits is a disincentive to economic efficiency and undermines the ability to compete with heavily subsidized foreign agricultural products. Artificially limited benefits are also incompatible with a market-oriented farm policy. In fact, the current program limits are incompatible with the cost structure and capital investments necessary for today's family farms. We are encouraged that Congress has recognized this reality in recent disaster assistance that included increased payment limit levels to help account for more of the losses incurred. This same consideration should be given to Title I program limits when the next farm bill is being developed. Other proposed arbitrary restrictions regarding the contribution of management and labor through changes to the definition of 'actively engaged' are out of touch with today's reality on most farming operations and would only contribute to inefficiencies.

Extra Long Staple Cotton Policies

There are important policies in place for Extra Long Staple (ELS) or Pima cotton as well. The 2018 Farm Bill continued the ELS cotton loan program as well as a competitiveness provision to ensure U.S. Pima cotton remains competitive in international markets. The balance between the upland and Pima programs is important to ensure that acreage is planted in response to market signals.

Economic Adjustment Assistance for Textile Mills

After a decade of experiencing a precipitous decline in the amount of cotton used by U.S. textile mills, U.S. mill consumption has stabilized since 2008 due to ongoing assistance provided in the farm bill.

The recent years of stability and expected future growth can be attributed to the continued benefits of the Economic Adjustment Assistance for Textile Mills (EAATM), originally authorized in the 2008 Farm Bill. Recipients must agree to invest the proceeds in equipment and manufacturing plants, including construction of new facilities as well as modernization and expansion of existing facilities. EAATM funds have allowed investments in new equipment and technology, thus allowing companies to reduce costs, increase efficiency and become more competitive. By allowing U.S. textile mills to make the new investments necessary to remain competitive, the program supports a manufacturing base that brings jobs to U.S. workers. Furthermore, in the current global environment and the need to re-shore or near-shore manufacturing of critical goods and materials, having a strong and robust U.S. textile manufacturing sector is key to produce many products for our defense industry and personal protection equipment (PPE) as highlighted during the COVID pandemic.

Disaster Programs

In recent years, Congress authorized several rounds of *ad hoc* disaster assistance in response to hurricanes, wildfires, wind events, drought, and other natural disasters. While *ad hoc* disaster assistance has been extremely helpful to farmers and

allowed many of them to remain in business, they are never timely. The most recent disaster assistance was passed by Congress in September of last year and unfortunately USDA has yet to unveil most details of the program so crop producers can begin to apply for the assistance for disaster losses in 2020 and/or 2021. While it is helpful to know that assistance is coming, it makes planning for the next crop year extremely difficult for growers and lenders alike. While we recognize the budgetary constraints, we believe the Committee should review options to include either a permanent disaster assistance program in the upcoming farm bill or seek policy options to help further minimize the deductible producers are left to cover with most existing, affordable crop insurance products.

Farm Bill Resources

Since the passage of the 2018 Farm Bill there have been several forms of other *ad hoc* assistance provided to the agriculture industry outside of the farm bill construct. Whether it is disaster assistance with WHIP/WHIP+, the Market Facilitation Program (MFP) or COVID pandemic relief (CFAP), two things are certain: they all were necessary for various regions and commodities and they were separate from the farm bill because the existing policies and programs were not fully meeting the extraordinary and unpredictable need. As Congress begins to plan the path forward for the 2023 Farm Bill, I urge you to seek additional funding for this important legislation. The dynamics faced by the agriculture industry continue to change, evolve, and become more volatile. With those changes, America's farmers need a farm bill that has the resources to ensure that the American people and the world have a safe and affordable supply of food and fiber.

Conclusion

In closing, I encourage the Committee to write a farm bill that provides long-term stability for the future. There will be price declines from where they are today, there will be natural disasters with losses more severe than the essential assistance that commodity programs and crop insurance can respond to, and there will be trade disputes that can wreak havoc on our export markets.

The NCC looks forward to working with the Committee and all commodity and farm organizations and other stakeholders to develop and pass a new farm bill that effectively addresses the needs of all commodities and all producers in all regions of the country.

Thank you for this opportunity, and I would be pleased to respond to any questions.

The CHAIRMAN. Thank you, Ms. Ford.

And now, Ms. Ulibarri, please begin when you are ready.

STATEMENT OF VERITY ULIBARRI, MEMBER, FARM BILL ADVISORY COMMITTEE, NATIONAL SORGHUM PRODUCERS, MELROSE, NM

Ms. ULIBARRI. Good morning. Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee for the opportunity to speak to the Committee today. My name is Verity Ulibarri. I am a fifth-generation diversified farmer from Melrose, New Mexico, on the east central side of the state. I have been a member of the National Sorghum Producers for more than 10 years.

The climate in my region necessitates being very conscientious about the crops we grow, as we are very limited in the amount of rainfall we receive each year. The 20 year average for rainfall in my county is just under 16", and in 2020, we saw a record low of only 6.7" of rain in an entire year. The innate drought tolerance of sorghum as a resource-conserving crop makes it an excellent fit for my operation.

Just as the harsh climate in eastern New Mexico requires me to carefully consider the optimal crops to plant each year, it also requires me to take steps to mitigate my risk. This is where Title I becomes incredibly important, not just to me, but all farmers and

ranchers across the country, as we are seeing increasingly erratic weather patterns: longer and more extreme droughts in some regions, and more frequent flooding in other areas. The farm safety net and robust crop insurance that helps farmers adequately mitigate risk and volatility becomes vital to the sustainability and continuation of family farms.

We are thankful for the support provided by crop insurance. It continues to be the cornerstone of the modern safety net, and we appreciate all the work that has been done to defend and strengthen it. From a sorghum standpoint, there is still much work to be done in this area. Due to the nature of the program, drought tolerant, resource conserving crops like sorghum are not rewarded, but instead penalized, rated such that insurance for competing crops is more affordable. We worked closely with the Committee in the last farm bill to address this issue, and continue to work closely with RMA.

Due to the leadership of this Committee during the 2018 Farm Bill, we have had the opportunity to collaborate with RMA on a study paving the way for an irrigated insurance product that enables sorghum farmers to insure sorghum at higher yield levels and for less premium. Many irrigated farmers on the Western Plains are facing significant declines in ground water availability, and transitioning some or all of their irrigated acres to sorghum enables them to use water much more efficiently. However, under current yield and rating structures, most existing and perspective sorghum farmers actually face a penalty. Given the collaboration with RMA, we are optimistic that new options will be available for the 2023 crop year.

On Title I specifically, the changes to the ARC and PLC programs have been positive overall. Farmers in the sorghum belt use PLC more extensively than ARC, but for those that do use ARC, the new formula has been helpful. The change to the way in which the reference price is calculated was also a very positive development, as it makes reference prices more reflective of price and cost realities. However, given the level to which prices and costs have increased, and the speed with which this has occurred, PLC reference prices are now too low. The same situation is true in marketing loans, which remain an important cash flow tool for our farmers, but are now much too low relative to current risk.

We believe reference prices and marketing loan rates must be adjusted upward to remain relevant, and would urge the Committee to consider an index or inflator tied to fuel and fertilizer prices, as U.S. farmers need to maintain their productivity through such turbulent times.

Allowing an annual choice between ARC and PLC has also been a welcome change, and our farmers greatly appreciated the opportunity to update base acres. However, these now routine activities combined with existing program and the growing complexity of these programs sheds new light on the importance of staffing at FSA. Delivering these programs well requires resources, staff members that can actually go into the office and work with farmers. FSA programs will continue to be a key component of the farm safety net, so we encourage additional resources for FSA to deliver these programs.

Thank you for the opportunity to offer a firsthand account of how the existing farm bill Title I programs are functioning in the sorghum industry. I look forward to answering any questions you may for me today.

[The prepared statement of Ms. Ulibarri follows:]

PREPARED STATEMENT OF VERITY ULIBARRI, MEMBER, FARM BILL ADVISORY COMMITTEE, NATIONAL SORGHUM PRODUCERS, MELROSE, NM

Thank you, Chairman Scott and Ranking Member Thompson, for the opportunity to speak to the Committee today. My name is Verity Ulibarri, and I am a fifth-generation diversified farmer from Melrose, New Mexico, on the eastern central side of the state and have been a member of National Sorghum Producers for more than 10 years. The climate in my region necessitates being very conscientious about the crops we grow, as we are very limited on the amount of rainfall we receive each year. The 20 year average for rainfall in my county is just under 16", and in 2020 we saw a record-low of only 6.7" of rain for the entire year. The innate drought-tolerance of sorghum as The Resource-Conserving Crop™ make it an excellent fit for my operation.

Just as the harsh climate in eastern New Mexico requires me to carefully consider the optimal crops to plant each year, it also requires me to take steps to mitigate my risk. This is where Title [I] becomes incredibly important not just to me but all farmers and ranchers across the country. As we are seeing continuous erratic weather patterns—longer and more extreme droughts in some regions and more frequent flooding in other areas—the farm safety net and robust crop insurance program that helps farmers adequately mitigate risk and volatility becomes vital to the sustainability and continuation of family farms. Similarly, the disaster funding provided at various times over the past few years has been instrumental to this end, and if funding is available, sorghum farmers would like to see a disaster-type program become permanent law.

We are thankful for the support provided by crop insurance. I know it is not "Title [I]," but it continues to be the cornerstone of the modern safety net, and we appreciate all the work that has been done to defend and strengthen it. From a sorghum standpoint, there is still much work to be done in this area. Due to the nature of the program, drought-tolerant, resource-conserving crops like sorghum are not rewarded but instead punished—rated such that insurance for competing crops is more affordable. We worked closely with the Committee in the last farm bill to address this issue, and continue to work closely with RMA. However, we still have a long way to go in providing real solutions to farmers.

Due to the leadership of this Committee during the 2018 Farm Bill, we have had the opportunity to collaborate with RMA on a study paving the way for an irrigated insurance product that enables sorghum farmers to insure sorghum at higher yield levels and for less premium. Many irrigated farmers on the western plains are facing significant declines in groundwater availability, and transitioning some or all of their irrigated acres to sorghum enables them to use water much more efficiently. However, under current yield and rating structures, most existing and prospective sorghum farmers actually face a penalty. Collaborating with RMA, we are optimistic a new option will be available for the 2023 crop year.

On Title [I] specifically, the changes to the ARC and PLC programs have been positive overall. Farmers in the Sorghum Belt use PLC more extensively than ARC, but for those that do use ARC, the new formula has been helpful. The change to the way in which the reference price is calculated was also a very positive development as it makes reference prices more reflective of price and cost realities. However, given the level to which prices and costs have increased and the speed with which this has occurred, PLC reference prices are now too low. The same situation is true of marketing loans, which remain an important cash flow tool for our farmers but are now much too low relative to current risk. We believe reference prices and marketing loan rates must be adjusted upward to remain relevant, and would urge the Committee to consider an index or more aggressive inflator tied to fuel and fertilizer prices as U.S. farmers need to maintain their productivity through such turbulent times.

The CHAIRMAN. Thank you very much.
And now, Mr. Coleman, please begin when you are ready.

STATEMENT OF CLARK COLEMAN, BISMARCK, ND; ON BEHALF OF NATIONAL SUNFLOWER ASSOCIATION, NATIONAL BARLEY GROWERS ASSOCIATION, U.S. CANOLA ASSOCIATION, AND USA DRY PEA AND LENTIL COUNCIL

Mr. COLEMAN. Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. My name is Clark Coleman and I am a fourth-generation farmer from Bismarck, North Dakota. This year, I will plant ten different crops, including confection oil sunflowers, malting barley, canola, yellow peas, soybeans, grain and silage corn, spring wheat, Durum, and we calve out 600 head of cows. This crop diversity is not uncommon in the northern tier, where many farmers typically grow at least four or five different crops every year. I am past President and Chairman of the National Sunflower Association, and still serve on the National Sunflower Board. I will also speak today on behalf of the National Barley Growers Association, the U.S. Canola Association, the U.S. Dry Pea and Lentil Council. I will share perspectives on Title I program elections and dynamics for crops and the relationship of the reference prices to their market prices.

Overall, the Title I programs along with the crop insurance programs are the backbone of most important factors in the stability of our operation. Without them, it would be difficult or impossible to get financing from a credible lender for my seed, fertilizer, and other production input costs, which are experiencing significant increases this year.

The Title I programs are largely working as they were intended for my farm and for my crops that I produce. The options and flexibility provided under the 2018 Farm Bill allows producers to choose between ARC and PLC program options on a farm-by-farm and crop-by-crop basis. This has given the farmers the latitude to develop protection plans that best fit their operations.

The policy decoupling farm program payments from planting continues to work well, providing planting flexibility by tying income or revenue protection to recent historical base acres, rather than current year crop plantings has allowed farmers to respond to market signals rather than the prospect of receiving government payments.

As a producer of multiple crops, it is fundamentally important that my decisions are based on market signals. The Title I programs are serving as a safety net, not a market driver. The reference prices established in the 2018 Farm Bill for crops that I grow were reflective of the market for the first few years; however, the dynamic may be changing as we are experiencing a surge in prices of fertilizers and other inputs that significantly increase the production costs and risks.

I would like to take this opportunity to note that the current issues with input supplies and prices highlights the need to promote domestic fertilizer and chemical manufacturing. This should be considered a food security and national security issue and should be a focus of any efforts to make our supply chains more resilient.

For sunflowers, PLC program has been primarily used by producers, but ARC also has been used. Oil-type sunflowers are currently at \$33, and confections over \$40 per hundredweight. Last

year at this time, oil-type sunflowers were \$21.60 and confections were \$26.80 per hundredweight. The reference prices for the other oilseed categories under the current farm bill is \$20.15 per hundredweight. This reference price level, like others, has been unchanged since 2014. At this price, the other oilseed marketing loan rate at \$10.19 per hundredweight is not used very often, unless it is for cash flow. The same is true for loan rates for all the crops that I grow. If market prices move to the loan rates for these crops, it would be difficult to recover costs.

For barley, PLC has been the primary program election with a small amount of ARC payments. The barley reference price is \$4.95 per bushel, and production contracts for malting barley were in the \$6 range in 2020 and 2021, and barley prices are currently at the \$7 to \$8 range.

For canola, PLC has been the choice with very little under ARC. Canola prices this year have been in the range from 30¢ to 38¢ per hundredweight, while the reference price for other oilseeds is \$20.15 per hundredweight.

The pulse crops, dry peas, lentils, and chickpeas, have been primarily covered by PLC. Over the past several years, prices of pulses have experienced significant swings from low levels due to tariffs and disruptions in key markets to upward spikes in 2020. Unfortunately, the supply chain disruptions have prevented the pulse product producers from capitalizing on current high prices.

The reference prices for dry peas is 11¢ per pound, lentils and small chickpeas are 19¢ per pound, and large chickpeas is 21¢ per pound. The reference price for large chickpeas established in the 2018 Farm Bill did not reflect the average market price for Olympic and average market prices at the time, and it does not reflect the current average price. The inadequate reference prices combined with the current historic highs for input expenses is a primary farm bill concern for us pulse producers.

I want to take this opportunity to offer my perspective on the FSA offices and staff that administer and implement the farm programs. Staff vacancies and shortages in FSA offices is a significant and growing concern for producers. Retirements and workloads have resulted in lots of experience leaving the organization. The larger counties of western states require separate county offices for ease of access, personal service, and best execution of programs. We need more FSA resources, not consolidated offices.

In closing, I would reiterate the existing farm program structure that provides growers with the farm-by-farm, crop-by-crop options, and planting flexibility through de-coupling are working well. The ARC and PLC programs and reference prices have been working as intended, but adjustments may be needed to adjust to emerging dynamics. I hope the stability and certainty of the farm safety net that the Title I and crop insurance program represent remain the top priority and driving force in the timely reauthorization of the bipartisan farm bill of 2023. Farmers as well as consumers that rely on the food we produce are facing lots of challenges and uncertainty. Additional instability and uncertainty in the farm safety net and our food production system is the last thing we need.

Thank you again for the opportunity to participate.

[The prepared statement of Mr. Coleman follows:]

PREPARED STATEMENT OF CLARK COLEMAN, BISMARCK, ND; ON BEHALF OF NATIONAL SUNFLOWER ASSOCIATION, NATIONAL BARLEY GROWERS ASSOCIATION, U.S. CANOLA ASSOCIATION, AND USA DRY PEA AND LENTIL COUNCIL

Chairman Scott, Ranking Member Thompson, and Members of the Committee,

My name is Clark Coleman and I am a farmer from Bismarck, North Dakota. This year I will plant ten different crops, including confection and oil sunflowers, malting barley, canola, yellow peas, soybeans, grain and silage corn, spring wheat and Durum wheat. This crop diversity is not uncommon in the northern tier, where many farms typically grow at least four or five different crops every year.

I am a past President and Chairman of the National Sunflower Association and still serve on the National Sunflower board. I will also speak today on behalf of the National Barley Growers Association, U.S. Canola Association, and USA Dry Pea & Lentil Council.

I will share perspectives on the Title I farm program elections and dynamics for the crops that I grow and the relationship of their reference prices to their market prices.

Overall, the Title I programs, along with the crop insurance program, are the backbone and most important factors in the stability of my operation. Without them it would be difficult or impossible to get financing from a credible lender for my seed, fertilizer and other production input costs—which are experiencing significant increases this year.

The Title I programs are largely working as they were intended for my farm and for the crops that I produce. The options and flexibility provided under the 2018 Farm Bill allows producers to choose between the ARC and PLC program options on a farm-by-farm and crop-by-crop basis. This has given farmers the latitude to develop protection plans that best fit their operations.

The policy of decoupling farm program payments from plantings continues to work well. Providing planting flexibility by tying income or revenue protection to recent historical base acres rather than current-year crop plantings has allowed farmers to respond to market signals rather than the prospect of receiving government payments. As a producer of multiple crops, it is fundamentally important that my decisions are based on market signals. The Title I programs are serving as a safety net, not a market driver.

The reference prices established in the 2018 Farm Bill for the crops that I grow were reflective of the market for the first few years. However, that dynamic may be changing as we are experiencing a surge in the prices of fertilizer and other inputs that will significantly increase production costs and risks.

I would like to take this opportunity to note that the current issues with input supplies and prices highlights the need to promote domestic fertilizer and chemical manufacturing. This should be considered a food security and national security issue and should be a focus of any efforts to make our supply chains more resilient.

For **sunflowers**, the PLC program has been primarily utilized by producers, but ARC has also been used.

Oil type sunflowers are currently over \$33, and confections over \$40 per cwt. *Note: Oil sunflowers provide sunflower oil for the food ingredient market, while confection sunflowers are what you eat as a snack, especially baseball players and fans at sporting events!* Last year at this time, oil type sunflowers were at \$21.60, and confections were \$26.80 per cwt. The reference price for the other oilseeds category under the current farm bill is \$20.15 per cwt. This reference price level, like others, has been unchanged since the 2014 Farm Bill.

At these prices, the other oilseed marketing loan rate of \$10.19 per cwt is not used very often, unless it is for cash flow. The same is true of the loan rates for all of the crops that I grow. If market prices moved to the loan rates for these crops, it would be difficult to recover costs.

For **barley**, PLC has been the primary program election, with a small amount of ARC payments

The barley reference price is \$4.95/bushel and production contracts for malting barley were in the \$6 range in 2020 & 2021 and barley prices are currently in the \$7–\$8 range.

For **canola**, PLC has been the choice, with very little under ARC

Canola prices this year have been in the range of \$30 to \$38 per cwt while the reference price for canola/other oilseeds is \$20.15 per cwt.

The **pulse crops**—dry peas, lentils, and chickpeas—have all been primarily covered by PLC.

Over the past several years, prices for pulses have experienced significant swings from low levels due to tariffs and disruptions in key markets to upward spikes since

2020. Unfortunately, the supply chain disruptions have prevented pulse producers from capitalizing on the current high prices.

The Reference price for Dry peas is \$0.11 per pound, Lentils and Small Chickpeas is \$0.19 per pound and Large Chickpeas is \$0.21 per pound. The reference price for Large Chickpeas established in the 2018 Farm Bill did not reflect the average market price or the Olympic Average market price at that time and it does not reflect the current average price. The inadequate reference prices combined with the current historic highs for input expenses is a primary farm bill concern for pulse producers.

I want to take this opportunity to offer my perspectives on the FSA offices and staff that administer and implement the farm programs. Staff vacancies and shortages in FSA offices is a significant and growing concern for producers. Retirements and workloads have resulted in lots of experience leaving the organization. The larger counties of western states require separate county offices for ease of access, personal service and the best execution of programs. We need more FSA resources, not consolidation of offices.

In closing, I would reiterate that the existing farm program structure that provides growers with farm-by-farm and crop-by-crop options and planting flexibility through decoupling are working well. The ARC and PLC programs and the reference prices have been working as intended, but adjustments may be needed to address emerging dynamics.

I hope that the stability and certainty of the farm safety net that the Title I and crop insurance programs represent will remain the top priority and driving force in the timely reauthorization of a *bipartisan* Farm Bill in 2023. Farmers, as well as consumers that rely on the food we produce, are facing a lot of challenges and uncertainty. Additional instability and uncertainty in the farm safety net and our food production system is the last thing we need.

Thank you again for the opportunity to participate in this hearing.

The CHAIRMAN. Thank you.

Ms. James, you are now recognized for 5 minutes.

STATEMENT OF JENNIFER JAMES, MEMBER, BOARD OF DIRECTORS, USA RICE, NEWPORT, AR

Ms. JAMES. Good morning, and thank you.

As a fourth-generation rice farmer from Newport, Arkansas, I am honored to provide my testimony on behalf of the USA Rice Federation, the only farmer-led rice organization that advocates in the best interest of every farmer in the country, along with our meal merchant and allied members.

While I am a rice farmer first, my family farm is diversified, growing rice as well as corn and soybeans, while providing many acres of over winter habitat for migrating waterfowl every year.

U.S. rice farmers harvest 20 billion pounds of rice grown on 3 million acres of sustainably managed farmland, creating tens of thousands of jobs and billions of dollars in economic activity. Half of our production is consumed domestically, while the other half is exported to more than 120 countries around the globe.

U.S. rice farmers have long been committed to environmental stewardship, reducing greenhouse gas emissions by 41 percent, cutting our water usage in half, and decreasing energy usage by 34 percent, all while increasing yields dramatically over the last few decades. We will always strive to be more efficient and explore new ways to reduce emissions.

But here is the key point for today's farm bill hearing. Farm families must be profitable to have the wherewithal to pursue these important environmental dividends. This Committee on a bipartisan basis has a long history of recognizing this, and working with farm families like mine to ensure our profitability and capacity can serve our natural resources. This hearing is timely and important

because Title I of the farm bill, the commodity title, is the cornerstone of the safety net for rice farm families. Other commodities might regard crop insurance as their primary safety net. We have worked hard to make crop insurance a more effective tool but have historically lagged behind other crops in terms of participation and coverage levels. Title I is our true safety net. It helps us compete in a global marketplace that is highly distorted with high and rising foreign subsidies, tariffs, and non-tariff barriers.

As you know, China was found to illegally have over-subsidized three crops, including rice, by \$100 billion in a year. It would take 10 years for farm bill spending on all U.S. commodities to reach that level. U.S. rice farmers simply can't compete without U.S. farm policy to help level the playing field. The fact is, Title I rice policy helps to ensure that more of the world's rice is produced sustainably in the U.S., following the highest environmental safety and labor standards in the world.

Price Loss Coverage has been the most effective option for rice, with 99 percent of long and medium grain rice producers electing it over ARC. Despite the success of PLC since 2014, it does not look sufficient given current economic conditions. Rice simply has not enjoyed the rallying prices that other crops are experiencing. According to USDA, the current market prices for corn, cotton, soybeans, and wheat are 50 percent, 84 percent, 77 percent, and 73 percent higher than in 2020, but rice prices are only up eight percent. Unfortunately, our prices have risen only to reduce the modest benefits provided by PLC. To illustrate, the PLC benefit to rice is down 75 percent from where it stood in 2019. The payment rate per pound for 2021 is projected to be about $\frac{1}{3}$ the rate it was last year.

Current PLC reference prices were established based on 2012 cost of production. They were still relevant when the 2014 Farm Bill was enacted. The Market Assistance Loan rate for rice has not been relevant for many years now. While production costs have risen since 2012, notwithstanding low prices, the increases pale in comparison to what we are seeing this year. The Ag and Food Policy Center at Texas A&M found that fertilizer prices on average are higher per acre for rice than feedgrains, cotton, and wheat. Everyone testifying here today and all the farmers we represent are paying too much for inputs, but rice is taking a disproportionate hit on this front while our crop prices continue to lag.

A recent rice-specific AFPC study of all variable input costs estimates rice farmers will lose over \$500 million this year due to these increases. Because of the combined conditions of low rice prices and accelerating input costs, rice farmers are in trouble.

Important steps can and should be taken to shore up the nation's rice farm families in the near-term, even before the next farm bill. That is why we sent a letter to Secretary Vilsack last week seeking relief and I would ask for your support of this request. We remain committed to working with you to strengthen the safety net in the next farm bill. Establishing and maintaining the safety net levels relevant to the economic times ought to be our primary consideration. This includes payment limitations and actively engaged rules that simply have not kept pace with the fast-changing times in ag. They are outdated, as evidenced by the hundreds of Members of

Congress on both sides of the aisle who wrote USDA expressing concerns that the limitations for CFAP didn't cover the enormous losses suffered. This Committee took steps, important steps in the right direction in the 2018 Farm Bill. We look forward to working with you to build on those achievements. Thank you.

[The prepared statement of Ms. James follows:]

PREPARED STATEMENT OF JENNIFER JAMES, MEMBER, BOARD OF DIRECTORS, USA RICE, NEWPORT, AR

Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. Thank you for the opportunity to testify before you today concerning the Commodity Title of the 2018 Farm Bill.

My name is Jennifer James, and I am a fourth-generation rice farmer from Newport, Arkansas.

While I consider myself a rice farmer first, our family farm is very diversified. I farm with my father and my husband, and we primarily grow rice and soybeans and corn as well as provide many acres of over-winter habitat for migrating waterfowl every year. As we have built the habitat in and around our fields my family enjoys watching the ducks, geese, bald and golden eagles, swans, deer and a variety of wildlife coexist with production agriculture.

I am proud to serve as the Chair of the USA Rice Federation's Sustainability Committee and as a member of the USA Rice Federation Board of Directors, USA Rice Farmers Board of Directors, the USA Rice Domestic Promotion Committee, the USA Rice Communications Committee, and the USA Rice Asia, Turkey Promotion Subcommittee.

I'm very proud to be the first woman ever elected to serve on the Board of Directors of Riceland Foods, Inc.—the largest miller and marketer of rice in the United States. I'm also active on the state level and serve as vice chair of the Arkansas Rice Farmers Board of Directors, the Arkansas Ag Council Board of Directors, the Jackson County Farm Bureau Board of Directors, and the St. Louis Federal Reserve Bank Agribusiness Industry Council.

I'm truly grateful for having the opportunity to grow up and now help lead our family farm and to help guide the U.S. rice industry in a way where farm families can continue doing what they love to do—feed the country and much of the world—while also excelling at being good stewards of the land and natural resources.

Rice farmers in the United States harvest roughly 20 billion pounds of rice grown on 3 million acres of sustainably managed farmland. About half is consumed here at home while the other half is exported to more than 120 countries around the globe.

Family farmers primarily in six major rice producing states, including Arkansas, California, Louisiana, Mississippi, Missouri, and Texas, produce about 85 percent of all the rice consumed domestically.

In addition to putting rice on grocery shelves, in restaurants, and on the dinner table and in creating tens of thousands of jobs and billions of dollars in economic activity, U.S. rice farmers have also long been committed to environmental stewardship which dates back generations, long before sustainability became a buzzword.

Our conservation goals have long been and continue to be to produce more rice while using less water, energy, and other inputs, improving water quality, air quality, and soil conservation, while enhancing wildlife habitat and supporting biodiversity.

In addition to sustaining \$3.5 billion in migratory waterfowl habitat, rice fields in the U.S. also support crawfish and yellow rails along the gulf coast and even salmon nurseries in California.

Moreover, within the last 4 decades, rice producers are proud to have reduced greenhouse gas emissions by 41 percent, cut our water usage in half, and decreased our energy usage by 34 percent.

Although U.S. agriculture contributes less than ten percent to U.S. greenhouse gas emissions and, on a net basis eliminates more greenhouse gasses than it produces, with farmers, ranchers, and foresters removing some 72 million metric tons of CO₂ equivalent in 2017 alone, we are eager to partner with the Department of Agriculture to do even more.

One critical point to stress, however, is that farm families must be profitable in order to have the wherewithal to continue contributing these important conservation dividends.

And, it goes without saying that this Committee—on a bipartisan basis—has a long history of recognizing this fact and working alongside farm families just like mine to ensure their profitability and their capacity to protect and improve our land and natural resources.

This hearing is timely and important for rice farmers because title I of the farm bill—the Commodity Title—is the cornerstone of the safety net for rice farm families.

Rice farmers recognize and appreciate the fact that other commodity producers represented on this panel might regard crop insurance as their primary safety net, followed by the safety net provided under title I of the farm bill.

As rice farmers, we are certainly working to make crop insurance a more effective tool for our producers, but we have historically lagged well behind producers of other crops in terms of participation in crop insurance, coverage levels, and the like. This is because our growing conditions and perils are unique and the traditional policy that works so well for other crops does not work as well for us.

Title I of the farm bill is really our true safety net. It is what allows us to compete on a global playing field that is the most distorted of any sector due to high and rising foreign subsidies, tariffs, and non-tariff trade barriers.

Just to put things in perspective, China was found to have illegally over-subsidized just three crops—including rice—by \$100 billion in a single year. In comparison, it would take 10 years for farm bill spending on all U.S. commodities to reach that level.

In short, U.S. farm families cannot compete on such a distorted playing field without U.S. farm policy to help level the playing field. This policy not only helps U.S. farm families compete, but it also helps to ensure that more of the world's rice is produced in the United States, sustainably and under some of the highest environmental and labor standards anywhere.

In any case, the primary safety net that underpins U.S. rice farm families is Price Loss Coverage (PLC), with about 99 percent of all long grain and medium grain rice and anywhere from 68 percent to 76 percent of all Temperate Japonica rice enrolled under the PLC program.

This is in no way an indictment of the Agriculture Risk Coverage (ARC) program that may work better for producers of some other crops. We support what works best for each producer, crop, and region of the country.

But, for rice, the tool that has generally worked best is PLC, though there has also been at least some ARC participation by some of our producers.

Yet, despite the success of PLC in the years since its inception under the 2014 Farm Bill, this year's economic conditions are nullifying the effectiveness of this safety net.

How is this?

Well, first, rice simply is not experiencing the rally in prices that other crops are experiencing.

For example, according to the Economic Research Service, the current market prices for corn, cotton, soybeans, and wheat are respectively 53 percent, 86 percent, 54 percent, and 83 percent higher than in 2020 but rice prices are fairly static, up just eight percent.

As rice producers, we are thankful that our fellow producers are experiencing a rebound after 8 years of depressed prices, along with economic jolts due to trade wars and the pandemic.

We just wish rice prices were also rebounding right now. But unfortunately, our prices have risen only enough to reduce the benefits provided by PLC. To illustrate, the PLC benefit to rice is down 75 percent from where it stood in 2019. The payment rate per pound is projected to be about $\frac{1}{3}$ the rate it was just last year.

Exacerbating the economic problem facing rice producers is that the trade and pandemic relief provided to producers short-changed rice producers relative to the adverse economic impacts and losses we sustained.

These factors alone present significant hurdles for U.S. rice farm families.

But this year's skyrocketing input costs have compounded the rough economic picture for rice producers.

Again, to illustrate, PLC reference prices were established based on 2012 costs of production. They were still very relevant at the time of the enactment of the 2014 Farm Bill, although the Market Assistance Loan (MAL) rate for rice has not been relevant for many years now because it is set so low.

But, while production costs have risen since 2012 notwithstanding low prices, the increases pale by comparison to what we are seeing this year.

And, while these costs hit every farmer and rancher in the country, they are hitting rice disproportionately hard.

The Agricultural and Food Policy Center at Texas A&M found that fertilizer prices, on average, are up \$62.04 per acre for rice while fertilizer prices are up \$39.55 for feed grains, \$29.72 for cotton, and \$19.64 for wheat. These numbers have only worsened from the time the analysis was conducted earlier in the year. Every farmer on this panel today is paying too much for and all of the farmers that our organizations represent are paying too much for inputs, especially fertilizer, but rice is taking a disproportionate hit on this front even as our crop prices continue to lag.

Because of the combined conditions of low rice prices and accelerating input costs, rice farmers are in trouble.

As evidence of this, the value of rice production fell from \$3.2 billion in 2020 to \$2.9 billion in 2021, according to the Congressional Budget Office, although we expect that this is just the beginning unless conditions turn around soon.

We believe that important steps can be taken to shore up the nation's rice farm families in the near term. That's why USA Rice sent a letter to Secretary Vilsack last week seeking relief for rice farmers. I would ask for your support of our request in this time of real need.

However, we certainly believe that strengthening the farm safety net for rice in the context of the next farm bill will be imperative and we look forward to working with you to that end.

We believe that establishing and maintaining the safety net at levels relevant to the economic times ought to be a primary consideration in the next farm bill authorization.

Ninety-eight percent of farms in this country are family owned and operated. And, of the small percentage that are not considered a family farm by USDA, a large portion are still run by extended families, neighbors, and friends who decide they can cut costs and be more efficient if they team up to share equipment and divide up responsibilities on the farm.

Whatever their composition, these farms are all experiencing an astronomical rise in the stakes of what it takes to succeed in keeping a farm afloat.

Just as lenders have had to adjust how much they are willing to lend and what they will require as collateral in order to keep up with current conditions, so, too, must the farm bill's safety net adjust to the times, including relative to payment limitations and actively engaged rules that simply have not kept pace with fast changing times in agriculture.

They are outdated, as evidenced by the hundreds of Members of Congress on both sides of the political aisle who wrote to the Department of Agriculture expressing concerns that the limitations applied to pandemic and trade war relief simply do not cover the enormous losses suffered.

This reality led Members of Congress to pass more realistic program parameters in the context of the Wildfire Hurricane Indemnity Program Plus (WHIP+) for 2020 and 2021. I hope that Congress will take similar steps in the context of the next farm bill. For full time farm families, this is a remedy that is long overdue.

Farm policy rules can no more hold back market realities than auto or home mortgage lenders can expect to lend at loan levels set decades ago. It simply doesn't work.

The antidote to avoiding consolidation in agriculture and thus keeping farmers and ranchers independent and family owned is to ensure that the safety net works for regular full time farm families. If it doesn't, consolidation is absolutely inevitable.

On a bipartisan basis, you took some steps in the right direction in the 2018 Farm Bill and we are grateful to you for this. We look forward to working with you to build on these achievements.

Planting flexibility is extremely important to farmers, both economically and agronomically. Thankfully farmers have that planting flexibility now. We need to protect and preserve this feature of the farm bill.

However, even this simple principle has important wrinkles or details to be mindful of.

For instance, in the case of rice, it is absolutely vital to keep our infrastructure in place.

In the Commodity Title, we have a blend of coupled policies, such as the marketing loan, and decoupled policies, including PLC and ARC, with these latter programs tied to historical base acres.

Striking the right balance in this regard is essential not only with respect to these Commodity Title programs but also with other policies as well, including conservation programs tied to farming practices and crop insurance which attaches to planted acres. This issue comes into play even under the climate initiatives being announced by the Department.

From a rice perspective, if we were to lose so much acreage that the infrastructure could not be maintained, we would lose the U.S. rice industry—and once lost it would not come back. This is undoubtedly a concern for producers of other crops where infrastructure is unique to their crop industry.

The work you will do in this Committee to help achieve this balance is extremely important and I am grateful to have this chance to testify before you.

I am very appreciative of all the work that you have done in the past and are doing now to help farm families like mine carry on the important work we do for the country and for people around the world. Farming has been an honor of a lifetime for me and it means a lot that you would place such a value on the work that I love.

Again, thank you for the opportunity to visit with you about these issues of huge importance to farm families like mine.

JENNIFER JAMES.

ATTACHMENT

February 25, 2022

Hon. THOMAS J. VILSACK,
Secretary,
U.S. Department of Agriculture,
Washington, D.C.

Dear Secretary Vilsack:

Thank you for your work on behalf of America's farmers and ranchers. As you continue to develop and implement programs to provide assistance to the agriculture community, USA Rice can be counted on for open and direct dialogue with you and your staff about the needs of the rice farmers we represent.

As the Chairman of USA Rice Farmers, representing rice farmers in all major rice producing states, I am writing to respectfully request that you use the available authorities of the U.S. Department of Agriculture (USDA) to provide assistance to the nation's rice farmers who are facing both low commodity prices and disproportionately higher input costs, creating a severe financial squeeze that threatens the continued viability of U.S. rice farms and the rural communities they support.

Unlike other major crops, rice has not seen a recovery in prices and while all in agriculture are experiencing volatile input costs, the increase of input costs for rice vastly exceeds that of other crops. These twin conditions are threatening U.S. rice farmers' potential for profitability and puts rice at a significant competitive disadvantage when farmers are faced with financial decisions. This poses a very real danger to rice's unique infrastructure that is needed to maintain the domestic industry. Once this infrastructure is lost, it would be extremely difficult to re-establish. Producers of all crops are feeling the pressure of escalating input costs, but I believe it is important that I highlight the unique impacts on rice.

Commodity prices for rice have simply not kept pace with other major crops whose prices are much higher than they were in 2020. Compared to 2020 prices recorded by the Economic Research Service (ERS), the current market price for corn is 53 percent higher, the price of cotton is 86 percent higher, the price of soybeans is 54 percent higher, and the price of wheat is 83 percent higher, but current rice prices are relatively static since 2020, up just eight percent.

Similarly, the rise in input costs have hit rice farmers disproportionately hard. The Agricultural and Food Policy Center (AFPC) at Texas A&M University recently conducted a broad study to analyze the impact the increase in input costs is having on its representative farms. AFPC's study looked specifically at the increase in fertilizer prices and found rice farms would suffer most—a \$62.04 average per acre increase compared to \$39.55 for feedgrain, \$29.72 for cotton, and \$19.64 for wheat farms. More recently, AFPC conducted a more specific rice study looking at all variable input costs and found a weighted average per acre increase of \$174.20 for the 2022 crop year when compared to 2021. If rice planted acres in 2022 are on average with the past 5 years, these increases for inputs coupled with flat prices would result in a \$504.9 million loss to rice farmers.

The slight increase in rice prices that have been seen will be more than offset by lower Agricultural Risk Coverage (ARC) or Price Loss Coverage (PLC) program assistance. The PLC payment rate for long grain rice was \$0.014/lb. in 2020. In 2021, the PLC payment rate for long grain rice is expected to be \$0.005, roughly 1/3 of the previous year's payment rate. The Congressional Budget Office (CBO) estimates that total rice PLC payments declined from \$604 million in FY 2020 to \$382 million in FY 2021. This downward trend is expected to continue with current projections

for FY 2022 at \$272 million and expected support for the 2022 crop year falling to \$93 million. PLC has provided some assistance to our producers competing with heavily subsidized and protected foreign producers of rice but, unfortunately the support has not kept pace with the level of support that foreign rice producers enjoy, and it isn't equipped to respond to a rapid increase in input costs. In the recent past, rice producers have also received less support under the Market Facilitation Program (MFP), the Coronavirus Food Assistance Program (CFAP), and the Pandemic Assistance for Producers (PAP) initiative. Rice producers received less than 0.5 percent of the total payments made by MFP, CFAP, and PAP.

Given the current economic condition of U.S. rice farms, it is easy to see why the value of rice production fell from \$3.2 billion in 2020 to \$2.9 billion in 2021, according to the July 2021 CBO report. Even if rice acres hold in 2022, the small increase in value of the crop will not come close to making up the losses felt by farm families from increased input costs and the erosion of PLC assistance.

As a whole, the U.S. rice sector contributes \$34 billion annually to the U.S. economy, stretching far beyond the farm gate and creating jobs and economic activity on main street. Rice-dependent rural communities throughout the country are being adversely impacted by the ongoing recession within the industry. This could ultimately have a devastating impact on elevators, mills, trucking companies, and other businesses dependent on rice production, which once lost, will not return, further exacerbating economic consequences on these communities and their citizens.

Last September, you announced that USDA was preparing to invest \$3 billion to address urgent challenges such as market disruptions that are impacting America's agricultural producers—rice farmers are facing these challenges. Whether through the funding for market disruptions or by utilizing residual funds available under *ad hoc* programs, relief is necessary to ensure rice farmers survive the combination of stagnant prices and high input costs.

In the past, you have taken bold steps to address particular, unique hardships faced by commodity and specialty crop producers, as well as many others. We very respectfully urge you to consider similar relief in the current case of rice.

Thank you for your consideration of this important request, as well as your commitment to U.S. agriculture and support for the health of rural America. We hope to have further discussions with you and your staff at your convenience. In the meantime, please direct any follow up to our request to Ben Mosely at bmosely@usarice.com or 571-217-2848.

Sincerely,



KIRK SATTERFIELD,
Chairman,
USA Rice Farmers.

The CHAIRMAN. Thank you.

And now, Ms. Rogers, please begin when you are ready.

**STATEMENT OF MEREDITH McNAIR ROGERS, CAMILLA, GA;
ON BEHALF OF U.S. PEANUT FEDERATION**

Ms. ROGERS. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to appear before you today as you review Title I of the 2018 Farm Bill. Today, I am representing the United States Peanut Federation, USPF.

USPF is comprised of the Southern Peanut Farmers Federation, the American Peanut Shellers Association, and the National Peanut Buying Points Association. I have been farming with my family in southwest Georgia for over 25 years. I currently farm in a family partnership with my husband, my parents, and my siblings. We primarily farm row crops, cotton, corn, peanuts, and some fresh sweet corn.

When I met with the General Farm Commodities and Risk Management Subcommittee early last fall, I spoke of increased input costs such as fertilizer and equipment. Since the Subcommittee's

roundtable last year, the Center for Rural Prosperity and Innovation at Abraham Baldwin Agricultural College in Tifton, Georgia, has completed its review of U.S. representative peanut farm data, covering all the peanut production regions. What we have learned from this most recent comprehensive data is that peanut growers are struggling to cover their cost of production. The representative farms demonstrate that a significant number of farmers are using the equity in their land and their 401(k). The 2021 representative farm update revealed the average expected peanut yield to be 4,760 pounds per acre. In a cash flow analysis, the 2021 cash flow was \$545.97 per ton. The projected 2022 peanut total cash flow cost to produce a ton of peanuts is estimated to be \$666.94. That is a 22 percent increase over the 2021 cost of production. We are in the process of working on our farm budget for our farm this year, and we have found that our expected increase to be very high. The fertilizer costs alone are over double what they were a year ago, and availability is becoming a problem.

In the 2002 Farm Bill, this Committee eliminated the peanut supply management program and established a new marketing loan program. Since the 2002 Farm Bill, peanut planted acres have increased by less than two percent, when compared to recent plantings. Yet in a review of this same time period, production has increased approximately 59 percent. Our industry's increase in production is due to an increase in peanut yields, which was approximately 52 percent when compared with the same time period.

Peanut butter drives demand for peanuts due to its inexpensive source of plant-based protein. Domestically, according to the National Peanut Board, demand reached 7.9 pounds per capita in 2021. This is a 37.6 percent increase when compared to demand in 2002, according to the Center for Rural Prosperity and Innovation.

Peanut growers, shellers, buying points support the Price Loss Coverage Program, the PLC, in the 2018 Farm Bill. Clearly, peanut growers are facing economic challenges as discussed previously. These challenges are not a result of the PLC structure, but it is important that the Committee periodically evaluate, as you are today, the cost of production that growers are facing and determine if the specifics of these programs are keeping pace with the changing economics growers are experiencing.

We do have a number of growers in specific regions that have produced peanuts for years but do not have access to the PLC program because they lack base acres. We know that the issue is not specific to peanuts, but we hope the Committee will work with commodity organizations to assist these producers.

In conclusion, the Federation believes the 2018 Farm Bill PLC program for peanuts has been effective for our farm families and the peanut industry. We do believe that the Committee should review the specifics of the 2018 Farm Bill in light of the unprecedented cost that the production farmers are facing in the future. While some may argue that the costs will recede to their previous levels once these recent events have subsided, it is my experience that these increased costs do not return to the original level.

Thank you so much for allowing me to participate today.

[The prepared statement of Ms. Rogers follows:]

PREPARED STATEMENT OF MEREDITH MCNAIR ROGERS, CAMILLA, GA; ON BEHALF OF
U.S. PEANUT FEDERATION

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to appear before you today as you review Title I of the 2018 Farm Bill. I appreciate the Committee's seeking producers' input on commodity programs and their impact on farms across the U.S. Today, I am representing the United States Peanut Federation (USPF). USPF is comprised of the Southern Peanut Farmers Federation, the American Peanut Shellers Association and the National Peanut Buying Points Association. The Southern Peanut Farmers Federation includes the peanut grower organizations in Georgia, Alabama, Florida and Mississippi.

I have been farming with my family in southwest Georgia for over 25 years. I graduated from the University of Georgia in 1991 with a Bachelor of Business Administration, and later received my Masters of Accountancy from the University of Georgia. I currently farm in a family partnership with my husband, parents, and siblings. Our partnership primarily farms row crops including peanuts, fresh sweet corn, cotton, and corn. We also have a herd of about 200 head of brood cattle. I grew up on this farm and am very pleased that I have had the opportunity to work and raise my children on the farm.

The COVID-19 pandemic and subsequent supply chain issues have impacted peanut growers. When I met with the General Farm Commodities and Risk Management Subcommittee early last fall, I spoke of increased input costs such as fertilizer and equipment. In addition, I shared with you the delays in equipment parts and repair. Since the Subcommittee's Roundtable last year, the Center for Rural Prosperity and Innovation at Abraham Baldwin Agricultural College in Tifton, Georgia has completed its review of U.S. Representative Peanut Farm data covering all the peanut production regions. These 22 peanut farms, from Virginia to New Mexico, have been reviewed for 21 years (2001-2022). What we have learned from this most recent, comprehensive data is that peanut growers have struggled to cover their cost of production. Farmers typically have three types of loans to cover their operation:

- Traditional operating loan
- Equipment loan
- Mortgage on the farm's land

Farmers who were not able to cover their loans during a crop season rolled those payments into their mortgage note. The representative farms demonstrate that a significant number of farmers are using their equity in the land and [401(k)].

The 2021 representative farm update revealed the average expected peanut yield to be 4,760 lbs. per acre. In a cash flow analysis, the 2021 total cash flow was \$545.97 per ton. The projected 2022 peanut total cash flow cost to produce a ton of peanuts is estimated to be \$666.94. This is approximately a 22% increase over the 2021 cost of production.

We are in the process of working on the farm budget for this year and have found our expected cost increases to be very high. The fertilizer costs are well over double as compared to last year and availability is a problem.

To fully understand peanut policy, we have to compare production prior to the 2002 Farm Bill to today. In the 2002 Farm Bill, this Committee eliminated the peanut supply/management program and established a new marketing loan program. Since the 2002 Farm Bill, peanut planted acres have increased by less than 2% when compared to recent plantings. Yet in a review of this same time period, production has increased approximately 59%. Our industry's increase in production is due to an increase in peanut yields which was approximately 52% when comparing the same time periods.

Peanut butter drives demand for peanuts due to it being an inexpensive source of plant based protein. Domestically, according to the National Peanut Board, demand reached 7.9 lbs. per capita in 2021. This is a 37.6% increase when compared to demand in 2002 according to the Center for Rural Prosperity and Innovation.

Peanut growers, shellers, and buying points support the Price Loss Coverage program (PLC) as provided in the 2018 Farm Bill. Our state grower organizations have conducted county and regional meetings in Georgia, Alabama, Florida and Mississippi, and growers support the PLC program. The structure of the program, a marketing assistance loan, reference price, and the current payment limit structure, allow not just growers, but also the industry to provide jobs and some level of economic stability to rural communities. Clearly, peanut growers are facing economic challenges as discussed previously. These challenges are not a result of the PLC structure, but it is important that the Committee periodically evaluate, as you are today, the costs of production that growers are facing and determine if the specifics

of these programs are keeping pace with the changing economics growers are experiencing.

Our industry partners, shellers and buying points, agree that the PLC program works for peanuts. Since the 2002 Farm Bill, the forfeiture rate for peanuts has been very low. In 2020, the rate was, for example, 0.166%.

We do have a number of growers, in specific regions, that have produced peanuts for years but do not have access to the PLC program because of a lack of base acres. We know that this issue is not specific to peanuts. We hope the Committee will work with commodity organizations to assist these producers.

The USPF supports maintaining crop insurance, but peanut growers have not seen the benefits, when compared to costs, as many other crops. Our state grower organizations have asked researchers to review the role of crop insurance for peanut producers. While crop insurance is considered the primary risk management tool for producers to recover from natural disasters and volatile market fluctuations, preliminary research indicates that the reliability of crop insurance as a safety net varies for many peanut producers when total operating costs for the farm are considered. In addition, peanut farmers do not have access to a futures market as other commodities. For our farm, we do not utilize crop insurance at a high level. The costs are too high for the coverage you receive on irrigated peanuts.

With regard to accessibility of U.S. Department of Agriculture programs, we support the continued web based program availability. As USDA offices are consolidated and staffing needs are an issue, it is important that farmers have access to programs online and that this accessibility is as straightforward as possible.

In conclusion, the Federation believes the 2018 Farm Bill PLC program for peanuts has been effective for farm families and the peanut industry. We do believe that the Committee should review the specifics of the 2018 Farm Bill in light of the unprecedented costs of production farmers are facing in the future. While some may argue that costs will recede to their previous levels once these recent events have subsided, my experience is that these increased costs do not return to their original level.

Thank you for allowing me to participate today.

The CHAIRMAN. Thank you, and thank all of you for your very outstanding testimonies.

And at this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us to get as many questions in as possible. Again, please keep your microphones muted until you are recognized in order to minimize background noise.

And now, I recognize myself for 5 minutes.

Ladies and gentlemen, my first question is asked because of this very disturbing and terrible, and quite honestly, evil activity that Russia is conducting in Ukraine, and the impact that it is having or could have on our agriculture industry. Our nation has the leading agriculture industry in the world, often referred to as the Bread Basket of the World. The Good Lord has blessed us in this country to be that leader.

But my concern is this. Rising inflation has had a substantial impact on both the prices of our commodities, as well as the input costs that farmers are facing. Things like fertilizer, several of you have mentioned that, and I believe that the Russia/Ukraine conflict will definitely exacerbate these conditions because Ukraine is a major exporter of raw materials, and a disruption in these exports will surely raise prices globally. And when input prices rise and support program prices remain the same, it is our farmers who will have to carry that cost.

And so, with that said, let me ask and start with you, Ms. James, and maybe others of you who may want to jump in here. Do you think that our commodity support programs like the Price Loss

Coverage Program which sets reference prices for commodities should be more responsive to economic conditions?

Ms. JAMES. Well, yes, sir, I do. I believe that your statement about inflation is a very important one, especially at this time. I believe that the inflation rate has grown about two percent a year for the past 10 years, but then we are at seven percent in this one last year. So, that is a considerable increase, although our reference prices have remained the same as you have stated.

The CHAIRMAN. We will come back to that, but I also want to call on Ms. Jaclyn Ford with the National Cotton Council.

Ms. Ford, thank you for your enlightening testimony. Can you talk about decisions that you expect cotton producers to make this year in terms of participation in ARC and PLC, as well as STAX and supplemental crop insurance products that are available for producers? There are some crop insurance products that are available only if they do not participate in ARC, and so, I realize that the dynamic effects that producer decision, it has a dynamic effect on their decisions. Can you shed some light on how these decisions are made?

Ms. FORD. Yes, sir. Our family this year will be participating in STAX rather than PLC, and we will be doing that at a lower level. It will be at a cost of about \$10 per acre. We just got sign-ups done this week, but cost is a determinant. Our input costs are so much more, so your cost per acre participating in the crop insurance programs will determine participation costs. So, if we can make that more affordable for the producers as far as participating, I think that would be a good thing.

But our cost per acre this year has gone up for cotton probably around 30 or 40 percent, so we are looking at an input cost of somewhere between probably \$900 to \$1,100 per acre right now since the Ukraine war, and right now cotton is trading at \$1.10, \$1.20. I haven't looked at it this morning. It was up a little bit, so right now we are at about a break even point at a 2 bale average. So yes, we certainly need some more support.

The CHAIRMAN. Well thank you for that, and Committee Members, we can all do without a lot of things, but we definitely cannot do without food, and it is our nation that provides that supply.

With that, Ranking Member, I will turn to you.

Mr. THOMPSON. Mr. Chairman, thank you very much, and thanks to each and every one of our witnesses today and your organizations that you are affiliated with for what you do for agriculture. Mr. Chairman, I appreciate your line of questioning and the responses. It is not so much, at this point, we can have record high commodity prices we are getting, but with inflation, it is the margin that matters. That is something we need to take into consideration.

Lately, there has been a lot of conversation surrounding agriculture and climate change, and these are conversations that I welcome as American agriculture has a great story to tell. And we got to get better at telling our story. But often, I hear questions about climate framed in a manner that asks how can we change the safety net or crop insurance to be more climate friendly? And I think that is looking at the problem completely the wrong way. Rather, we should be asking ourselves what can we do to make climate pol-

icy farmer friendly? American producers are the most efficient in the world. And if the goal is to reduce global greenhouse gas emissions, then the smartest thing we can do from a climate standpoint is, quite frankly, to have American farmers, ranchers, and foresters produce more and export it overseas. And the farm safety net is critical to helping our farmers manage risk year after year.

Now, for anyone who wants to jump in, can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint? I welcome anyone that wants to jump on that.

Dr. JOHANSSON. Well, thank you for that question, Ranking Member Thompson.

I had the privilege of chairing the Federal Crop Insurance Corporation Board of Directors previously when I was at USDA, and I do think that crop insurance needs to focus on providing risk management to farmers. The program obviously needs to be actuarially-sound based on principles of insurance. USDA can certainly work to incentivize producers to reduce or sequester greenhouse gases, but that is best addressed through conservation programs. And at least, that is by and large how USDA has proceeded thus far, with one exception maybe, the crop insurance discounts for planting cover crops.

But generally when it comes to the commodity title or crop insurance programs, USDA has properly stuck to the mission of those programs, and we certainly know that the increase in productivity in U.S. agriculture across all of our crops and the levels of efficiency seen on our farms have significantly reduced emissions per unit of output over time.

As I mentioned earlier, obviously the sugar program is critical to keeping U.S. sugar production viable for our growers. We have seen excessive subsidies provided by other countries to their sugar sector, which effectively guarantees surpluses are dumped on the global market. Moreover, the production in most of those countries does not meet the labor and environmental standards we have in the U.S.

So, weakening sugar policy and outsourcing more of our sugar production to heavily subsidized global sugar markets would undercut our supply chains, weaken national security, hurt the environment, and cost us family farms here in the U.S.

Thanks.

Mr. THOMPSON. Thank you.

Mr. Edgington, I saw you were going for your microphone.

Mr. EDGINGTON. Yes. So, from the National Corn Growers perspective, I listened to your question and I think about it in a couple different ways.

We have been this way for quite a while, the crop insurance is number one. It is our number one best risk management tool, and we need to continue with that. It is a vital piece. We are rolling out another—we have worked with RMA to do another one coming this year called PACE, which looks at split-nitrogen application, and if you can't get it on, is there a crop insurance piece to that? And there will be.

But we have also got—and we rolled it out last summer—our corn sustainability policies where we know by 2030 that we can improve things on land use efficiency, water quality, all of these over—there are four or five products up to 10, 15 percent, and maybe some of them beyond that. But that is a piece about conservation that we are working on, and it is about efficiencies and quality, and all of the dynamics that we do on a day-to-day basis.

We have corn all over the United States, and to talk about climate and risk management tools in the same package and has to be done this way, does not fit well with corn. It is tough to do the same thing in southern Texas as it is in northern Minnesota or in the State of Washington *versus* Maine, let alone central Iowa. And so, it is an area that we want to keep separate from the fact that risk management is *risk management*, conservation is *conservation*, and we are working very hard in both areas to improve and become more efficient as crop producers.

Mr. THOMPSON. Very good. I don't have much time left. Just an invitation. I would love to have future communications if you have thoughts that you could respond and provide those on that particular question, I think that would be very, very helpful as we work towards this next farm bill. Also, together we can tell the great story of American agriculture.

So, thank you so much, Mr. Chairman.

The CHAIRMAN. Thank you.

The gentleman from California, Mr. Costa, who is also the Chairman of the Subcommittee on Livestock and Foreign Agriculture, is recognized now for 5 minutes.

Mr. COSTA. Well, thank you very much, Mr. Chairman, for holding this important hearing as we begin to set this table for the reauthorization of next year's farm bill. I think it will be the fourth farm bill reauthorization that I have had the privilege to work on. And let me also commend you for your opening comments remembering and reflecting upon a life well lived in his service to our country, our colleague, Jim Hagedorn, a Member of my Subcommittee that we worked on together. Our thoughts and prayers are certainly with his family.

I say this time and time again as a farmer, a third generation. Food is a national security issue, and I think everyone on this Committee agrees that our responsibility is to ensure that American agriculture remains strong and vibrant, that Americans realize that incredible productive, nutritious food that they consume every night at their dinner table is a result of hard work by farmers, ranchers, dairymen and -women, and farmworkers. It is a partnership, and so we are very interested in your comments today about how we reset the stage. Obviously, the focus is Title I today. Obviously, there are other titles in the reauthorization of the farm bill that we are going to be clearly listening carefully to your recommendations in terms of modifications and changes.

Let me ask a specific question with our witness, Ms. Ford, on the National Cotton Council, and then I want to have a general question that you folks might want to think about with relationship to the lessons that we have learned in the last 2 years as a result of this pandemic, horrific pandemic in which over 900,000 Americans have lost their lives, in terms of the supply chain, and how we have

turned our very delicate and complicated food supply chain with four percent of the nation upside down, and how we address that as we move forward.

Ms. Ford, when we talk about cotton was added on Title I farm programs, you talked about the ARC, the Agriculture Risk Coverage and the Price Loss Programs that have worked for producers of seed cotton as compared to how upland was previously treated in Title I programs. Do you care to elaborate any further?

Ms. FORD. Well, this year with the prices being higher, I don't think a payment would not kick in, but it has worked in the past and it is more dependent on price than yield. And we use crop insurance for yield protection, but the PLCs work very well in the past for price protection.

Mr. COSTA. Well, and that is a good segue. I mean, I have crop insurance and farming, as we all know, is risky enough given the challenges we face. And as I told a previous President one time, I said, "Farmers are risk takers," and so, what lessons do you think we should be focused on? Crop insurance obviously is a vital part of our safety net, but what we ought to be thinking about in reauthorization next year's farm bill?

Ms. FORD. I think we need to be thinking about margins as well with the input costs. I think we have to look at margins and what the crops are costing us to produce, and not—

Mr. COSTA. The comment that I made previously, I said farmers are price takers, not price makers. Now, I have been involved in California for years, the leading agriculture state in the nation. You all nod your heads when I say farmers are price takers, not price makers, because you know what that means.

But how do we look forward in terms of not just the safety net of the insurance program and how we might improve it, but what other—I mean, we have the inflationary impacts that we are all dealing with, of course, and I am working very heavily on a bipartisan basis on this supply chain issue that we hope will relieve some of those inflationary pressures. But the fact is, is that American agriculture is challenged. Anyone care to opine?

Mr. DOYLE. I think it is important for us as farmers. We invest in creating demand for our crop, whatever it is. Farmer investment, we have check-offs that help do that. But, as a governing body, you give us the tools that we need to make us less risky. Our lenders that a lot of times young, new farmers don't have opportunities, don't have backing or assets, PLC, ARC, those give those lenders some type of assurance that, "Hey, we can finance this young grower and he could be less risky."

Mr. COSTA. My time has expired, but thank you, Mr. Chairman, and we will continue this conversation.

The CHAIRMAN. The gentleman from Georgia, Mr. Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman.

Mr. Edgington, I am going to come to you in just a second, but I want to go to what Ms. Ford and Ms. Rogers put in their testimony, because I want to talk to you about the letter that the National Corn Growers Association wrote to a company called Mosaic.

Ms. Ford and Ms. Rogers, in your testimonies that we have heard today here, you both mentioned increases in the cost of production. Ms. Ford, you referenced that most producers are expect-

ing 25 to 40 percent increases in inputs due to higher fertilizer and other costs. Fertilizer is the number one issue I hear back home.

Ms. Rogers, you note in your annual study on the peanut cost of production from the Center for Rural Prosperity and Innovation at Abraham Baldwin Agricultural College a significant spike in the cost of production for peanuts, a 22 percent increase in the cost to produce a ton of peanuts.

Now, Mr. Edgington, when we want to get down to the heart of things back home, sometimes we say it is time to shuck the corn. Your association wrote a letter to Mosaic because Mosaic had requested additional tariffs be placed on products that would compete with them. Is that correct?

Mr. EDGINGTON. That is correct. We have been in correspondence with Mosaic about their tariff application with the International Trade Commission. That is correct.

Mr. AUSTIN SCOTT of Georgia. I want to read you something. This is from this company's annual report to shareholders, and if I am not mistaken, they control about 80 percent of some of the markets, is that correct, inside of the United States?

Mr. EDGINGTON. They are currently at about that level on the finished product, yes.

Mr. AUSTIN SCOTT of Georgia. A monopoly. Full year revenues up 42 percent. Stronger pricing more than offset volumes. Gross margin up 200 percent. Adjusted earnings before income tax, a fiscal year record, up 129 percent. And I think that what Americans need to realize is the monopolization of the inputs in our food supply to our farmers is what is leading to the majority of the discussion right here. The input costs are going up faster than the markets can absorb them, and it is leading to a tremendous amount of food price increases.

Now, they requested the tariffs be put in place in February of 2021. Do those record profits sound to you like they would be coming from a company that actually needed protections from competition?

Mr. EDGINGTON. You mind if I don't answer that part of your question, but I would like to address part of the whole issue.

Mr. AUSTIN SCOTT of Georgia. Yes, sir.

Mr. EDGINGTON. Because we have been—I have been more involved in fertilizer than I thought I would maybe have to be, other than on my farm in this process. And one of the things we have learned in the process is they do not look at this table as their customer. They are selling to the CHS's and Growmark's of the world. That is their distributing network, and so, our pushback on Mosaic or CF Industries on nitrogen fertilizer has been a surprise to them, because we have never pushed back before because of the process and the engagements we have had.

Mosaic has had tremendous profits. Now, they have reasons that they tell us as to why they were competing against foreign countries subsidizing their fertilizer, and that is what they did. They represent about 55 percent of the phosphate rock inside of the United States, but they represent 80 percent of the DAP that we are applying to our fields. And so, when you have that type of control over the majority of the market, there becomes lots of discussion around the profits that they are making.

Mr. AUSTIN SCOTT of Georgia. If I may, this control is not limited to fertilizer, though. We are seeing increased monopolization, whether it be seed or any other type of input cost, and then what you see in some cases is like communist China where they stepped in and they bought Syngenta. And so, Mr. Chairman, we have a lot of work to do in making sure not only that foreign countries don't own our ag input supply, but that not any individual company inside America controls too much of our ag inputs. And if we could get that right, we would have significant competition in the input market and we would have more fair pricing to our farmers.

I am down to 8 seconds. With that, Mr. Chairman, I will yield.

The CHAIRMAN. Thank you.

And now, the gentlewoman from Ohio, Ms. Brown, is recognized for 5 minutes. Ms. Brown, you may be muted. Un-mute yourself.

Ms. BROWN. Thank you for that. I apologize. Chairman Scott, can you hear me now?

The CHAIRMAN. Yes, I can.

Ms. BROWN. Okay, good.

The CHAIRMAN. Go right ahead.

Ms. BROWN. All right, thank you and Ranking Member Thompson for holding this hearing today, and thank you all to the panelists for being here and offering your feedback on these important farm bill programs.

The business of farming is risky, and it is important to have smart safety net programs in place for when the unthinkable happens. It is also important for us to ensure that these programs are accessible to all farmers.

So, my question is the USDA has made several modernization efforts to make information and applying for these Title I programs more efficient. Mr. Coleman, can you talk about your producers' experience with using USDA's online tools and program application systems?

Mr. COLEMAN. Sure, I would be happy to talk a little bit about that.

The FSA offices have implemented programs where you can get a lot of the information and do it online, but it does get real complicated. These programs kind of overlap. I am very involved with EQIP and NAP and a lot of the programs there, and so sometimes it gets kind of confusing. That is probably the reason why I made the statement about being able to go into the office and talk to these people in person, and the staffing—have the staff in the building for them to work personally with a person, especially with me doing as many different crops as I do. It gets very complicated.

But the tools are there. The tools are there, and they are working. It is pretty complicated.

Ms. BROWN. Thank you for that.

USDA data has shown time and time again that Black farmers receive only a fraction of the farm subsidies that White farmers do. So, my question is most recently they released data showing that nearly all the funds provided to the farmers to offset impacts of COVID-19 went to White farmers.

Mr. Doyle and Ms. Berg, what are your organizations doing to support Black farmers and producers when it comes to Title I programs, and what could Congress do to address these disparities?

Mr. DOYLE. Thank you for the question. From our organization's standpoint, we have a new strategic plan in place. We reevaluated our policy and we have included diversity within our membership, encouraging membership as we are a membership and election type of board. We have brought in speakers on diversity, educating our membership just to let them know to be aware of that. We encourage youth. That is one way, minority colleges with the MANRRS program. We recently had them come in and speak to our board, and opportunities exist there. I am in the Mississippi River Delta and it is—farmers, we are—there are few of us. It is challenging sometimes just to get volunteers on our own board, regardless of their ethnicity.

So, just continue education including diversity. And Mr. Bridgeforth here is in the room, and I have actually been in an educational communication team with his brother, a farmer from northern Alabama, and Kyle and his family have done great things and we continue to reach out to families like his and others in Arkansas to make us aware of what we need to be doing in improving our association, representing all farmers within the United States.

Ms. BERG. At the National Association of Wheat Growers, I will be the second woman President ever in the Association's history. So, we have definitely been moving forward trying to get more minorities or anybody—we embrace them in our industry and for our association. So, we do look forward to working with anybody who would like to walk through the door with regard to minorities or anybody at all. We embrace it.

Ms. BROWN. Okay. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. Thank you.

The gentleman from Arkansas, Mr. Crawford, is recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman. I appreciate that. Thank you so much.

Ms. JAMES, I want to ask you a quick question first.

In your testimony, you noted that rice's current \$14 per hundredweight reference price was built off costs of production, but that was back in 2012. So, that is 10 years ago. I don't want to try and lock you in on what you think an appropriate number is today, given the fact that things are changing so fast in the ag economy, but I do want to ask you, quite straightforwardly, does \$14 per hundredweight reference price represent an adequate safety net for rice producers today, based on recent costs of production that you are seeing?

Ms. JAMES. Well, the easy answer is no, and unfortunately, our market prices are just above there, so we are kind of in a really tenuous situation right in rice. And as you know, there are only about 3 million acres of rice in our country. So, if rice farmers are not planting rice and producing rice, we stand to start seeing our infrastructure begin to erode and our mills and dryers not be profitable. Our American end-users who are buyers of domestic rice will then have to turn elsewhere. Food security is definitely an issue. So, keeping our rice farmers in business is very important, not only to the rice industry, but to American consumers.

Mr. CRAWFORD. Thank you. I appreciate that.

I appreciate the perspective of all of our producer representatives here today, because I think from the outside looking in, I have had this conversation with many of your colleagues and many farmers: historic prices. Prices and margins are two different things, so for people who don't play a role in ag policy but ultimately benefit from it, I think we need to get a little bit of perspective here because inflation hits everybody, it is certainly hitting production costs on the farm, and that is hitting you and your bottom line.

So, I think it is important that the American people recognize that if you are just looking at prices, you are not getting the full picture of what it takes to put food on the shelves, and that is exacerbated by supply chain issues that we are seeing, and then of course, as has been mentioned numerous times throughout this hearing thus far, what is taking place in Ukraine right in front of our eyes in real time and how that is impacting particularly, I would think, wheat is maybe the most volatile and vulnerable in this scenario. But I think all of you and your producers that you represent are vulnerable to what is taking place around the world, and I think one of the things that we can do to be more proactive in this equation is to turn back on our domestic energy production, and make us energy independent. Not only can we address our own needs, this addresses potentially the fertilizer issue that has come up—and I would like to associate myself with the comments of Mr. Austin Scott. But this also addresses our ability to be a net exporter, and actually help Europe and Ukraine in a more material way.

So, I hope that your producer groups are conveying that message as well. We certainly are here.

Let me shift gears and direct a question to Mr. Doyle. The Soy Belt, if you will, I guess, is largely associated with states like Iowa, Illinois, Missouri, Nebraska, and others. But Arkansas is actually home to considerable soybean production, and of course, that is where you live and where I live. I just kind of wanted to get you to provide a little bit of perspective on the soy growing region throughout the United States and kind of where some of the most active areas are.

Mr. DOYLE. So, yes, we are—if you could picture North Dakota down to Texas, over to Florida, and up to New York and back again, with the exception of West Virginia, that is where the 30 primary soybean growing areas are. Within that, you have about 65 percent that is shipped through the Gulf of Mexico down the Mississippi River. You have about 20, 25 percent that travels by rail from the northern states to the Pacific Northwest and are offloaded on the West Coast. And then you have some in Virginia nearby, and the Saint Lawrence Seaway is now being looked at as an alternative route for shipping due to the container shortage. So, it is about 3.1 million acres in Arkansas. I believe we are number nine.

Mr. CRAWFORD. It is interesting, and on the FFA seal, corn is represented there as universal, and that may be true, and all respect to our corn growers, but I would think soybeans are probably almost universal as well. Wouldn't you?

Mr. DOYLE. So, yes. We are shipping soybeans all over the world. It was primarily feedstock. Now the oil market is driving the price, and it is a great thing.

Mr. CRAWFORD. Excellent. I appreciate you being here.

Thank you, and I yield back.

The CHAIRMAN. The gentlewoman from New Hampshire, Ms. Kuster, is recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman, and thank you so much to our panel. I am excited to continue these discussions tracking the implementation of significant bipartisan wins in the 2018 Farm Bill, and also looking for ways to continue to sustain our farmers and foresters as we look ahead to the farm bill of 2023.

As we look at the commodity title, I did want to note how important dairy production programs are to my district. In 2018, I was proud to work with colleagues on both sides of the aisle to retool what is now the Dairy Margin Coverage Program. Dairy farmers had long been struggling with high feed costs and low milk prices that threatened the profit margins and survival of the many small family-run dairy farms in my district and across New England. That is especially true in our region where uniquely high transport costs for feeds were not factored into the Dairy Margin Coverage Program at that time. The DMC Program has made a tremendous difference in ensuring farmers can access reliable margin coverage and choose between options to ensure that they are securing the best coverage to fit their needs.

Despite this win, New England dairies continue to face significant challenges to their long-term viability. Producers are still struggling with the dramatic shift in the cheese market that have thrown off the Federal Milk Marketing Orders and undermined the price of other dairy products. Once again, the New England region is uniquely strained by this situation, and as the USDA continues to work on administrative upgrades to the DMC Program, small New England dairies remain under pressure to compete against large scale dairy operations in other parts of the country.

I believe there is much more we can do in the next farm bill to shore up our family dairy operations, and I hope future hearings in the commodity space will cover this topic.

But to shift gears, I am also interested in ensuring that all our producers, particularly small operations with limited time and resources can easily access USDA online tools and program applications. USDA grant and loan programs and insurance and price support programs are absolutely critical, but we in Congress need to enact policy that ensures that all producers have a realistically fair chance to participate.

Mr. Doyle, you briefly touched upon this point in your testimony. Could you talk about your producers' experience using USDA online tools and application systems, and what other steps would you urge Congress to take in the farm bill to ensure that small producers have as much easy access as possible?

Mr. DOYLE. So, thank you.

I guess COVID really put a lot of us back in our homes and our computers. That is where we work best from. Anything that we can do over the internet through the website on a calculator or sign up for a program without having to go to town to an office with the

restrictions in place, I think that is going to make us more efficient.

We also are concerned about cybersecurity. We know any time we put our information over the web that it is susceptible, so we want to make sure that all of the information is protected, but streamlining applications or data insertion, I think that is a great thing. Modernization of the system, FSA offices have often complained that they don't communicate well at the state level, county level, Federal level, so just making them all on the same system would make it easier, make it more efficient with less redundancy.

Ms. KUSTER. Great, thank you.

I have a little bit of time left if any of the other witnesses have any comment on the online applications and tools?

Ms. JAMES. I might just add that training and education back down to the county offices that can be administered with these farmers would be something good that we need to be sure and contribute, and rural internet is obviously an issue in most of our areas, so access is very important and having all of that in place. It takes time and training also, so that would be what I might add to the conversation.

Ms. KUSTER. Great, thank you so much. And we do understand the challenges of rural internet. That is a big issue in my district, and we are working on that. We have significant funding in the bipartisan infrastructure bill that has already gone through, and signed into law, and more to come.

Thank you, Mr. Chairman, and I yield back.

The CHAIRMAN. Thank you.

The gentlelady from Minnesota, Mrs. Fischbach, is recognized for 5 minutes.

Mrs. FISCHBACH. Well, thank you very much, Mr. Chairman. Usually I don't get to go this quickly so I am very happy today.

I just wanted to ask Dr. Johansson. You mentioned in your testimony the foreign market distortions as they relate to sugar production around the world, and as you know, I have large sugar production in my district. And when I talk to critics of the sugar program, they seem to fail to realize that weakening the program will put producers in my district and across the country at a competitive disadvantage around the world, simply because of the government distortions. Would the sugar program be needed if it weren't for these government distortions around the world?

Dr. JOHANSSON. First of all, that is a great question. Thanks so much for asking it, and yes, I had an opportunity just to get up to your district and see some sugarbeet farms this past summer. Of course, they were under a lot of duress from the drought that was happening up there. I think it underscores the importance of the sugar program. As you mentioned, there is a great deal of foreign market subsidization of their sugar sectors. Unfortunately, that often results in overproduction in those countries, and that surplus sugar is then just dumped on the world market, driving down those prices.

So, our producers are extremely efficient here in the United States. We produce nearly 70 percent of the sugar domestically that we consume here. We do that while meeting very high labor and environmental standards. It is just not the case that other for-

eign countries are doing the same in all cases, and certainly on a level playing field. I know some of your colleagues have, and you have, supported legislation that effectively says if other countries are willing to discontinue their over-subsidization of their sugar sectors, that we would also take a look at our programs.

So, with that, I would just say yes, our producers from both the cane side and the beet side are extremely efficient, but as I pointed out in my testimony, our program effectively is administered at zero cost. But we just can't compete with foreign governments subsidizing their producers to such a degree that is going on. We just saw a recent case come out of the WTO noting the extreme support that India is providing its sugar sector and we have seen the results of that with all that sugar effectively dumped on the world market. Thanks a lot.

Mrs. FISCHBACH. Well, thank you, and just building on that, you mentioned you were able to come to my district and see some of the disasters that they were facing, that the beet farmers were facing last year. And, you were the Chief Economist at the USDA when the WHIP+ program was put together that rescued growers in my state as well as other states when natural disasters threatened to drive many out of business. Can you expand a little bit and talk about the WHIP+, why it is so essential for our growers and how the producers took care of the consumers then?

Dr. JOHANSSON. Yes, of course. We would say producers would prefer to have a good harvest and market their product as opposed to relying on government programs. But in cases such as we saw with the WHIP+ Program back in 2018 and 2019, we had just such a severe hit to the sugarbeet industry with the freeze that went on up there, that untimely freeze that froze a lot of those beets in the ground. And we saw recently just this year Hurricane Ida slamming into Louisiana.

So, I would just say that the WHIP+ Program has been effective. Our producers have utilized that program when it has been there, and they have been eligible for those loses. Of course, as I noted, the 2022 freeze down in Florida is not authorized for WHIP+ at this time, but ultimately, that program or if the Committee looks towards WHIP—working on the WHIP Program to make it maybe a standing disaster program or something like it in the next farm bill, in a way that doesn't interfere with crop insurance. Of course, that—as everybody here on the panel has noted—is really underlying the safety net for a lot of their operations. So, we would certainly be receptive to working with the Committee on that. And again, I thank you for all your support, certainly, in getting that program up this year, and certainly for future disasters that just fall outside of the regular crop insurance safety net sort of regime. Having something like WHIP+ has been very effective for our producers.

Mrs. FISCHBACH. Well, I thank you very much and I appreciate your answers. I would just like to thank the Chairman for holding this hearing today, and with that, I yield back.

The CHAIRMAN. Thank you.

And now the gentleman from Illinois, Mr. Rush, is recognized for 5 minutes. Mr. Rush.

Mr. RUSH. Thank you, Mr. Chairman for this extraordinary hearing, and I want to thank all the witnesses for their participation.

Mr. Chairman, I have spoken before in this Committee about how my grandfather, who was a farmer in southwest Georgia, and indeed, I was born on his farm. And my grandfather, like too many Black farmers over the last 100 years or so, ultimately lost our farm. And I am concerned that not much has changed, Mr. Chairman, for Black farmers over the last decades. According to a review of USDA data, nearly all of the funds provided to farmers to offset the current impacts of the pandemic COVID-19 went to White farmers.

To any of these extraordinary witnesses, what policy would you recommend to the Committee to rectify both the historic and also the current discrimination that is too often faced by farmers of color, and specifically, would you include increased transparency of the very subsidies that are so vital to America's farmers and to Black farmers in your recommendation? Any witness?

The CHAIRMAN. Mr. Rush is asking any witness to respond to the discrepancy in the receiving of financial assistance for our Black farmers. Would any of you care to respond to that?

Well, let me comment on that, if I may.

Mr. RUSH. Mr. Chairman?

The CHAIRMAN. Yes.

Mr. RUSH. I need some response from the witnesses. Are they prepared to respond, or are they not prepared to respond?

Dr. Johansson, are you prepared to respond or are you not prepared to respond?

Mr. Doyle, are you prepared to respond?

Mr. DOYLE. Okay, absolutely.

I think it is about opportunity and communication. We have an open door if—I have spoken with—we have reached out to Black Farmers Association. We were invited to come to Georgia and speak at an event this past summer. I think COVID disallowed that. But no, we would welcome any comment or input from minority grower associations, absolutely. We only speak to the issues that our farmers bring to us, the most important things, and absolutely, I would put minority—Arkansas had—

Mr. RUSH. I only have a few minutes.

Ms. Berg, would you respond or are you prepared to respond to my question, or are you unprepared? Yes or no?

The CHAIRMAN. I think, Ms. Berg, he is referring to you.

Ms. BERG. Could you clarify the question for me, please?

Mr. RUSH. Okay. Let me just—

Ms. BERG. I can't hear him very well.

The CHAIRMAN. I think that what he is asking, Ms. Berg, if you could share with us what efforts you all are making in order to assist in the efforts to lift up our Black farmers more emphatically, because our Black farmers, by every financial economic indicator, are way behind because of past and present racial discrimination.

And so, what Mr. Rush is asking is what are you specifically, and other panelists, doing to address this? Are there any plans or any activities that any of you have to assist us in this situation to rectify the situation financially that is impacting our Black farmers?

Ms. BERG. So, one of the things that we do in our wheat industry, we represent 20 states across the country. We are always looking for new states to come on board to be part of our membership and be part of the decision-making process that we do for the wheat industry.

The other one is we reach out to USDA and they have quite a few programs out there that, whether it is beginning farmers, minority farmers, and so hopefully we support those programs to help improve grower education.

The CHAIRMAN. Right.

Mr. RUSH. Ms. Berg—

The CHAIRMAN. Mr.—

Mr. RUSH. Ms. Berg, being Black is not a state, all right, so this is not a state-by-state issue. Being Black is not a state. It is a condition, it is a reality, it is racial description. But it is certainly not a state.

The CHAIRMAN. Mr. Rush, what we are going to do, each panelist can be able to provide a written statement to you on this—

Mr. RUSH. Please.

The CHAIRMAN.—and I appreciate your inquiry on a very important issue, and all of our witnesses may respond in writing if you have specific things to address Mr. Rush's concern.

And now, I recognize the gentleman from California, Mr. LaMalfa, for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman.

First up front, I want to thank you for your moving tribute and prayer for our good friend, Mr. Hagedorn. He was a really good man and his loss hurts around here a lot. Good man from the first time I met him in our building there, so I appreciate everybody's kindness towards his memory and for his wife Jennifer and family.

The CHAIRMAN. Yes.

Mr. LAMALFA. So, with that, I want to just launch right in here. I have been a lot of places today, so I want to get with Jennifer James here from USA Rice. She had earlier testimony about PLC, the price loss coverage, and also to the other program, Agriculture Risk Coverage, can actually be a little better, a little more flexible when worked with other commodities.

And so, would you like a little more time to expand on how the flexibility to switch between the two programs is helpful?

Ms. JAMES. Well, in Arkansas, I have elected the PLC during the entire farm bill, and I am not as familiar with the California rice growing and their choices in the farm bill, but I can speak to the PLC and its importance definitely in the mid-South rice growing region. It has allowed many rice farmers to stay in business during this time, as our prices have been very depressed, and we are going into an area where the input costs are extremely high. My friends in California are probably experiencing some of the highest in the rice industry at this time, so we really cannot stress enough that the safety net and these reference prices, this is our safety net. The crop insurance program is important to us in certain instances, but the safety net, the PLC Program is vital.

Mr. LAMALFA. So, as we are seeing incredibly higher input costs, I mean, it looks like fertilizer for my co-op at home is up at least

80 percent, and we try to get our fuel tanks topped off at the tune of at least 50 percent more in cost from a year ago.

So, what you are saying is increasing the reference price is going to be extremely helpful towards getting through this next phase for rice, and I imagine the other commodities, too, right?

Ms. JAMES. Yes, sir, that would be correct. And we are working to try and figure out the data behind all that.

Mr. LAMALFA. Okay. So, is that something that will be pretty forthcoming, the data on that, so it can be implemented in our discussions?

Ms. JAMES. I am sure the rice industry will be working on that going forward, yes.

Mr. LAMALFA. Okay, thank you.

Jaclyn Ford with cotton. An issue for rising input costs affecting cotton as well, I guess that is somewhere across the whole range, some were reaching 25 to 40 percent when you blend fertilizer, fuel, and other inputs in there for—and cotton as well. And maybe that is low. You can direct me on that, too. What do you think this Agriculture Committee can be thinking about and incorporating into these farm bill discussions in just input costs, and what kind of reality are we going to have to have in the farm bill to better reflect, going forward, the issues we face?

Ms. FORD. I think just taking margins into consideration, increased reference prices are good, but also with the increase, we just never know what war and what the COVID pandemic brought our input costs up. So, I think considering margins when you are making those decisions for us.

Mr. LAMALFA. One of the things we are driving for immediately is we feel our energy costs can be brought back into line somewhat if the United States is producing its own energy and not relying on Middle East or high-cost energy, high-cost electricity, and all that.

Ms. FORD. Yes.

Mr. LAMALFA. My home State of California, electricity is going to continue to go through the roof as generation is taken offline. We had two nuclear power plants not that many years ago. We are going to have zero soon. Hydroelectric dams are under threat of being taken out. I am not sure where these input costs on energy are going to be able to come into line with that kind of policy. So, I appreciate that.

Now, Nicole Berg from wheat growers. I think this doesn't just apply to wheat payments, in your experience, it sounds like it has taken a year and a half after a crop is harvested for wheat payments to make it to the grower. So, that lag can obviously be really tough for cash flow and making payments. And even farmers on the edge might see that they might be going out of business waiting for that payment. Please, what do you have to say about that, to fix it?

Ms. BERG. Yes, during the WHIP+ appropriations, it is in the appropriations and we are now working on the disaster for 2020 and 2021, and we are now in 2022. And USDA hasn't really even finished rulemaking yet. So, we are hoping that with more expedience in rolling out these programs through USDA, it would help us farmers, help us in that time of need during that disaster and not just 2 years later and people are going out of business.

Mr. LAMALFA. Yes, unbelievable. Well, hopefully with most of this COVID nonsense behind us, we will be sharpening these issues up a little.

The CHAIRMAN. Thank—

Mr. LAMALFA. Mr. Chairman, I thank you.

The CHAIRMAN. Yes, thank you.

The gentlewoman from Illinois, Mrs. Bustos, who is Chair of the Subcommittee on General Farm Commodities and Risk Management, is recognized now for 5 minutes.

Mrs. BUSTOS. Thank you very much, Mr. Chairman.

Let me jump right into this. The 2018 Farm Bill requires the use of crop insurance yield data as the first source of data in the ARC Program. So, my questions are to Mr. Doyle and to Mr. Edgington. And if there is anybody else who wants to chime in, please feel free. But for the two of you specifically, has the use of crop insurance yield data improved how ARC has functioned? Mr. Doyle, we can start with you.

Mr. DOYLE. Yes, absolutely I think it has. It is more accurate data. I believe averages, as you know, farm yields from high to low across all types and fertility levels, so that crop insurance tied back to an FSA number is definitely more accurate, in my opinion.

Mrs. BUSTOS. Thank you, Mr. Doyle.

Mr. Edgington, if you could answer?

Mr. EDGINGTON. Yes, I totally agree with Mr. Doyle and we have made a lot of strides in the crop insurance world talking to the Farm Service Agency offices and how this all works for the farmers as they produce yields and provide the information to the various resources that need it. And so, we are definitely making strides. I think it is an area that we can continue to improve, though, because technology is helping us in that area in a lot of ways.

Mrs. BUSTOS. Okay, very good. Anybody else want to chime in on that question?

All right, if not, let me move on to my next question. Again, this will be for Mr. Doyle and Mr. Edgington for starters, anyway.

USDA has undertaken efforts to streamline the acreage reporting process for producers who participate in the Title I commodity programs and Federal crop insurance. Has this streamlining initiative worked, and has the reporting process been simplified for producers? Mr. Doyle, you first, please.

Mr. DOYLE. So, I think COVID has put us in a challenging year for the last couple of years, so we haven't had a lot of face-to-face conversations in the FSA office. Anything that makes reporting easier, more accurate, less redundancy I think will help us enter the programs that we so need, more efficiently and effectively, so I would say the verdict is still out for us, but I applaud the improvements to reporting.

Mr. EDGINGTON. Yes, and I agree with him on that. One of the areas that I think we have been challenged on—and COVID has been trying to maybe show us some things to work on—is the age grouping that we have with farmers and how they are comfortable in reporting. There is a generation just a little bit older than Brad and I that—I mean, there are days that I am not very comfortable with the computer, but I certainly do better than the generation that is thinking about retiring. And so, they are struggling, wheth-

er it is with their crop insurance agent or with the FSA office. Them not being able to go into the offices has been a real hindrance. They have worked their way through it. Our offices, at least in my area, have been very flexible in trying to help people, whether we have done things online or other ways.

But we are making strides, and it is—we love technology right up until we have to use it to give reports, it seems like. And so, we will get there and we are getting better, but I think there is always room for a little bit of improvement.

Mrs. BUSTOS. Okay. I am going to try to squeeze in one more question, and this will be for the panel, so whoever wants to jump in. It is a broad question.

I know the perspectives on ARC and PLC over the past couple of years have varied depending on the commodity. So, as this Committee continues our oversight work and looks ahead to the next farm bill, what are the metrics that we all should use when we evaluate the effectiveness of our existing programs? And maybe we will have one of the other people start first, and then anybody else who would like to chime in?

Mr. DOYLE. I think we definitely need to address reference price, because it has been mentioned several times here, but it is also important to remember that we don't want reference price to dictate the planted acres. We want to use it as the safety net, but we don't want it to drive or change our decisions from year to year. We want to use it as a tool.

Mrs. BUSTOS. Thank you.

Dr. JOHANSSON. Yes, that is a great question, Congresswoman Bustos. I would say, at least from the sugar perspective, certainly looking at loan rates and how closely aligned they are with our costs of production would be another metric to look at.

Mrs. BUSTOS. Thank you.

Ms. BERG. Madam Congresswoman, I think one of the things in the wheat industry we would like to do, we work on such thin margins, and we don't necessarily want to make a bunch of money, but we want to at least try to break even on these safety net programs and try to keep our family farms in business. So, I guess I would look at definitely the bottom line of how much do we make or how much don't we make, and how we plan for our risk management process. In my area, we have 6" of rainfall a year. Last year, I didn't harvest $\frac{1}{3}$ of my farm, and so, I had to utilize the safety net of crop insurance and it was there, and I would have to say it has kept the family farm in business.

The CHAIRMAN. Thank you. The gentleman from Indiana, Mr. Baird, is recognized for 5 minutes.

Mrs. BUSTOS. My time has expired.

Mr. BAIRD. Thank you, Mr. Chairman, and I too would like to start off by expressing my loss for my friend Mr. Hagedorn from Minnesota. His insight and his wisdom really contributed to this Committee in his home State of Minnesota, so I just want you to know I do miss him. Aside from that, Mr. Chairman and Ranking Member, I really appreciate having this hearing. I appreciate us getting started on the farm bill, and I appreciate all the witnesses sharing your insight with us here today.

Well, the one thing I want to start off with is—and maybe all of you can respond to this, but, Mr. Doyle, I keep hearing in my area, Indiana, that they feel the safety nets almost have to fall too low before they actually kick in and really give any kind of a safety net. And so, as we look at ARC, and the PLC, and otherwise relatively successful programs, do you feel that the reference prices have adequately kept up with the market trends, and the input costs, and your overall break even cost for production? And, if not, how do you feel we, as a Committee, should look at those reference prices, and how should they be evaluated?

Mr. DOYLE. Thank you for the question. I think Purdue University has a break even cost around \$11.07 for soybeans per bushel, and the current reference price is \$8.40. As has been mentioned here several times today about the input costs, we, as farmers, make most of our decisions the fall prior to planning. We make a budget, as we need to, but a lot has changed since then, so our profitability is at risk now, and raising that reference price to a certain level, absolutely we need to do that. What that level is, I believe we are not ready to quite agree on yet. We have a lot of economists and experts who will work on that, and we would be glad to present that at a later date.

Mr. BAIRD. Super. I really appreciate you mentioning my alma mater too, Purdue.

Mr. DOYLE. American Soybean Association was founded 101 years ago on the Fouts Farm in Indiana.

Mr. BAIRD. Super. Thank you. Anyone else care to comment about the reference prices?

Mr. EDGINGTON. So, the corn growers are just kind of getting started in their whole process, and we are really grassroots. I mean, we start down at the county level, and it goes to state, and next week, at Commodity Classic, there will be a lot of discussion around a lot of this, but we have also done surveys and questions, because there are regional differences, even with—in corn production.

Mr. BAIRD. Yes.

Mr. EDGINGTON. It is an area that is still under study for us, because you ask a really tough question of what should the price be. If we had a stable market every year that it is—whatever this is, that is an easier discussion than the volatility that we live in, both on the input side and on the products. So it is a very challenging discussion, and we will definitely be taking some time to analyze where we should be at.

Mr. BAIRD. I appreciate that very much. I have a minute and 51 seconds, so I have three more. If any one of you three want to comment, I would appreciate it.

Ms. JAMES. I would be happy to chime in. For the rice industry, I think I have mentioned it several times that the reference price is not working for us. And I know we are looking forward, but currently, the 2021 PLC is going to be about $\frac{1}{3}$ of the 2020, and for the 2022 crop we are about to plant, it appears we will have no PLC, but the market is just slightly above there, so we are in a very tenuous area, trying to make those planting decisions going forward, and so it is very important to the rice industry.

Mr. BAIRD. Thank you. We have a minute and 8 seconds.

Ms. FORD. On behalf of the cotton industry, I can tell you that we are very similar to Mr. Edgington. We have people meeting regionally, because cotton is huge too, and cotton in Texas is different than cotton in Georgia, and cotton in California is different than cotton in Georgia, so we are listening to all of our different sectors, and getting everybody's input in all of that. It will be the end of the year, probably, before we have all of those ideas, and interest organizations combined to get our recommendations.

Mr. BAIRD. Thank you. Any others?

Dr. JOHANSSON. Congressman, we are also—both from the cane side and the beet side, we are also looking towards talking to all of our members, and finding out what are the most salient recommendations to provide to the Committee, so we are also at the same process at this point in time. But certainly everybody, as has mentioned today, and certainly as you have highlighted, are watching these cost productions, and inflationary trends towards our input costs with a great deal of concern.

The CHAIRMAN. Thank you. The gentlewoman from Washington, Ms. Schrier, is recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman, and welcome to all of our witnesses. First, I want to thank Ms. Berg for testifying today from my home State of Washington. It is wonderful to see you again, and I so appreciate you sharing your expertise with all of us. I was going to focus on the wheat industry today, and so I have a couple questions for you. Let me just set the stage by saying that Washington State produces close to half of the nation's soft white wheat, which is very special, and approximately 90 percent of that is exported.

In your testimony, you noted that the wheat market has been like a roller coaster lately over the last few years, with severe weather events, trade disagreements, the pandemic, supply chain issues disrupting normal operations, even having China decide that they are going to grow their own wheat, and not have any imports some years. I have been hearing from growers in my district about the challenges of getting their crops overseas due to supply chain disruptions, mostly caused by exploitative practices of foreign-owned shipping companies, and that mainly affects hay and wheat. In recent months, I have been hearing the opposite side of this, about supply chain disruptions in the other direction raising the costs of inputs as a result of similar processes.

So, Ms. Berg, I just thought I would ask in a general sense, in light of the ongoing drought in the Pacific Northwest, higher input costs, the supply chain issues, I wanted to just ask generally how Title I farm bill programs are working, and if they are not working well, what are you hearing most from the farmers in your area?

Ms. BERG. Well, thank you, Congresswoman, and I want to thank you for all your hard work with regard to containers and shipping issues, because I know you have been a champion for our state, working on these issues for us farmers. I guess what I am hearing in the state is—with regard to USDA programs is we are definitely in a change of staffing at USDA, with regard to people are retiring. We have new people coming on board, and so, with these retirements, I think that there needs to be—definitely training for quality assurances in administering these programs.

And then I do look forward to the day we can go back into the offices and actually meet with folks. Over—the online has worked. Some farmers are grumbling because they—I mean, they are farmers. We don't want to be behind a computer. We want to go into the office and have somebody help facilitate us signing up for programs. And so that is kind of what I hear on the country side.

You addressed my volatility issue that the wheat industry has. I think it needs to be brought out that $\frac{1}{3}$ of the wheat production comes from—in the whole world comes from Ukraine and Russia, so we look like we are going to have definite volatility. Last week we were up limit, and then we are down limit, so I definitely see this as a huge volatility issue for our industry, with regard to price.

Ms. SCHRIER. Thank you for commenting on both of those issues. First, I will tell you that it feels like we are really close to being able to do things in person. We are here in this Committee room, not in masks, in this hopefully long period of being able to feel safe, and we feel that same angst. None of us like to be behind computers all the time. I was going to ask, since you touched on Ukraine and Russia, you are looking at this as uncertainty and volatility. Is there any benefit for exporters from the United States to be able to help alleviate—and fill these gaps, alleviate hunger around the world?

Ms. BERG. I hope there is. I hope this becomes an opportunity for American farmers, and American wheat farmers, with regard to a little bit of disruption with regard to supply and demand kind of concepts as we move forward. But the wheat industry also—we don't want to see people in war and so we don't necessarily want them to have a hardship either for their country and their region.

Ms. SCHRIER. Right. And this would be specifically filling temporary gaps.

Ms. BERG. Yes.

Ms. SCHRIER. Thank you, and thank you for those comments. We agree. As we look ahead to the farm bill, are there some ways specifically that we can sustain some necessary changes for you? In addition to that gap, you talked about a year and a half to 2 years of getting funding reimbursed. Are there other ways that we can help?

Ms. BERG. I think streamlining. I know that it was discussed earlier today. Streamlining the process would help farmers. Also in education and outreach to farmers of when is the signup. I think we could do better in promoting and working with—maybe it is the wheat growers—helping promote the message of get in and sign up. I think that that would be an important—

The CHAIRMAN. The witness could continue with a written response to her. Thank you very much. And now the gentleman from Iowa, Mr. Feenstra, is recognized for 5 minutes.

[The information referred to is located on p. 154.]

Mr. FEENSTRA. Well, thank you, Chairman Scott and Ranking Member Thompson. My district is the top ethanol producing district in the entire nation. Biofuels are a low-cost, low-carbon complement for other fuel sources, and it can be net carbon negative in the next several years. Biofuels are good for the environment, they are good for our farmers, and they are good for our consumers. We have all seen how Russia chose to needlessly attack Ukraine,

and the consequences of this will be significant to our agriculture community, and even the farm bill. Today the U.S. imports 206,000 barrels of crude oil from Russia every single day. This must stop. We must become energy independent, and biofuels are ready to fill that gap both domestically and overseas.

Mr. Edgington, thank you for being here from our great State of Iowa. It is a great pleasure to see you. I appreciate your testimony. You mention in your written remarks that 5.3 billion bushels of corn was used for ethanol in 2021, and there is more capacity to increase fuel production beyond that. To what extent can the ethanol energy increase energy independence, and how can the farm bill partner with the industry's goal to provide this opportunity where we can be energy independent through biofuels?

Mr. EDGINGTON. Representative Feenstra, thank you for that question. Ethanol is a fantastic product, and it does two things, it provides energy, and it cleans the environment. Greenhouse gas reductions are, the latest studies are coming out, over 50 percent reduction compared to traditional fuels, and we just keep getting better. And so it kind of covers two things. Energy independence, we immediately have more ethanol that is available, sitting in tanks that could go into cars and vehicles today and tomorrow. E15, we lost that on a year-round basis on what is a very interesting wording situation. We could get that back, at least on a temporary basis. That would definitely put more fuel into the supply that is domestic, that is here already.

We, along with our friends on the diesel side of renewables, have a great product, and we have more capacity. More plants are being built. Plants are able to expand. And we currently use a little over 5 billion bushels of corn for ethanol production, but we are putting almost \$1½ billion back into the livestock feed as actually a higher quality product. So it is really a great situation that we have with corn, and the ability, with ethanol, to simply help let the United States be more energy independent on its own.

Mr. FEENSTRA. I agree 100 percent. Mr. Doyle, sort of the same question with biodiesel, right? I mean, we have this great opportunity, and do you see anything that we need to look at to be proactive in the farm bill to address this, that we can be energy independent?

Mr. DOYLE. So soybean oil, as you mentioned, biofuel—actually 66 percent reduction in greenhouse gases. What once was a byproduct is now driving the price of soybeans. So any support to our refineries within the U.S. to encourage any kind of tax credits would be very beneficial.

Mr. FEENSTRA. Yes. I agree. I mean, I just think this is something the farm bill needs to look at to get us not reliant on 206,000 barrels a day of Russian oil. Got another question. I used to be a crop agent, and I know I had a lot of anxiety when the last farm bill came around, when it came to crop insurance. It seemed like it worked out okay. I know there are a lot of bumps in the road yet. Mr. Edgington and Mr. Doyle, we talked about a lot of the protections that are out there already, but do you see any nuances that we need to make crop insurance better, to make it easier for the farmer, whether it be at the FSA office, or in general, the policies that are currently out there?

Mr. EDGINGTON. So, one of the things I think that we have the opportunity is simply to expand what we can work with under the side of crop insurance, and that is what the PACE Program is about that has come out, and it is all about supplemental nitrogen, or split-apply nitrogen, which is kind of a two-win situation, because you are doing—be more efficient with your nitrogen as you apply it. The challenge you have—and I do this 100 percent on our farm, we split-apply all of our nitrogen—is—if the month of June in Iowa is really, really wet, you could be caught short, and corn is very nitrogen dependent. So the idea of the insurance, and it is being rolled out in 11 states, test counties, is that—if a weather event causes economic harm because you couldn't finish nitrogen, this could be covered through that. So that is one of the pieces.

Mr. FEENSTRA. Yes. I assume the same for soybeans.

Mr. DOYLE. Yes, 90 percent coverage for soybeans.

Mr. FEENSTRA. Yes.

Mr. DOYLE. Very important.

Mr. FEENSTRA. Yes. Sounds good. Thank you so much, and I yield back.

The CHAIRMAN. Thank you. The gentleman from Georgia, Mr. Bishop, is recognized for 5 minutes.

Mr. BISHOP. Thank you very much, Mr. Chairman and Ranking Member, for holding this hearing, and thank you to our witnesses for attending. And let me offer my apologies to Ms. Rogers for the technical difficulties in my introduction, but I certainly want to welcome you and Ms. Ford to this Committee.

Ms. Rogers, in your testimony you mentioned that there are a number of growers in specific regions that have produced peanuts for years, but don't have access to the PLC Program because of a lack of base acres. We know that base acres will help young and beginning farmers of covered crop commodities. How important is base acre enrollment to the industry, particularly to young and beginning farmers, and how can our Committee be helpful in addressing this issue? And what are your thoughts on the voluntary update of base acres?

Ms. ROGERS. We are looking into that matter, definitely. We have a number of growers that would benefit from an update of base acres, but there are some other options—that as well, and we have our economists looking into that, looking into the different options, and the cost of those options in the ways that we can help those growers, but not be detrimental to the growers, because this affects all growers, and lots of commodities in lots of the U.S., as you know. So we are hoping that in the future we can work with the Committee to come up with a solution to address this base issue.

Mr. BISHOP. Thank you. Mr. LaMalfa touched on this issue, but one of my priorities on the Committee of Appropriations is options for a permanent solution to disaster relief. Thought it continues to be elusive, there are improvements that really can be made, and, of course, the stopgap measures, like *ad hoc* legislation, as has been indicated creates delays, so we have to find a way to expedite the process.

You talked about the need for either a permanent disaster program, or other policy options to address disaster conditions, Ms. Ford. Can you talk about what disaster aid could look like, and

how Congress could be helpful in expediting, in the processing of that relief? And, Mr. Coleman, could you weigh in also on what permanent disaster relief would look like for specialty crop producers? Ms. Ford?

Ms. FORD. Yes. I am not really prepared to answer that specifically but I will get with the Council and get you an answer to that.

[The information referred to is located on p. 154.]

Mr. BISHOP. Okay. Mr. Coleman?

Mr. COLEMAN. I am not really prepared either. The one thing that I will say about the crop insurance is what we are finding with these specialty crops is our proven yields, if you have a real marginal year, the assistance, or the packages from the FSA and the crop insurance don't match up, and you end up with no insurance at all. And so that is a concern for our growers with these specialty crops. We need to find a way to make those numbers work better so if we do have just right below—or just borderline a disaster, we can still qualify for payments.

Mr. BISHOP. Okay. Thank you. You guys have come, and we depend upon you, because you are where the rubber meets the road. And, as we move into the new farm bill, we want to help forge solutions to these problems. And if you could really, really give some thought to it, and talk with others in your industries to help us so that we can craft in the new farm bill possibly some policy solutions that will address these concerns, because they are very serious, and I know that you probably don't have fully reasoned solutions at this point.

But as we move forward, help us so we can try to work it out, because we want to have policies in place that work for everybody—specialty crops, and for all of our farmers that will really continue to help us to produce the highest quality, and the safest, and most abundant, and economic agriculture anywhere. So thank you all for your testimony, but help us as we go forward with the farm bill in crafting a solution. So thank you so much for your coming, and sharing with us, and we look forward to hearing from you going forward.

Mr. COLEMAN. Thank you.

The CHAIRMAN. The gentleman from Georgia, Mr. Allen, is recognized for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman, I thank you for holding this important hearing. Obviously the commodity industry is very complex, and I have had a competing hearing today, but I have tried to check in, and—trying to learn more about, is there any way to make this process simpler? I mean, we talk about people who don't qualify because they don't have the acreage, or something like that. I mean, I don't quite understand those things.

But one thing that I am hearing back home a lot is that commodity prices are up, corn, cotton, soybeans, wheat, but input costs are rising as well, which is a real problem. For commodities that have not seen price increases, there is not additional revenue to offset the higher input costs, then barring a significant increase in yield, net farm income could be lower in 2022. Will this lead to calls for Congress to design some sort of a program that responds to these production cost increases? And I would ask each of you to respond to that question, starting with Ms. James.

Ms. JAMES. Certainly, and crafting what that might look like, I certainly don't know today, but I can tell you that with these higher input costs, and the price of rice that has not elevated, the rice industry—the rice farmers look at losing about \$500 million in this next crop year, so it is a very disturbing and important issue that we must continue to discuss.

Mr. ALLEN. How are you going to overcome that?

Ms. JAMES. Well, from a farmer standpoint, the unfortunate answer would be not to plant rice, and plant another crop, and that is not good long-term for our industry.

Mr. ALLEN. Yes. Ms. Ford?

Ms. FORD. Yes, the PLC Program has worked well for us in the past. This year people are going to be utilizing STAX more, but we are concerned with input costs rising, and even with cotton at over \$1 today, we are at a break-even point, which is really sad, because normally we are really, really excited about a dollar cotton. So input costs now—fertilizer is 120 percent from what it was last year. Some chemicals are double. Fuel is up 40 percent, so our input costs are up significantly, so definitely we need to re-evaluate the reference price, and what we need to do.

Mr. EDGINGTON. As I said earlier, that is a tough question. When you do these farm bills about every 5 years, and you try to look at averages and lengths, and have we moved into a different price parameter on input costs long-term. That is really tough to forecast like that, and we have to use the USDA and other economists to help us with that, and we are going to be looking into all of that as we think about this.

It is probably against the nature of most farmers to want to say that they are going to use some USDA program to help them out every single year. That is not their style. Most of the time it is leave me alone. Let me produce what I am doing, and leave me alone. So that always comes into the discussions we have, but we are a ways away from having that—

Mr. ALLEN. Well, see, yes, we want to leave you alone, but the problem is this war on fossil fuels has caused the input prices to do this. And this Administration's war on fossil fuel is the problem, and that is an event outside of your control. And that is why I asked this question. Yes, Ms. Berg.

Ms. BERG. Thank you, Mr. Congressman. Input costs—just to give you an example, glyphosate, Roundup, you used to be able to purchase it for \$15, and now we are hearing prices quoted as \$82. So that kind of gives you a perspective of increases in these input costs. Farmers are survivors. We will try to survive through this dark time. A lot of us did some pre-purchasing, did fertilizer spreading last fall, and hopefully it doesn't catch up to us too much with these rising costs, and putting family farms out of business.

Mr. ALLEN. I know, but it is so unnecessary, because if we would return to the previous Administration's energy policy, we wouldn't be seeing the cost of a barrel of oil doing this. I mean—go ahead, sir.

Mr. DOYLE. So, yes, not only would the price—has the price increased, a lot of it is uncertainty for the supply. We might not even have the crop protection products to finish this crop out. If we

could bring manufacturing back to the U.S., that would be critical for our longevity in this industry.

Mr. ALLEN. Yes, and we have to bring all essential manufacturing back to this country. Mr. Chairman, I am out of time, and I yield back. Thank you, sir.

The CHAIRMAN. The gentleman from California, Mr. Carbajal, is now recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. Santa Barbara County, in my district, was historically home to sugarbeet production, and California continues to be a sugar producing state. I am a strong supporter of our current sugar policy, and I am looking forward to discussion on how to maintain and strengthen it in the upcoming farm bill. Dr. Johansson, U.S. sugar policy has allowed American sugar producers to invest in on-farm and factory improvement to become even more efficient and more sustainable. Per acre yields for sugarbeet and sugarcane have both sharply increased over the past 20 years. Can you explain how the current U.S. sugar program has helped producers invest in their operation?

Dr. JOHANSSON. Congressman, that is a great question, thanks for asking. Sugar program, as you have mentioned, has been effective in helping our producers improve efficiencies, increase in productivity on their fields as well. As you have mentioned, over the past 20 years or so, we have seen production increase by about 16 percent for both sugarcane and sugarbeet production in the U.S., all while farming 11 percent fewer acres, and that is just a testament to the general ingenuity on the part of our producers. We have heard about a lot of that today here on the Committee. The American farmer is the most productive, and most efficient at responding to challenges, and we are seeing that play out on our sugarbeet and sugarcane farms across the country.

The current policy, as I mentioned earlier, is extremely important, even though it comes at no cost to the taxpayer, and it has operated a zero cost for the last—for 17 of the last 18 years, and, of course, forecast to cost zero dollars going forward for the next 10 years by USDA. It is extremely important because of the issue that we see in the global sugar market being so distorted by foreign country over-subsidization of their sectors, and the dumping of that sugar on the global market, which drives down costs—the price of the global sugar—global sugar prices to below the cost of producing that sugar.

And, of course that is something that would effectively drive our producers out of production, if that program wasn't supported by the Committee, and we look forward to, certainly, your continued support on the Committee, and looking at strengthening that safety net as part of the other commodities as well, looking at trying to align our supports, whether that be loan rate, or the other programs that have been talked about today better with cost of production and input costs.

Mr. CARBAJAL. Thank you, Dr. Johnson—Johansson. Sorry for screwing up your name there, I apologize. With the COVID-19 pandemic impacting our supply chain, and disrupting so many sectors of our economy and agriculture industry, can you share with me how these challenges have impacted the domestic sugar industry?

Dr. JOHANSSON. That is another great question, thanks for asking. Of course, COVID-19 has—the pandemic has affected all producers in all their markets, both here in the United States, and certainly we have seen abroad, and, of course, the conflict that we are seeing between Russia and Ukraine is obviously going to be putting a lot of energy markets, fertilizer markets, and commodity markets in turmoil. Over the past couple years, certainly, our sugarcane and sugarbeet producers have been cognizant of this issue, and have put in place safety measures at all of our mills, refineries, processing facilities, to safeguard all of our employees, and we have done a very good job of that.

Certainly we have been concerned with labor in general. It is a big issue for us, as it is for a lot of other commodities that are represented here, and we are continually trying to both provide safe working conditions for all of our employees, but also secure labor, whether that is through the guestworker programs, or other labor sources here in the United States. Of course, the labor market is extremely tight right now.

We certainly would support, and look towards Congress to working on the issue of improving labor supply. But ultimately, with the pandemic, yes, hopefully, as has been mentioned, we are coming out of that, returning to more normal conditions, would look forward to hopefully joining you next time in person, and would be able to provide additional responses in writing later.

[The information referred to is located on p. 152.]

Mr. CARBAJAL. Thank you, Dr. Johansson. I am out of time. I yield back.

The CHAIRMAN. Thank you.

The gentleman from South Dakota, Mr. Johnson, is recognized for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. I want to dive a little deeper into the line of questioning that Mr. Bishop had. And I know, as we talk about *ad hoc* disaster relief, or maybe moving toward a more permanent program, we think about the interplay with crop insurance. That is obviously most clear. But I guess I want to start with Mr. Doyle. Some of the other witnesses didn't have strongly held opinions on Mr. Bishop's question, but I want to give you an opportunity, sir. As we think about disaster relief, are there Title I interactions that we should be thinking about *vis-à-vis* the next farm bill? Your thoughts?

Mr. DOYLE. So I think we need to see how it is designed. It would depend on how it is designed, and what its purpose is. We, as soybean farmers, rely heavily on crop insurance. Ninety percent of soybean producers partake in crop insurance, so that is the number one vital tool. As I mentioned earlier, ARC and PLC have been used very little over the last few years, but I think we are always open to some sort of protection beyond what is the norm, so we would be in support of a program. When disaster comes up, we appreciate the ability of this House Agriculture Committee, and our government, to come in, step in, and support us when needed, because many of those disasters are out of our control. We never plan for them, and they can devastate the family farm operation in one single crop year.

Mr. JOHNSON. So, Mr. Doyle, does American Soybean have a policy on whether you prefer *ad hoc* disaster relief, or maybe a new permanent program? A new standing program, rather?

Mr. DOYLE. Not really. I mean, we go to the farm bill. That is our go-to. We would—as conditions or instances would come up, we would—yes, we would definitely seek support. But, as of right now, we are pretty happy with what the farm bill produces, other than the ask for change in reference price, as we requested. Things like that protect us enough, along with crop insurance.

Mr. JOHNSON. Mr. Edgington, how about for corn? Do you all have a strongly held opinion on *ad hoc versus* standing disaster relief as we look toward the next farm bill? And are there interactions between Title I programs we should keep in mind if we were going to make any change to disaster relief?

Mr. EDGINGTON. So, the history has been that we have been more in the *ad hoc* camp, and—partially because there has been—and I have been farming for close to 40 years, and there were long stretches that we didn't much need disaster programs. And then Mother Nature runs a cycle, and it is like, well, we have to have something almost every year somewhere in the county. But, the *ad hoc* seems to kind of work for that. Obviously there are relationships between ARC, PLC, crop insurance, and WHIP, and then you can move over into some of the other programs.

But we have a pretty solid safety net program for most commodities in the current farm bill, and Mother Nature is still our biggest wildcard, will probably always be our biggest wildcard. So, to write a program that is permanent, based on what Mother Nature is going to do is really a challenge when we don't know what she is going to do.

Mr. JOHNSON. So for both Mr. Doyle, Mr. Edgington, we have talked reference price, reference price today, and I get it, clearly that is going to have to be a serious focus of the Committee's work here over the course of the next year or so. Are there other things with regard to ARC and PLC that we need to be mindful of as we roll into the farm bill?

Mr. DOYLE. I think, just to mention base acres, a lot of the young producers only have 10 or 20 percent of their farm base acres, so the opportunity for them is almost non-existent. So any—

Mr. JOHNSON. And I am sorry, Mr. Doyle, I should have included base acres in a topic that we have pretty well—

Mr. DOYLE. Yes, sir.

Mr. JOHNSON.—fleshed out, or are in the process of fleshing out. So, other than those two things, is there are a third—and maybe those—one and two are so big we don't need a third target, but I wanted to give you an opportunity.

Mr. EDGINGTON. Well, you might have the opportunity to deal with yields, and what things are based off of on that, because our yields, and I think everybody up here has mentioned it, we continue to improve with genetics, and opportunities that we get, and our costs go up because of that, and usually there is an association. And so, as we look at maybe increasing the base yield to go with the base acres that are there, or back and forth, it becomes an area that also maybe should be looked at.

The CHAIRMAN. Thank you very much. The gentleman's time has expired. The gentlewoman from Minnesota, Ms. Craig, is recognized for 5 minutes.

Ms. CRAIG. Thank you so much, Mr. Chairman and Ranking Member, for having this hearing, first and foremost, today on Title I programs. Corn and soybean farmers in Minnesota's 2nd Congressional District rely on these programs for stability, and I am really grateful to the witnesses today for sharing their input in how the tweaks made in the 2018 Farm Bill have played out. As the conversations for the next farm bill ramp up, I am curious to learn more about how Title I programs like ARC and PLC have worked for family farmers during the instability of the past few years. I recognize that some of that was covered by my colleague Dusty Johnson, but maybe we will go into just a little bit more here.

With that in mind, I will turn to President Edgington for my first question. Mr. President, as you know, corn growers on family farms in Minnesota's 2nd District provide food for people across the country and the world. They also provide the key input for ethanol, which grows markets in Minnesota, and helps to de-carbonize our transportation sector. That is why I am pushing every opportunity to ensure that the year-round sales of E15, whether it is through my Year-Round Fuel Choice Act (H.R. 4410), or another legislative route. That is less of a farm bill conversation, of course, but I mention it here because biofuels are such a critical part of our collective effort to support renewable fuels.

When it comes to the upcoming farm bill, I am hoping you can provide a little bit more perspective on any additional flexibilities that NCGA thinks might be impactful for family farmers moving forward. Are there any additional tweaks, like the ARC and PLC election flexibility change in the 2018 Farm Bill, that might make a difference?

Mr. EDGINGTON. Representative Craig, thank you for that, and thank you for your support of ethanol, and all the things that you have done for us on that. As I mentioned earlier, we conducted a study, it is over 900 people that responded, and we are working through that data. We will answer some of those questions that you have asked, and we will have more of that information this summer as we move forward, and how to maybe fine-tune, or how to adjust some of the current farm bill programs as they reflect on corn growers. I think we will have a really interesting discussion next week in New Orleans around some tweaks. We always do at our policy sessions. And then we meet again in July right here in Washington, D.C. So we will be bringing some of those things that you are asking for, but at this point, we are still working through the process.

Ms. CRAIG. Well, thank you. We look forward to getting an update, and, obviously, are very interested in your suggestions. I want to turn to President Doyle next. President Doyle, thank you so much for your comments and focus on the role that the ARC and PLC reference price for soybeans is playing in decision-making for bean growers. The fact that the last time a PLC payment was triggered for soybeans was 2005 indicates a lack of responsiveness in the program, especially when some soybean farmers experienced negative margins for their crops during the 2018 and 2019 trade

wars. With that in mind, can you speak to what ASA thinks might make sense for a reasonable reference price?

Mr. DOYLE. It is, soybean prices are driven by supply and demand, and right now the prices are good, driven by demand. The safety net, PLC or ARC, it is a safety net. It is what we go to when times are bad, and I would have to say times are pretty decent right now, and good for soybeans. We have high demand. But to give you an exact reference price, I believe I am not qualified for that, but we will deep dive into that this year.

As I mentioned earlier, Purdue set a break even price around \$11. Somewhere near that may be where we need to be. We have sufficient data coming. We will continue to have talks with our state affiliates, and we need all of that data to come in, along with buyers, and see what long-term demand and supply will be, and hopefully we can shed some light on what would be a more fair and safe reference price for soybeans.

Ms. CRAIG. Thank you so much, Mr. Doyle. Let me just ask real quick, any other farm bill updates you would like the Committee to consider?

Mr. DOYLE. I think for soybeans Minnesota's one of the strongest on crush. Any support of oil and Renewable Fuel Standard would be beneficial to our industry.

Ms. CRAIG. Awesome. With that, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. The gentlelady from Louisiana, Ms. Letlow, is now recognized for 5 minutes.

Ms. LETLOW. Thank you, Chairman Scott and Ranking Member Thompson, for holding this very important hearing to review the key commodity support programs authorized by the farm bill. And I just have to say, I love seeing so many women in agriculture witnesses. And, as many of you know, agriculture is the backbone of my district, and is one of the largest economic forces for the area. From rice, to cotton, to soybeans, to sugar, all of which are represented here today, my district has been blessed with the fertile soil to grow just about anything. In fact, according to the *USDA Census of Agriculture*, my district alone accounts for 49 percent of total agriculture sales in the state. It is the hardworking farmers, ranchers, and forestland owners throughout my district that I am proud to represent on this Committee, and drafting the next farm bill needs to remain at the forefront of our vital work, going forward.

Ms. James, in your testimony you mentioned a study I requested of Texas A&M University's Agricultural and Food Policy Center to determine the economic impact of higher fertilizer prices on its representative farms. I am truly appreciative on AFPC's hard work to complete this analysis, but I am concerned by the findings which show steeply increasing input costs across the board for commodities, and particularly rice, farms experiencing the highest fertilizer cost increase per acre.

Ms. James, could you please speak to how this tremendous increase in input costs are affecting you, and are you struggling to find certain inputs to be able to successfully plant a crop this year? And then, second, while we all understand that traditional farm bill programs discussed today aren't designed to react to these unprecedented input economic challenges, how could we look to the

next farm bill to help alleviate these unpredictable production challenges in the future?

Ms. JAMES. Well, thank you, and thank you for your question. Of course, the study that you referenced, actually, the average per acre increase in the rice industry was \$174.20, and I will stress that that is the average, so there are many producers who are going to experience a much higher cost per acre this season. This equals over \$500 million increase in the rice industry would be spent to produce this crop, so, yes, we are struggling. We are trying to make planting decisions.

On my particular farm, I will be planting less rice acres this year than we normally do. We have gone through our budgets, and have made adjustments in line items that we can. We are trying to choose less expensive rice varieties that will still yield as well. We are modifying our pre-plant fertilizer applications, and just trying to make good decisions so that we can still grow rice and support our industry. We are concerned about the inputs. One input in particular is the nitrogen. Nitrogen fertilizer timing for rice is extremely important for the yield benefits, and so we are concerned that we may not have that availability at the proper time for the plant to do its best job.

Looking forward to the next farm bill, as I have mentioned, the crop insurance products that we have in rice are not as effective for us. We are able to grow rice in a controlled environment, and, therefore, most years have a good yield. Therefore, something in the revenue department is always important for us to be sure and protect our revenue. As we referenced earlier in the Committee, the PLC for rice is extremely important, and the fact that the market is just above that is very disappointing right now.

Ms. LETLOW. Well, thank you so much for your testimony and this insight. Mr. Chairman, I yield back.

The CHAIRMAN. All right. Thank you very much. Members, before we move to our next questioner, I have just a brief announcement. One of our witnesses, Ms. Ulibarri, has a family emergency, and has to leave. Any questions for her can be asked for the record to receive a response in writing. Thank you for that. And now the gentlewoman from Iowa, Mrs. Axne, is recognized for 5 minutes.

Mrs. AXNE. Thank you, Chairman Scott, and thank you to our witnesses for being here today. I appreciate your testimony, and look forward to continuing to work with you all as we review the 2018 Farm Bill, and look ahead to 2023, something I have been very much looking forward to in my role. I especially want to welcome Mr. Edgington. Chris, it is always good to have an Iowan testifying on this Committee, so welcome, and thank you for the hard work that you do for our community, and Iowa, and on behalf of Iowa farmers. I am very appreciative.

As you know, last year prices and production were strong in Iowa, and they look positive for the future, but farmers have experienced significant volatility and uncertainty over the last few years due to the demand destruction caused by the trade war, and, of course, by the pandemic. So farmers were able to survive those challenges due to strong farm safety provided through crop insurance, Title I programs, and recent *ad hoc* programs, so it is imperative that we look at all these, and support these farm safety net

programs, and improve them where necessary, so I have a couple questions along this line.

Mr. Edgington, as you noted in your testimony, farmers now have the opportunity to decide between ARC and PLC each year, rather than making a multi-year decision. Do you believe that that change to annually, as opposed to multi-year, has helped benefit our farmers?

Mr. EDGINGTON. I do think that is a good choice, because of the volatility, and I am a case in point. I have actually played in all of them. I have done ARC-County, ARC-Individual, and PLC, and there are definitely people that have gone back—from PLC back to ARC-County this year. And part of the reason we were doing some of the back and forth was dependent upon what you wanted to do with crop insurance, if you wanted to look at the supplemental programs of ECO or SCO, which there was about 10 million acres in last year's crop that people signed up for. So I do believe in that flexibility.

Mrs. AXNE. Okay. Well, thank you for that. And next question along these lines is what do you and other producers consider when deciding between ARC and PLC, and do you believe that there is enough information out there, and easily available, for you to make a good decision, an informed one? I am trying to get at—it sounds like you have taken different opportunities, dependent on what your needs are. How easy is it for our other farmers to get this information so that they can do the same?

Mr. EDGINGTON. Well, there is probably always room for improvement on ease of availability, but it is a challenge. The programs are big, and familiarity helps, and that is why, actually, I really hope that we continue with that in the next farm bill, because people are finally getting comfortable about exactly what these programs are, and how they work for them individually. There are online tools that help. The university extension officers were very useful when these programs were originally rolled out. They, along with the FSA offices, worked together, especially in Iowa, I assume the other states were similar, as people tried to work through those programs. But there are big decisions, and the challenge oftentimes is you are forecasting the future, when you do those, and so you take your best experienced decision, and move forward with that.

Mrs. AXNE. Okay. So is there anything that you think we should be looking at adding? Any push marketing out to farmers? Anything that we can be in front of them with this on a regular basis? You mentioned that the ISU extension was really helpful at the beginning of the program. Is there anything that you think we should be doing ongoing to make sure farmers are aware?

Mr. EDGINGTON. One of the things, I think it was mentioned earlier, is maybe a reminder. Farmers are busy. They are doing their day jobs. And, yes, signing up for government programs is part of our day job, but it is something that slides through the cracks quite often. I have seen that happen in our operation, where you have to make a decision, and it is like, wait a minute, it is already that time? How did we get here? And, you really haven't had time to think about it.

So maybe we need to go back—and it doesn't—I wouldn't say it is an every year thing, but maybe it is an every other year, during the winter have a discussion about the programs on a more open forum, coming from either extension or FSA, to say, "Hey, guys, let us sit down and go through these again, run the formulas, because everybody has talked about these are pretty complex, and farming is not getting smaller."

Mrs. AXNE. Well, thank you for that. I very much appreciate that, and hopefully we will reach out to you and maybe get some thoughts on that from my team so we can put that into place. I couldn't agree with you more. I really appreciate your time today. I have other questions, but my time is coming near to an end here, so I will thank you so much, and I yield back.

The CHAIRMAN. Thank you. The gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. Well, thank you, Mr. Chairman, and thank you to all of our witnesses for appearing before the Committee today. Going into farm bill season, this is extraordinarily exciting, even though I know it doesn't seem like that after 3 hours, but very important nonetheless, so I will jump right in. Dr. Johansson, I know that Florida farmers, including our sugarcane farmers, are assessing the damage from the January freeze, and they will share details of the damage as the harvest continues for the next few months. Please let us know, when possible, what disaster aid language might be necessary for Florida farmers to recover from the unexpected losses.

Now, today I want to focus on a bill that I sponsored that pledges to end our sugar policy only when other countries end their sugar policies. You all may know it as Zero For Zero (H. Con. Res. 43). The sugar industry supports this Zero For Zero legislation, and I would like you to briefly explain to my colleagues why, as an industry expert.

Dr. JOHANSSON. Well, thank you for that question, Congresswoman Cammack. As you point out, over 100 countries produce sugar, and their governments are deeply involved in these industries, providing either high subsidies, tariffs, or non-tariff trade barriers to protect them. Billions of dollars go into their industries each year, which allows them to dump their surpluses below their own cost of production on the world market, which directly threatens U.S. farm families.

There is nothing fair about global sugar markets. I will just point out, as an example, the WTO recently found India guilty for subsidizing sugar production by more than \$14 billion a year, paying export subsidies to dump their surpluses on the world market. The U.S. sugar policy is a response to that high and rising foreign subsidies, which are a core cause of predatory trade practices in the global market. The vast majority of these producers are higher cost and less sustainable than U.S. producers. Our sugar policy is a comprehensive response to these unfair trade practices, and if they stop these practices, as you point out, and let our farmers compete in a fair, competitive marketplace, we would not need a program.

We applaud you, Congresswoman, for leading the charge through your Zero For Zero legislation to expose those subsidies and trade practices that threaten our sugar industry, and actually press to

have those problems addressed on a multi-lateral basis in the appropriate venue. Thank you for the questions.

Mrs. CAMMACK. Thank you. And when you put it like that, I just don't know how any of my colleagues would argue against the Zero For Zero legislation, so thank you for that. And, just so we are very clear, have you seen any evidence of foreign nations cutting back on their sugar subsidy programs, yes or no?

Dr. JOHANSSON. That would be no, and, in fact, the other direction.

Mrs. CAMMACK. Perfect. Thank you. I am going to now move to another issue that is near and dear to some of my producers' hearts, and that is the issue of peanuts and base acreage. So, Ms. Rogers, I appreciate your testimony, particularly your highlighting of the fact that not all producers of peanuts have access to the PLC Program due to lack of base acres. My district, my state, has a particularly unique situation in this regard.

As you know, many peanut producers in Florida have faced challenges with the current base acreage arrangements. Given the changing economics growers are experiencing, particularly the rising costs of inputs, do you think that taking a look at a potential voluntary update to base acres across commodities could have a positive impact on the bottom line for producers, including those peanut producers currently without access to the PLC?

Ms. ROGERS. Thank you, Congresswoman. We are definitely looking at that. Our peanut leaders, they have been meeting with many growers in Florida to talk with them about the issues, and how it could be addressed, and definitely updating base is an option. We are looking at that, plus many other options as well. We have our economists looking at it, and coming up with a cost that would be to update the base, and the cost of other options as well. And we sure hope that we can work with your team, and this Committee, to come up with an option that would work for those growers, as well as the rest of the growers.

Mrs. CAMMACK. Thank you. And do you believe that, if we were to move forward with a base update, that would incentivize and encourage young farmers to enter the industry?

Ms. ROGERS. I think that is possible. We definitely need to do what we can to help farmers, and whatever we come up with, whatever option we come up with, to be able to help the ones without base, will definitely help the young farmers.

Mrs. CAMMACK. Excellent. Well, I appreciate your commentary, and thank you again to all our witnesses before the Committee today. With that, Mr. Chairman, I yield back the remainder of my time.

The CHAIRMAN. Thank you. The gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations, is now recognized for 5 minutes.

Mrs. HAYES. Thank you, Mr. Chairman, and thank you for having this very important hearing. Title I subsidies, along with non-farm bill assistance programs, are a critical economic safety net for the farmers in my district that can access them. Between 1995 and 2020, three farms in my district received commodity payments totaling \$4.1 million. Compared with some of the other regions rep-

resented on this Committee, that is pennies. And while these programs are based on acreage, it is still concerning to me that our smallest farms, those that have the tightest profit margins and least assets to fall back on, may be benefitting less than large corporate farms, and the largest family farms. That disparity is even more concerning when you consider the increased input process we have seen over the past year. Many of your testimonies mentioned these concerns, and the negative impact they are having across the agricultural sector. That strain is multiplied tenfold for a small family farm.

The largest Title I payments to farms in my district were Agricultural Risk Coverage payments for corn. So, Mr. Edgington, as President of the National Corn Growers' Association, can you provide some insight on how those payments function for the smallest farmers?

Mr. EDGINGTON. So, it is a function of the process, and acres, and yield, so you have a formula that is designed, and it is based off of acres and yield. And, yes, there are fluctuations, there is no question, from large farms to small farms. And, unfortunately, I don't know a real good way around that. If you speak with Secretary Vilsack, he will talk about what percentage of us farmers actually get a living based off of only crop production, and it is not very many.

And while people say that large family farms are a challenge, I live in part of a large family farm, and when you break it out on an individual basis, we are not that many acres per producer inside of our operation. And so it is always something to be looked at, but it is—currently it is a function of base—of acres and yield.

Mrs. HAYES. Do you think that it is equitable between small family farmers, like those in my district, and some of the larger corn producers?

Mr. EDGINGTON. So, in your question about equitable, are you saying on a per acre basis, or in the total dollars going to the operation? Because, if you take two operations, and one has 150 acres of corn, and one has 1,000 acres of corn, but their base acres and their yield are the same, on a per acre basis, they will be very equivalent. On an overall operation, there will be a difference. So it is a challenge as to how you look at it, and what area you are after.

Mrs. HAYES. Got it. Thank you. In your testimony you talked about how the USDA should continue to find more ways to reduce the reporting burden on producers. Can you elaborate on the burden felt by producers being required to visit the FSA office, and how might that burden be decreased?

Mr. EDGINGTON. Well, one of the ways we talked about was how you handle crop insurance, and reporting to the RMA, as well as reporting to the FSA. In a lot of cases it is a dual process, and there should be a way to streamline that. Now, personally, I am fully in favor of using the USDA acres, because they are the most accurate out there. If you use farmer technology numbers, there is some variance. RMA, in my area, at least, uses FSA numbers, because they know that is the most accurate. But there should be a way that it could be a one stop—either I am going to go visit the FSA office, and RMA gets those numbers, or I am going to go visit

my RMA agent, if he is closer, and FSA gets those numbers. I think there is an area we could get some efficiency improvements.

Mrs. HAYES. Thank you. I think we have heard the same thing across multiple programs. And last, for whomever on the panel would like to weigh in, I have heard a lot from people in my district regarding input prices and the increased cost of fertilizer. While this is very concerning in the immediate term, there may be other conservation practices that could mitigate the need for fertilizer long-term. Specifically, planting cover crops may also improve the nutrients in soils that are available for crop production, potentially reducing farmers' dependence on chemical fertilizers. From your perspective, did higher fertilizer prices lead farmers to plant more acres with cover crops over this last winter?

Mr. DOYLE. Absolutely, I believe so. It was a driving force, especially for soybean farmers. Very beneficial to plant cover crops, and we certainly encourage that.

Mrs. HAYES. Thank you. Thank you for your time, and your thoughtful answers. Mr. Chairman, that is all I have. I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is recognized for 5 minutes.

Ms. ADAMS. Thank you, Mr. Chairman. Thank you to the Ranking Member as well for hosting the hearing today, and to all the witnesses, thank you for being here. The commodity support programs discussed today primarily assist basic commodities, such as corn, rice, and cotton. However, socially disadvantaged and minority farmers tend to produce fruits, vegetables, and raise livestock. Therefore, socially disadvantaged and minority farmers are not able to take advantage of the bulk of funding and support programs. Improving access for all agriculture stakeholders to the assistance programs that fall under commodity support programs is a priority for me, and I look forward to working with my colleagues on this issue as we move forward on the farm bill.

So, Ms. Ford, in your testimony you mentioned the need for market loan programs to be automated. So have any of your members, especially socially disadvantaged farmers and ranchers expressed challenges in accessing the technology, or navigating the application process, for commodity support programs?

Ms. FORD. We are advocating that everybody use more technology, and right now we are working with the National Black Growers' Council currently on just more involvement, and more minority—and involvement overall.

Ms. ADAMS. So have you had any one of those express the concerns that I have just mentioned? Ms. Ford?

Ms. FORD. Yes, ma'am. The program automation has been a problem because of government shutdowns due to COVID.

Ms. ADAMS. Okay. So what have you asked USDA to do to better support the socially disadvantaged and minority growers? Have you had a conversation with them about it?

Ms. FORD. I have not personally, but that is something that the National Cotton Council is working on, is more outreach and more communication.

Ms. ADAMS. Okay. All right. Mr. Edgington, a condition for eligibility for Marketing Assistance Loans rests on the ability to store

commodities, a current problem due to supply chain issues caused by the COVID-19 pandemic. So have your members expressed any concerns regarding the eligibility or capacity to store their product?

Mr. EDGINGTON. Storing corn is maybe a little different than others because we work in such a large volume, and our infrastructure for corn has been pretty solid. You have a local co-op network system, you have a regional delivery system, or you have on-farm storage. There always can be challenges, and, obviously, the supply challenge that I hear about is maybe not from the loan side, and the USDA, but from the supply side, is can I get the materials to build a new storage bin to hold the crop?

And so we definitely have supply chain challenges inside the corn industry, as I think everybody at the table would say, and so we are hoping that we can get back to a new normal on supply chain, but nobody knows what that is.

Ms. ADAMS. Okay. Mr. Johansson—I mean Dr. Johansson, according to a review of USDA data, the top ten percent of farm subsidy recipients receive almost 80 percent of all farm subsidies. While the largest ten percent have received, on average, more than \$560,000, the bottom 80 percent received an average of about \$8,000. So, considering these economic disparities, do you support reasonable payment limits and means testing for farm subsidies?

Dr. JOHANSSON. Congresswoman, that is a great question. I think I had pointed out here earlier, between 10 to 15 percent of farms produce about 90 percent of the food marketed here in the U.S. That means there are a lot of other operations out there that are also engaging in crop production and livestock production. They are just at a smaller scale. So that explains one component of that distribution of payments that you just mentioned.

Obviously, means testing and payment limits are firmly in control of the Committee you are on there. I know that Congress has looked at this issue many times over the past, and has convened various committees, some of which include, for example, the office I used to work in. At the Office of the Chief Economist, I think we have seen some reports coming out from those efforts. I would imagine that this would be something that you all look at with the new farm bill upcoming.

Ms. ADAMS. Thank you, sir. Mr. Chairman, I am out of time. I yield back.

The CHAIRMAN. Thank you. Thank you very much. And now the gentleman from Florida, Mr. Lawson, you are recognized for 5 minutes.

Mr. LAWSON. Thank you, Chairman Scott and Ranking Member Thompson, for holding this hearing. It is a very important hearing, as we deal with a new farm bill. And I want to welcome, as most of them have welcomed, all the participants that we have in the hearing today. My statement, which I want some clarity on, is the 2018 Farm Bill, included increased loan rates for most covered commodities, including sugar loan rates at around one percent a pound. Dr. Johansson, you mentioned in your testimony that the increase did not keep up with inflation or the rising cost of production of sugar. What should be done to the sugar loan rate to make them more effective to sugar producers, and why should this be a priority?

Dr. JOHANSSON. Congressman, that is a great question. I think, as everybody on this panel has talked about, cost of production, input costs are rising quite a bit, certainly since this—I guess since last April, since last May, when we saw inflation really taking off, and that is been affecting all commodity production. Sugarcane and sugarbeet certainly have been feeling that as well, and, of course, in the 2 months we have seen this conflict in Ukraine also pushing up prices for a lot of our inputs. Same time, I just want to point out that we have lost a lot of crop protection tools and inputs as well for managing pests on our operations.

So I guess I would say that, yes, we did see in the last farm bill some fairly modest changes to the raw cane loan rate, as well as the refined beet rate. Certainly, I know our producers and our members are looking at providing recommendations to the Committee as we go forward, and we are still in the process of pulling those lists together, and certainly we will be providing that as we get closer into this year. As you have continued discussions, we would be happy to follow up with those.

But I think what I had mentioned in my testimony was that it is clear that the loan rate is not matching current cost production. Current input costs have been going up. I think that would be something that folks would echo here. Of course, sugar doesn't participate in ARC/PLC, so we have had a lot of discussion about that as well, talking about reference prices. It is much the same with respect to reference prices in current costs in the operation. So, again, thanks for the question, and certainly we will be looking forward to putting forward our recommendations a little bit further into the summer here as we continue to meet and develop what those might be.

Mr. LAWSON. Thank you very much, Dr. Johansson. As a Congressional Member of Florida, I know how important it is for disaster assistance to quickly and effectively be distributed to farmers and producers. The question here for all witnesses, for your commodities, what would a permanent disaster assistance program look like, and how should it work in conjunction with the current authorized Title I program?

Dr. JOHANSSON. Well, let me just say real fast, and I will let my other panelists from other commodities chime in, this is a question that we have talked a little bit about today, and certainly one thing that everybody is interested in seeing is if there are additional standing disaster program developments in the next farm bill, that they be ones that are consistent with crop insurance that maybe also encourage additional coverage potentially, as well as looking at some commodities that may not be as well served by the current crop insurance products. Some commodities, maybe specialty crops, certainly sugarcane and sugarbeet, would like to see some additional improvements in some of those products available to us at a more reasonable price. But I will see if other panelists want to add to that.

The CHAIRMAN. Anyone?

Mr. LAWSON. Mr. Chairman, I guess no one else wants to respond, and with that, my time is running out. I yield back.

The CHAIRMAN. Thank you, Mr. Lawson. And, ladies and gentlemen, this brings our hearing to a close, and I can't thank you

enough, our Committee can't thank you enough. Your wisdom, your guidance, your testimonies, have been just extraordinary, and very helpful to us. The input you have shared with us today is so critical to our Committee's effort to oversee this farm bill. We are in the 2018, and as we prepare for the next farm bill, 2023, and we want to thank you for that.

Farmers across our nation now are experiencing—they have experienced so much, and we must respond, and make sure that our farmers, our producers, have all of the means necessary to do the critical job that we are calling upon them to do. Our food supply is critical not only to us, but the entire world. And as we look at, and as we examine the impact that this Russian evil business is doing in Ukraine, it impacts us drastically, and we have to resolve our nation, our leadership, the leadership of the European Union, and all over this world we have to raise a loud voice and stop Russia from doing, and continuing, this evil work, killing women and children indiscriminately. It is enough to break our hearts. But we have to understand the role that we have in providing the food supply most critical. There is no nation on Earth that has this weight on the shoulders of their farmers as we do, because we have the world's greatest and most impactful agriculture system.

And so we want to thank you so very much again, and over the coming weeks and months I look forward to continuing to engage with you, and all of our stakeholders, on the options we should look at for our next farm bill. But you have shared with us what works and what does not work. We are on a journey here, and it is an exciting one, but it is also one where the world is indeed depending upon our agriculture system to be strong. And we are committed to doing that, and you all have helped us greatly today. And from the bottom of my heart, and the hearts of those of us on this Committee, we thank you for taking time out of your busy schedules to share with us your valuable testimony.

And now, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member. And now this hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 1:30 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. AUSTIN SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

December 16, 2021

Dear Mosaic Company,

We write to express our concern with your company's trade practices. As the second-largest phosphate fertilizer producer in the world, Mosaic has almost single-handedly erected an insurmountable tariff barrier to keep its top competitors in Morocco and Russia out of the U.S. phosphate market.

Mosaic's corporate affairs spokesperson recently told Brownfield Ag News that the company is trying to keep prices rational. Saying, "Prices are set essentially by the global supply and demand picture . . . we don't dictate prices."

Yet, thanks to Mosaic's petition, only 15% of phosphorous imports now come into the U.S. without tariffs. And experts say that using Commerce and ITC to manipulate the supply curve does indeed dictate price to farmers.

According to farm economist Bob Young's estimate, "the economic impact of applying countervailing duties of between 30% and 70% on phosphate imports would equate to roughly \$480 to \$640 million in added fertilizer bills on U.S. farmers."

You'll agree that Mosaic now has a much healthier balance sheet than it did in 2017-18, when you and J.R. Simplot began pursuing the CVD case. You'll also concede that you did not anticipate China's phosphate export ban, the COVID-19 black swan event, rising natural gas prices, a historic supply chain disaster and Hurricane Ida.

Mosaic's posture to date has been a masterpiece of irresponsible corporate social responsibility. But it now has an elegant way to reverse course given these exceptional circumstances.

We ask that you voluntarily withdraw your countervailing duties and allow critical supply back into the U.S. at a time of inadequate supplies and soaring phosphate prices.

Precedent exists for reaching a voluntary settlement. For instance, in August 2019 the U.S. tomato industry resolved its anti-dumping dispute with Mexico voluntarily rather than escalate tensions and further disadvantage producers on both sides of the border.

We look forward to your swift action to withdraw the CVDs. In the meantime, please be advised that we will relentlessly pursue a resolution on this issue.

Sincerely,



CHARLES RING, *President*,
Texas Corn Producers Association



JAY SCHUTTE, *Board President*,
Missouri Corn Growers Association



ROBERT GORDON, *Chairman*,
Texas Corn Producers Board



WAYNE KIRBY, *President*,
Virginia Grain Producers Association



ROB HANSON, *President*,
North Dakota Corn Growers Association



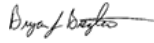
ANDY JOBMAN, *President*,
Nebraska Corn Growers Association



MARK HOFFMAN,
Wisconsin Corn Growers Association



RANDY POLL, *President*,
Michigan Corn Growers Association



BRYAN BIEGLER, *President*,
Minnesota Corn Growers Association



RODNEY HARRELL, *President*,
Georgia Corn Growers Association



BRENT ROGERS, *President*,
Kansas Corn Growers Association



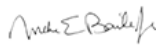
SETH PRITCHARD, *President*,
New York Corn and Soybean Association



LANCE LILLIBRIDGE, *President*,
Iowa Corn Growers Association



RODNEY HAHN, *Vice President*,
Colorado Corn Administrative Committee



MELVIN BAILE, *President*,
Maryland Grain Producers



MARTIN MARR, *President*,
Illinois Corn Growers Association



JEREMY WILSON, *President*,
Alabama Soybean and Corn Association



JUSTIN RIVERS, *President*,
South Carolina Corn Growers Association



HEATH HERRING, *President*,
Louisiana Corn Growers Association



BEN KLICK,
Ohio Corn and Wheat Growers



MIKE BEARD, *President*,
Indiana Corn Growers Association



SCOTT STAHL, *President*,
South Dakota Corn Growers Association



RICHARD PRESTON, *President*,
Kentucky Corn Growers Association

SUPPLEMENTARY MATERIAL SUBMITTED BY ROBERT JOHANSSON, PH.D., DIRECTOR OF
ECONOMICS AND POLICY ANALYSIS, AMERICAN SUGAR ALLIANCE

Insert

Mr. CARBAJAL. Thank you, Dr. Johnson—Johansson. Sorry for screwing up your name there, I apologize. With the COVID-19 pandemic impacting our supply chain, and disrupting so many sectors of our economy and agriculture indus-

try, can you share with me how these challenges have impacted the domestic sugar industry?

Dr. JOHANSSON. That is another great question, thanks for asking. Of course, COVID-19 has—the pandemic has affected all producers in all their markets, both here in the United States, and certainly we have seen abroad, and, of course, the conflict that we are seeing between Russia and Ukraine is obviously going to be putting a lot of energy markets, fertilizer markets, and commodity markets in turmoil. Over the past couple years, certainly, our sugarcane and sugarbeet producers have been cognizant of this issue, and have put in place safety measures at all of our mills, refineries, processing facilities, to safeguard all of our employees, and we have done a very good job of that.

Certainly we have been concerned with labor in general. It is a big issue for us, as it is for a lot of other commodities that are represented here, and we are continually trying to both provide safe working conditions for all of our employees, but also secure labor, whether that is through the guestworker programs, or other labor sources here in the United States. Of course, the labor market is extremely tight right now.

We certainly would support, and look towards Congress to working on the issue of improving labor supply. But ultimately, with the pandemic, yes, hopefully, as has been mentioned, we are coming out of that, returning to more normal conditions, would look forward to hopefully joining you next time in person, and would be able to provide additional responses in writing later.

Thank you for your excellent question, Congressman Carbajal. I will add to my response from the hearing.

As we noted in our June 2021 response to USDA's request for information (<https://www.regulations.gov/comment/AMS-TM-21-0034-0437>):* “. . . The structure of the domestic sugar industry in the United States was resilient in meeting the joint challenges of adverse weather in 2019, which lowered domestic sugar stocks, and the COVID-19 pandemic in 2020, which shocked consumer demands in multiple ways. The U.S. sugar supply chain is deliberately configured to withstand such shocks, which are all too common for agricultural commodities . . .” In that request, Secretary Vilsack highlighted that food and agricultural commodities, such as sugar, are ‘critical and essential goods for national and economic security.’ Sugar is an essential ingredient in food manufacturing.¹ Without reliable supplies of sugar, it is likely that several food manufacturers would have had to idle operations in 2020, resulting in lost jobs and shortages of staple goods at grocery stores at a time when consumers needed those more than ever, due to the closure of most food service establishments. In short, U.S. sugar policy helped ensure a resilient U.S. food supply chain during the pandemic.

By way of background, beet sugar is produced in 11 states, primarily in the north, because cold winter temperatures permit beets to be stored outside with minimal loss of their sucrose content. Beet sugar primarily serves the interior of the country. This source of sugar is located near major food manufacturers, who have facilities close to other agriculture raw materials. Sugarbeet production in California is in the Imperial Valley and they harvest just enough each day in the spring and summer to feed the factory. That factory is incredibly important to California because it is a reliable local supplier to meet the needs of millions of people throughout California as well as the Southwestern U.S. Sugarcane is grown in three states, processed into raw sugar, and then refined at eight coastal refineries like C&H in Crockett in the Bay Area. Cane sugar primarily serves the heavily populated coastal regions of the country.

We also experienced disruptions in demand during the COVID-19 pandemic that are now beginning to return to pre-pandemic consumption patterns. During the 2020 pandemic, consumer hoarding behavior was observed at the retail grocery stores and supermarkets as essential food and consumer goods supplies were overwhelmed by spiking demands. Ingredients for baking and cooking (sugar, flour, oils, etc.) were top food items in demand as retail food service shuttered overnight. To meet those challenges and to provide sufficient supplies to food manufacturers, during March–May 2020 the domestic sugar industry put an equivalent of an *additional* 50 million 4 lb bags on grocery shelves in record time to meet consumer needs and provide a calming effect of a resilient supply chain.

* **Editor's note:** the referenced comment letter is retained in Committee file.

¹A reported 74 percent of consumer-packaged foods contain caloric sweeteners (Ng, S.W., M.M. Sliming, and B.M. Popkin. 2013. “Use of Caloric and non-caloric sweeteners in U.S. consumer packaged foods,” *Journal of the Academy of Nutrition and Dietetics*, Vol. 112(11): 1828–1834.

Editor's note: the referenced article is retained in Committee file.

As the economic disruption from the pandemic begins to dissipate, there remain significant bottlenecks in the supply chain for inputs as well as for deliveries. Those bottlenecks are raising prices not just for sugar imports, but also for inputs needed to grow our crops, and are adding to the costs of our just-in-time delivery system for providing adequate supplies of sugar to our customers throughout the marketing year.

SUPPLEMENTARY MATERIAL SUBMITTED BY NICOLE BERG, VICE PRESIDENT, NATIONAL ASSOCIATION OF WHEAT GROWERS

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Ms. SCHRIER. Thank you, and thank you for those comments. We agree. As we look ahead to the farm bill, are there some ways specifically that we can sustain some necessary changes for you? In addition to that gap, you talked about a year and a half to 2 years of getting funding reimbursed. Are there other ways that we can help?

Ms. BERG. I think streamlining. I know that it was discussed earlier today. Streamlining the process would help farmers. Also in education and outreach to farmers of when is the signup. I think we could do better in promoting and working with—maybe it is the wheat growers—helping promote the message of get in and sign up. I think that that would be an important—

The CHAIRMAN. The witness could continue with a written response to her.

Thank you for allowing me the opportunity to further discuss this topic. Streamlining the process would definitely help farmers. Staffing levels in USDA offices throughout the country have been understaffed dating back to pre-pandemic times. We applaud the USDA for working diligently to fill these positions and understand they are working as hard as possible under hiring authority to fill them. However, we believe that Congress should take a serious look at the incentives that USDA can provide and the process through which potential employees must go through to fill the positions. Further, promotion and messaging on sign-up dates and deadlines is extremely important. Farmers have some of the busiest schedules and many deadlines unfortunately come and go with some farmers not remembering or being unable to take the time to make the trip to the USDA office to complete paperwork. The Committee and USDA should seriously consider how to be more innovative in their messaging and customer service in delivery and sign-up of programs. Last, these programs can sometimes be confusing and time-consuming to figure out what decisions and programs are the best for their operations. We encourage the investment into models and technical assistance to help farmers make the best decisions. Land Grant institutions and their extension services are extremely important in this aspect. We encourage greater collaboration between Federal agencies and these extension services to provide as much support and technical services as possible to help farmers utilize the valuable safety net tools that this Committee has already provided.

SUPPLEMENTARY MATERIAL SUBMITTED BY JACLYN D. FORD, DELEGATE, NATIONAL COTTON COUNCIL

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Mr. BISHOP. . . .

You talked about the need for either a permanent disaster program, or other policy options to address disaster conditions, Ms. Ford. Can you talk about what disaster aid could look like, and how Congress could be helpful in expediting, in the processing of that relief? And, Mr. Coleman, could you weigh in also on what permanent disaster relief would look like for specialty crop producers? Ms. Ford?

Ms. FORD. Yes. I am not really prepared to answer that specifically but I will get with the Council and get you an answer to that.

The need for *ad hoc* disaster assistance for crop and livestock producers has become apparent in recent years due to significant natural disasters and major weather events ranging from hurricanes to massive, long-term drought. These events create crop losses on a scale and magnitude that crop insurance in its current form is not solely equipped to manage. Therefore, we believe there is a need for the Committee, in the upcoming farm bill development, to evaluate either including a permanent or standing assistance program and/or fund that would allow USDA to

quickly and efficiently respond when major natural disasters cause crop and live-stock losses in the future. One of the major drawbacks with the recent *ad hoc* assistance is the significant delay from the time loss to the time of producers receiving assistance. In some cases, this timeframe has approached 2 years, which is extremely difficult for a producer and their lender to withstand financially. We recognize there are a lot of unanswered questions about how to structure and fund such a program for USDA to utilize and there is the issue of finding necessary budget resources for this purpose. Related to this topic of disaster assistance, we also believe the Committee should evaluate existing crop insurance policies and options and consider if additional resources could be invested in existing or new policies and/or endorsements that would allow producers to affordably protect a greater share of their risk with insurance, thereby minimizing their exposure to loss in times of a major natural disaster.

SUBMITTED STATEMENT BY MARCELA GARCIA, PRESIDENT AND CHIEF EXECUTIVE
OFFICER, U.S. RICE PRODUCERS ASSOCIATION

The U.S. Rice Producers Association represents rice producers in Arkansas, California, Louisiana, Mississippi, Missouri, and Texas. It is the only national rice producers' organization comprised by producers, elected by producers, and representing producers in all six rice-producing states.

Title I has been essential for our rice producers. Eighty-five percent of rice consumed in the United States is grown in our six member states. Recent market conditions have not favored our farmers and the Title I programs, particularly the Price Loss Coverage (PLC) program, provide security to our producers to ensure they can continue to operate. Around 99% of short and long grain rice and close to $\frac{3}{4}$ of Temperate Japonica are enrolled in the PLC program. This program is essential to our producers, but we urge the Committee to modernize/update it to reflect current conditions and protect the American rice industry going forward.

While other agricultural commodity producers have seen recent surges in price, rice producers have not been so fortunate. Of all the PLC programs, rice is the only one of the major grains that is receiving a PLC payment for the 2021 crop indicating it is the one not enjoying higher prices. Rice prices have only increased by 8% since 2020, whereas others have seen increases of over 50%. This slight increase in price has resulted in a decrease in the amount of PLC benefits available to our producers relative to previous years, with the payment rate per pound for rice expected to be $\frac{1}{3}$ lower than last year. The value of American rice production has fallen from \$3.2 billion to \$2.9 billion from 2020 to 2021 and as the challenges our farmers face will only continue to grow, strengthening the safety net provided by the PLC program will be essential to preserving American rice production.

Rice producers have also been impacted by the surge in production costs, both for inputs and labor. Our rice producers have seen a sharper increase in the cost of fertilizer than other commodity producers and this gap is widening. As prices for rice are only increasing at a moderate rate, our producers will need additional support to remain in operation.

Title I allows our producers to compete in an often-unfair global market. Of all the major rice exporting countries, only the U.S. does not enjoy developing country status and we are subject to lower prices because of the farm subsidies that developing countries are using to subsidize their farmers while keeping prices depressed. As other countries over-subsidize their rice production, American rice producers are disadvantaged. We cannot control what these other countries do, so we must continue providing stability to our farmers so they can compete in the international market. The safety net provided through Title I gives assurance to our producers that they can compete and ensures the United States remains relevant in the international market.

As the Committee considers the 2023 Farm Bill, we urge Members to update these safety net programs to better reflect the economic conditions our rice farmers face. These programs are critical to our producers' operations and much has changed in the past year, let alone 5 years. As the challenges and uncertainty facing our producers rise, it is critical our farmers know they have sufficient support to continue operations. We thank you for considering our testimony.

SUBMITTED QUESTIONS

Response from S. Brad Doyle, President, American Soybean Association

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. We appreciate the Administration and Congress' ongoing efforts to better understand needs and improve accessibility of programs across USDA. We are fully supportive of and respect the self-examination process in which USDA is readily participating. Members of USDA's Equity Commission and Subcommittee on Agriculture are undertaking a thorough and thoughtful review as they develop recommendations on policies, programs, and actions needed to address racial equity issues and broader systemic equity issues at USDA.

Encouraging diversity and eliminating systemic issues that facilitate discrimination are important tenets of ASA's new strategic plan, and our organizational policy and procedures. We all have a responsibility and a role to play in eliminating racial injustice. These changes start from within, and examples of how ASA is effecting positive change are:

- ASA has introduced interactive curriculum to its programs—both board of director and staff training, and our leadership tracks—on, for example, the topics of unconscious bias, privilege, and having thoughtful, impactful conversations on race, inclusion and diversity.
- ASA's new 5 year Strategic Plan implemented this fiscal year includes measurable objectives and action items to guide us as we aim to be more inclusive.
- Our leadership programs and communicators programs provide avenues for training and reaching diverse audiences in agriculture in a positive way.

Perpetuating environments that do not support all people is not what modern agriculture represents. We are cutting edge in biotechnology, production practices, and so much more. We have demonstrated that we can be on the front end of change, and we strive to be better at understanding what issues exist in agriculture so that we can be forward thinking and consider the best potential solutions. We look forward to working with Congress and the Administration to improve equity and accessibility.

Question Submitted by Hon. Cheri Bustos, a Representative in Congress from Illinois

Question. Mr. Doyle and Mr. Edgington—In both of your testimonies, you mention the importance of base acres for growers who would like to participate in commodity programs. I have personally heard stories of farmers who have purchased land that was not previously enrolled in USDA programs. Thus, they were not permitted to enroll that new land in Title I commodity programs. What suggestions do you have on how we can look to potentially expand base acres in situations like these in a responsible and efficient manner?

Answer. As my testimony highlighted, there is a significant disparity in soybean planted acres compared to base acres. The inability to access a meaningful safety net by soybean producers is a serious concern. Our farm bill survey results showed that 84% of respondents would like the option to update base acres.

In addition to the scenario you have shared, others are outlined in my testimony. This includes a young, beginning farmer who has only 10% of base acres on his or her farm; a farmer who has implemented conservation practices which enable cultivation of acreage without base; small farmers who have transitioned out of tobacco production and into new crops eligible for base acres; farmers who have exited the dairy business and moved into production of other crops eligible for base; and farmers who have lost cropland to residential or industrial development and have sought other areas to cultivate. There likely are more scenarios that exist in farm country that justify a producer option to update base acres, on which Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) benefits are made.

Our organization looks forward to working with you to develop a solution, both to the base acre disparity and the current insufficient reference price for soybeans, that can be adopted in the next farm bill and implemented by USDA to strengthen the safety net for soybean farmers.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. The farm safety net is critically important. Without the farm safety net provided by crop insurance and Title I, lenders would not have the confidence to extend credit to farmers each year—and farmers would not have the resources to produce food, fuel, feed, and fiber. Such a scenario would impact domestic food production, as well as have a ripple effect throughout rural economies. We are unfortunately witnessing the challenges to food production and food security unfold in Eastern Europe.

In addition to the United States, the leading producers of soybeans are Brazil, Argentina, India, and China. The U.S. Soybean Export Council (USSEC), which is the export arm of the U.S. soybean industry, has shared that over the last decade many export partners show preference to U.S. soy because of our sustainable production practices, environmental protections, and regulatory approaches relative to other suppliers. Many of these production practices were initiated in the U.S. during the Dust Bowl. The subsequent support provided for conserving sensitive areas and technical and financial support for transitioning to a variety of conservation practices through Title II and private investment have helped put the U.S. in this position. We continue to strive for improvement.

Response from Robert Johansson, Ph.D., Director of Economics and Policy Analysis, American Sugar Alliance

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. On behalf of America's sugar producers, I would like to thank Congressman Rush for raising the important issue of racial diversity in agriculture and the disparity experienced by farmers and ranchers of color. All of America's farmers and ranchers, including historically underserved farmers and ranchers, are critical to a diverse and robust food supply. The American Sugar Alliance is dedicated to serving all of America's sugar farmers, including producers of color. As an industry, and through our partnerships with organizations such as the Food and Agriculture Climate Alliance (FACA), we support initiatives to engage and enroll historically underserved farmers, ranchers, and forest owners in USDA programs.

On our farms here in America, we are grateful for the many multi-generational farm families growing sugar crops. Those include Black, Indigenous and Hispanic farmers. America's strong farm and trade policies support those sugar farmers and ensure that they can stay in business to pass along the family farm to the next generation, continuing their farming legacy.^{1*}

At our processing facilities, investing in our people is a priority and a key part of our mission to produce sugar sustainably. America's sugar companies have invested in training and scholarship programs to encourage a skilled and diverse workforce. Even then, we still need more workers on the farm, in the factories and transporting our crops to the mills and factories and sugar to our customers.

We continue to look for and implement outreach programs to attract a diverse workforce for these unfilled needs. Companies have also sought to use their reach and influence to make a difference in our communities and neighborhoods. Many of our companies serve their neighbors through charitable food donations, support for community organizations and schools, and volunteer opportunities. Those efforts not only help our neighbors but allows the community an opportunity to learn what we do, and hopefully attract applicants that would not have previously considered a career in agriculture.

America's sugar industry welcomes and celebrates farmers and workers from diverse backgrounds. Across the country, from very rural areas to some of the largest

¹ See for example, <https://agclimatealliance.com/2021/11/01/comments-on-usdas-csaf-partnership-initiative/>.[†]

*Footnotes annotated with † are retained in Committee file.

cities, our industry provides good jobs with good wages and benefits, and real opportunities for growth. Many of our farms and processing facilities are in areas where jobs and economic growth are very limited. Weakening sugar policy would outsource good-paying jobs as well as sugar farms overseas to foreign countries who often exploit their workers and farmers.

As Congress deliberates the next farm bill, we encourage Congress to maintain a strong U.S. sugar policy to provide farmers and workers with necessary stability and allow our industry to continue investing in initiatives that yield a more diverse workforce. We also encourage Congress to work alongside the U.S. Department of Agriculture to ensure that all farm bill programs are available and accessible to all farmers.

Questions Submitted by Hon. Ann M. Kuster, a Representative in Congress from New Hampshire

Question 1. Dr. Johansson, are there any short-term steps your industry would find agreeable to alleviate the tightness in the current sugar market? More specifically, would you oppose measures such as:

- a. Relaxing artificial calendar restrictions to permit routine late and early entry of sugar under quota;
- b. Eliminating the requirement for the October 1st TRQ to be set at minimum; or
- c. Directing USDA to work with USTR to regularize the reallocation of import quota shares among countries, recognizing that many countries with U.S. quotas no longer even produce sugar

Is it the position of the American Sugar Alliance that these measures would jeopardize the American sugar industry?

Answer. Thank you for your questions, Congresswoman Kuster.

First, we would not characterize the current market as “tight,” the current projection of stocks-to-use for the 2021/22 crop year is 13.6 percent, which is due to the requirements built into the Antidumping and Countervailing Duty Suspension Agreements with Mexico that were necessary to prevent illegal dumping of sugar on America’s sugar market. And while we all have seen first-hand the impacts of rising inflation on our farms, companies, and households, it should be pointed out that the cost of sugar has barely risen over the past year.

Second, we would oppose those three measures for several reasons: they would reintroduce uncertainty in program management; possibly depress market prices, making it harder for our industry to invest in maintaining a just-in-time delivery supply chain; and potentially threaten the ability of some farmers to remain in business.

For background purposes, recall that all outside investors have exited the sugar industry. Beet farmers mortgaged their farms to buy sugar companies to avoid further closures. Half of the revenue from sugar sales go to investing in and maintaining a resilient supply chain for sugar, such as building processing and storage facilities to hold inventory for our customers. The farmer gets whatever is left to invest in his or her farm operation and to purchase inputs for the next season. Given the inflated cost of inputs in 2021 and 2022, increasing interest rates, and flat sugar prices, some of our growers are struggling to cover their costs.

In conclusion, the current sugar program provides safe, reliable, and sustainably produced sugar to corporate customers as well as to the American consumer directly in the grocery store. Consumers prefer American-made sugar and the price on the store shelf has remained relatively constant in nominal terms over the past 10 years at about 70¢ per pound (and is actually falling in real terms). And USDA has been administering the sugar program, as directed by Congress, at zero-cost to taxpayers for 17 of the past 18 years and is expected to do so for the next 10 years, according to USDA. The one exception is when Mexico was found to have illegally dumped sugar onto the U.S. market at below Mexico’s cost of production.

Given the global supply chain uncertainties we have and are experiencing as a result of [COVID], international conflicts, shipping disruptions and climate change, Congress should be looking to strengthen the safety net for our American farmers, not weaken it.

Question 2. Dr. Johansson, the American Sugar Alliance states that it supports removing sugar subsidies entirely (or “zeroing them out”) only once every single country with sugar subsidies does the same. We all know that’s unlikely to happen any time soon. In the meantime, are there any changes your organization could support to make Federal sugar policy more transparent, fair and equitable for all stake-

holders involved? Can you point to any area where you think they may be room for good-faith compromise?

Answer. Thank you for your question, Congresswoman Kuster.

I would argue that Federal sugar policy is as transparent and, in many cases, more transparent than it is for other commodities in the farm bill. And I would also argue that it is fair and equitable for all stakeholders involved. Indeed, many in our industry who are struggling to afford current crop inputs or even find them at a reasonable cost, or the many farmers and factory workers who used to produce sugar in Hawaii, would argue that current policy is not fair and equitable for sugarcane and sugarbeet family farmers.

Your question about compromises related to the Zero-for-Zero concept for global sugar subsidies and distortionary practices indicates skepticism that other countries will ever stop utilizing self-sufficiency schemes that rely on government treasuries to subsidize production and dump excess production onto the world market. I believe that other countries are less likely to stop over-subsidization and dumping behavior if the United States first unilaterally removes protections.

We tried to partially dismantle U.S. sugar policy earlier and it was a disastrous failure and cost our farmers billions of dollars. Under the original NAFTA, Mexico methodically increased subsidies to boost its production acres to take advantage of growing access to the U.S. market. In 2013 Mexico had a bumper crop and illegally dumped that surplus sugar on the U.S. market at prices below its cost of production, a clear violation of U.S. trade laws. As a result, prices in the U.S. crashed and producers forfeited sugar because they were unable to repay their loans with interest, despite being among the most efficient and sustainable sugar producers in the world. The lost revenue devastated our farmers and was key in driving Hawaiian production out of business only to benefit Mexico. That illegal trade practice was resolved through the Antidumping and Countervailing Duty process administered by the Department of Commerce. However, the example remains as a stark reminder of what happens when we allow surplus, dump market sugar to flood the U.S. market at predatory, anti-competitive prices.

As another example, I would point to the recent finding by the WTO that the Government of India has been over-subsidizing its sugar sector and then subsidizing the export of its surplus sugar. Of course, the Government of India claims that the WTO findings were erroneous and unacceptable. It is clear from this example that governments around the world will continue to utilize subsidies or other supports to benefit their sugar sectors, furthering sugar being the most volatile and distorted commodity market in the world. U.S. sugar farmers are among the most efficient and sustainable sugar producers in the world and can compete on a level playing field, but not against billions in subsidies and other hidden supports supplied by foreign governments.

Therefore, to complement the bipartisan Zero-for-Zero approach to eliminating sugar subsidies globally, the American Sugar Alliance recently released a policy statement outlining four recommendations to improve the effectiveness of the WTO. WTO reforms will make dismantling unfair trade practices and subsidies an attainable goal, laying the foundation for a less distorted and more predictable global market. We would also encourage other countries to improve their labor and environmental practices so that their sugar sectors can meet similar standards as those in the United States, Australia, and the European Union.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. On behalf of America's sugarcane and sugarbeet family farmers, I would like to thank Ranking Member Thompson for highlighting the importance of the safety net for farmers in general and how critical that safety net is for maintaining domestic food production and supporting national security. The main safety net for sugar producers is the Title I sugar program.

A key component of the sugar program is access to sugar loans. The Department of Agriculture provides processors of domestically grown sugarcane and domestic processors of sugarbeets interim financing through access to loans to at statutory loan-rate levels. The seasonal nature of sugarbeet and sugarcane crops requires sugar producers to store massive amounts of sugar until the market demands it. As our farmers produce and harvest their cane and beet, and as our processors and refineries use that feedstock to produce sugar for sale, those sugar loans are necessary to ensure farm and factory operations can continue even though the sugar is marketed throughout the year. This allows sugar to be stored after harvest when mar-

ket prices are typically low and sold later for just-in-time delivery to food manufacturers and retail consumers, when market prices are generally more favorable.

Loans are taken for a maximum term of 9 months and must be liquidated along with interest charges by the end of the fiscal year in which the loan was made. Unlike most other commodity programs, the sugar program makes loans to processors and not directly to producers. The reason is that sugarcane and sugarbeets, being bulky and very perishable, must be processed into sugar before they can be traded and stored.²

The loans are non-recourse, meaning that when a loan matures, USDA must accept sugar pledged as collateral as payment in full including interest, in lieu of a cash repayment of the loan, at the discretion of the processor. However, that has only happened in 1 year over the past 18 years, and because loans are repaid with interest, the sugar program cost to taxpayers was zero dollars for the other 17 years.

The one year we did see costs was when Mexico illegally dumped surplus sugar on the U.S. market at below its cost of production causing an artificially depressed price and forfeiture of sugar to the government. That cost our farmers billions of dollars in revenue and contributed to the loss of our Hawaiian sugar farmers, mills, and refineries. The subsidy/dumping problem was resolved in 2017 when the industry brought and won trade cases.

While vitally important to our industry, the loan rates for raw cane sugar and refined beet sugar have not kept up with inflation. As we see costs of production rising for all categories of inputs according to the USDA, the level of protection provided by those loans has declined in real terms.

Over that same time period, we have seen American sugar farmers increase production in the United States by 16 percent while land used for sugar production has fallen by 11 percent. Improvements in seed genetics, field machinery, and efficiencies in sugar processing facilities and refineries have all contributed to those improvements, which have helped our family farmers meet some of the strictest environmental and labor standards in the world. We know that many countries not only overly subsidize their sugar sectors, but they also do not adhere to the same standards that our producers do here in the United States.

Response from Nicole Berg, Vice President, National Association of Wheat Growers

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. Thank you, Congressman Rush, for allowing the National Association of Wheat Growers (NAWG) to continue this dialogue. NAWG's mission is to unite wheat farmers to promote policy efforts that create an environment that is conducive to the success of wheat farming in the United States. Our grower-led organization works to achieve that through advancing wheat through advocacy, alliances, and innovation. Since assuming the role of NAWG President on March 10, 2022, NAWG passed a resolution where we will be engaged and work collaboratively with organizations that seek to guarantee all farmers and ranchers are treated fairly and equally in farm programs and by Federal agencies regardless of race, color, gender, sexual orientation, age, national origin or ancestry, physical or mental disability, or veteran status. It is incumbent upon legislators and the executive branch to advance and implement public policies are accessible to all farmers. As we look towards re-authorizing the farm bill in 2023, I have begun outreach to other trade associations across the industry, including organizations that work to encourage the participation of historically disadvantaged farmers. It is important we as an industry work hand in hand to eliminate racial injustice and discrimination in our institutions. We also look forward to working with Congressman Rush and other Members of the House Agriculture Committee to ensure more transparency and equality in farm programs and the Federal agencies that implement them.

NAWG applauds the USDA and the work of this Committee for their work in establishing the Equity Commission and Subcommittee on Agriculture and appre-

² See <https://www.ers.usda.gov/topics/crops/sugar-sweeteners/policy/>.

ciates the work USDA is conducting through thorough reviews of their policies and programs. We look forward to working with the partners in this Commission to advance the equity of all our farmers.

Further, NAWG advocates for farm programs that will help all wheat farmers. U.S. wheat farmers produce the best, highest quality wheat in the entire world, and our minority farmers play a massive role in accomplishing that. We feel that tightening the farm safety net to allow fewer farms to fall through is the best way to ensure that our minority farmers are able to pass their farms into posterity. Policies that allow farms to be passed onto next generations of farmers affordably, allow our farmers to remain in business through down economic years and natural disasters, and help mitigate risk in one of the riskiest businesses in the economy, will help keep minority farmers on their land. We are committed to ensuring these programs are equitably implemented and leave no farmer behind and look forward to working with Members of this Committee to make that happen.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. Thank you, Ranking Member Thompson, for allowing the National Association of Wheat Growers (NAWG) the opportunity to discuss this vitally important topic. The farming safety net is vital in not only keeping farmers employed on their farms that have often times been in the family for multiple generations, but in ensuring that the United States has the most secure, safe, and affordable food supply. Never before have humans been able to produce this much food, using these few resources, on this little land. The safety net allows our farmers to engage their entrepreneurial spirit, take risks, try different practices, and ultimately create the best, most innovative food. This safe, secure, and affordable food supply comes with a significant amount of risk and cost. Input costs have risen dramatically since the start of COVID-19, while world events and drought over the last twelve months have created unprecedented market volatility. Without the safety net provided by the farm bill, many farmers would have been forced to exit the industry, putting the food supply at risk.

Russia and China are currently the two largest single country wheat producers in the world, according to the most recent *World Agricultural Supply and Demand Estimates* (WASDE) report from the USDA. These countries are not beholden to the same conservation or climate standards as U.S. farmers are, nor do they produce the high-quality wheat that U.S. farmers do. As this Committee discusses conservation and climate programs, it is important to understand that hindering the U.S. wheat farmer's ability to produce their products, which have long been grown under climate-smart practices that leave the ground in better condition to ensure their posterity are able to continue to produce, will allow our competitors to capitalize on our decreases in production. This will only hurt the environment and climate.

Response from Chris Edgington, President, National Corn Growers Association

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. Thank you for the question and opportunity to continue the conversation on this important topic. The National Corn Growers Association (NCGA) has adopted the mission to “sustainably feed and fuel a growing world” with the vision “to create and increase opportunities for corn growers.”

NCGA understands and recognizes that minority producers, including farmers of color, have faced discrimination, injustices, and barriers that other corn growers have not and do not encounter. Unfortunately, we understand these challenges continue today throughout agriculture and within the U.S. Department of Agriculture (USDA) programs and policies.

We are supportive of USDA's establishment of the Equity Commission and Subcommittee on Agriculture and recognize that the Commission was first authorized and funded by Congress. We appreciate the leadership of Dr. Jewel Bronaugh, Dep-

uty Secretary of Agriculture, and the external stakeholders who are conducting a thorough review of USDA policies and programs.

We look forward to the results and recommendations from this diverse group of agriculture leaders on how USDA and the programs the Department administers can advance equity and remove barriers to underserved communities.

As a grassroots membership organization, NCGA is committed to cultivating a diverse membership, workforce, and a culture of inclusivity and belonging. NCGA and our affiliated state associations and check-off organizations work together to help protect and advance corn growers' interests. Membership is to open all individuals without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital status, sexual orientation, or gender identity.

Our focus is on creating competitive market demand, promoting increased sustainable production, and strengthening customer and consumer trust. These efforts are intended to advance the profitability and prosperity of all corn growers across the country. However, we acknowledge that we have a responsibility and a role to play in eliminating racial injustice in our industry. We look forward to working with the Committee and Congress so that agriculture programs better represent and address the needs of all farmers and communities.

Question Submitted by Hon. Cheri Bustos, a Representative in Congress from Illinois

Question. Mr. Doyle and Mr. Edgington—In both of your testimonies, you mention the importance of base acres for growers who would like to participate in commodity programs. I have personally heard stories of farmers who have purchased land that was not previously enrolled in USDA programs. Thus, they were not permitted to enroll that new land in Title I commodity programs. What suggestions do you have on how we can look to potentially expand base acres in situations like these in a responsible and efficient manner?

Answer. Ahead of the 2018 Farm Bill, delegates for the National Corn Growers Association (NCGA) adopted broad policy that supports the update of base acres and yields for commodity programs when applicable. While NCGA does not currently have national policy that provides specific recommendations for changes to base acres, we also hear from growers who are in similar circumstances without access to the commodity Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs due to a lack of base acres.

NCGA grower led action teams and state associations, are continuing to study the issue, explore potential changes, and evaluate the pros and cons of changes, as part of our policy development process. Policy options under review and consideration range from a voluntary base acre update, base acre reallocation, to a mandatory base acre update. Each policy would have highly individualized impacts on producers at a farm-to-farm level as well as national budgetary scoring and baseline implications for program crops. We look forward to working with the Committee as NCGA develops more formal policy priorities ahead of the next farm bill.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. The National Corn Growers Association (NCGA) and our members are very mindful of the need to balance a dependable domestic food and energy supply, long-term farmer profitability, and environmental stewardship. We appreciate the Committee's consideration of our views regarding USDA commodity programs and the need for producers to have access to effective risk management tools, including Federal crop insurance.

The producer safety net programs, authorized and updated through farm bills, help growers proactively manage their risks and respond to multiple challenges impacting farmers and the agriculture industry. NCGA continues to focus on accessible and defensible tools geared towards revenue, which factors in both yield and price risks that growers may face throughout the growing and market seasons.

NCGA formed a Corn Sustainability Advisory Group in 2019 to proactively drive the U.S. corn sustainability story and ensure continued demand for the crop. In June 2021, NCGA solidified corn farmers' commitment to environmental, economic, and social sustainability with the release of U.S. Corn Sustainability Goals and the first *U.S. Corn Sustainability Report*. The report documents a long history of continuous improvement by U.S. corn farmers and the goals set targets for further progress over the next decade.

The United States is the largest producer of corn globally, followed by China, Brazil, Argentina, and Ukraine. In terms of exporting markets, the U.S. remains

competitive with other corn exporting countries and will continue innovate and implement technology and practices that make U.S. corn production efficient and environmentally and economically sustainable.

Response from Jaelyn D. Ford, Delegate, National Cotton Council

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. Thank you for this question and for the opportunity to provide some input on this important issue. The National Cotton Council (NCC) recognizes that minority producers have and continue to face discrimination and barriers in agriculture and in working with USDA to access programs.

Membership in the National Cotton Council is open to all U.S. cotton producers and individuals operating across the other six segments of industry we represent. We are a grassroots membership organization, with a diverse workforce, and a culture of inclusivity. NCC and our state producer interest organizations along with other national industry interest organizations work together for the benefit of all the individuals in the U.S. cotton industry without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital status, sexual orientation, or gender identity.

More recently, NCC has been communicating with the National Black Growers Council and has participated in a number of their regional field days and their most recent annual meeting last fall. As part of the industry's commitment to sustainability, through the U.S. Cotton Trust Protocol, we are planning and conducting specific outreach to the minority producer community to assist them in enrollment to the Protocol, which is intended to help cotton producers better market and promote their cotton to our customers and consumers.

We plan to continue our outreach and engagement with the National Black Growers Council as their membership includes a number of cotton producers, some of whom are also members of NCC. And we have been exploring what other projects and activities with our agribusiness partners we can initiate and undertake to do more outreach and engagement with the underserved community. In addition, we look forward to working with the Committee going forward to help ensure that agriculture programs and policies are available and effective for all farmers.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. For cotton, the farm bill safety net that includes strong price protection in Title I along with crop insurance, and the marketing loan program are the key components critical to our industry, the financial viability of our producers, and the basis for marketing the U.S. cotton crop. U.S. cotton must compete in a highly competitive global market with a majority of U.S. cotton exported to textile producing countries. The U.S. is the third largest producer of cotton behind India and China, and the U.S. is the largest exporter of cotton, followed by Brazil.

In terms of conservation practices adopted by cotton producers and actions to address climate change, the U.S. cotton producer is leading the world in terms of a shrinking environmental footprint. This success is being highlighted and validated by the industry's sustainability platform, the U.S. Cotton Trust Protocol. While other countries such as Brazil are trying to position their producers and cotton production as meeting strong sustainability standards and metrics, their progress does not match the position of the U.S. where our growers are continuing to implement practices to make continued improvements in water efficiency, soil health, energy efficiency, and greenhouse gas emissions.

Response from Verity Ulibarri, Member, Farm Bill Advisory Committee, National Sorghum Producers

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. Representative Rush, I thank you for this important question. I would like to note that during the hearing, because I was participating remotely, I was unable to clearly hear the question as it was asked at the time, but I am happy to provide a response to you now understanding its full context.

As a female farmer and rancher of Hispanic descent, I have seen behavior that is at the root of your concern. However, I can also say I have not allowed it to diminish my hopes, and I also would say it has not, in fact, diminished my prospects for success. I believe through hard work, honest dealings and “sticktoitvity”, there are no cultural constraints that cannot be overcome. This is among the great blessings of living and working in the United States of America. With that said, agriculture is a tough business with no guarantee of success.

While I believe there are a number of programs and policies that exist to help address some of the systemic issues expressed, and I personally know historically underserved individuals who have benefitted from those programs, I also believe examination of how we can continue to improve and create a more inclusive industry that supports all people who want to be a part of modern agriculture is necessary.

National Sorghum Producers has worked hard to ensure our leadership represents all sorghum farmers. We support our sister organization with the Leadership Sorghum program, established almost 10 years ago, and it has served as a tool to identify and recruit leaders who represent diverse ethnicities, races, genders, ages, growing regions and practices.

We are also proud of the level of diversity represented in STEM careers in the sorghum industry. We invest in students as up-and-coming researchers, farmers and young professionals through efforts conducted by National Sorghum Producers and the Sorghum Foundation, and we remain engaged with these research professionals at private and public entities as they are critical contributors to the success of sorghum farmers and the agriculture industry.

On behalf of the National Sorghum Producers, I thank you for your passion and leadership, and we look forward to working with Congress further to examine and update future policies that ensure working in agriculture is a meaningful and fulfilling way to live, for all people who want to be a part of it.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. As we look at the situation in Ukraine and Russia right now, I think we are all reminded of the importance of a strong domestic safety net and maintaining our U.S. food supply. This is a key priority for my farm and for National Sorghum Producers as we evaluate the farm bill and components under Title I, in addition to crop insurance. It’s imperative we safeguard both these program titles for our national security and the economic viability of U.S. farmers and ranchers.

The U.S. leads the world in sorghum production and exports. From an export standpoint, Brazil is the fastest growing competitor, but as we look at acres in our country side-by-side to those in Brazil, U.S. sorghum farmers employ conservation tillage methods on 74 percent of all sorghum acres, whereas Brazil is destroying one of the world’s largest carbon sinks. Nigeria, Ethiopia, Sudan, and Mexico follow the U.S. in total acres, but production and efficiency to that of the U.S. sorghum farmer is unmatched. Sorghum’s natural characteristics help it protect and build soil health by retaining moisture and nutrients. It’s a water-smart, climate resilient crop, and it conserves our precious natural resources, adapting to both heat and drought, making it a reliable and responsible option for U.S. farmers and consumers alike.

Response from Clark Coleman; on Behalf of National Sunflower Association, National Barley Growers Association, U.S. Canola Association, and USA Dry Pea and Lentil Council

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. I do not have the answer to combating historic discrimination faced by black and brown farmers. This is an issue that goes beyond any specific crop or organization. There are significant barriers to entry for farming and those are certainly greater for minorities. The organizations that represent the crops that I grow need more participation and resources and do not have the luxury of excluding anyone.

Discrimination and prejudice absolutely should not be tolerated in any government program, any organization, or any individual. USDA employees at all levels, from the county offices to the top leadership, must ensure that programs are inclusive, accessible to all, and administered equally for all. USDA recently launched its equity action plan that seeks to increase access to Federal programs and improve relationships with minority groups and Tribal nations. I look forward to the recommendations expected later this year and next year and welcome suggestions for ways that I and the organizations that represent me can be proactive in promoting and supporting greater diversity and inclusiveness in agriculture.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. The experiences of the past few years certainly demonstrate the importance of the farm safety net and maintaining domestic food production. The COVID pandemic and supply chain disruptions, and now the war in Ukraine, reinforce how vital domestic food production is to our national and economic security. I would add that part of maintaining domestic food production is ensuring that we have reliable sources of fuel, fertilizer, chemicals and inputs necessary to produce our food.

On top of the pandemic and supply chain disruptions, in 2021 much of the country experienced significant natural disasters, including hurricanes in the Southeast, wildfires in the West and historic drought in the northern tier and Northwest. Without the safety net provided by Title I farm programs and crop insurance, many farms would simply not be able to survive. Conservation programs also play an important role as we must conserve our natural resources and ensure healthy soils and clean water in order to maintain abundant domestic food production.

For sunflowers, the major global producers are Ukraine and Russia. The Russian invasion and war in Ukraine has significantly impacted supply and prices. Sunflower production in the U.S. has been declining for the past 2 decades and the private-sector breeding research and investment has migrated to Europe and South America where sunflower production is increasing. Only one private company develops and tests a full product line in North America. The hybrid choices available to farmers this year and into the future will be hybrids adapted to other continents. Even prior to the war in Ukraine the National Sunflower Association was developing a request to establish a domestic research initiative with the USDA Agricultural Research Service (ARS) in the 2023 Farm Bill. We urge your consideration and support for this proposal.

For the other crops I grow, the global leaders in barley production include Australia, France, Ukraine, and Russia. Canola and rapeseed are produced largely in Canada, Europe, Russia, and Ukraine. While I do not know how each of those countries stack up from a climate and conservation standpoint, I believe U.S. farmers must continue to strive for improved efficiencies that will enable us to produce more on the same amount of land and with greater fuel and fertilizer efficiency. This will be necessary to feed the growing global population as well as conserving natural resources and mitigating environmental impacts.

Thank you again for the opportunity to participate in this hearing.

CLARK COLEMAN.

Response from Jennifer James, Member, Board of Directors, USA Rice

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

Answer. We appreciate and recognize the importance of this topic and thank you for the question. USA Rice supports diversity and inclusion in our industry.

The organization staff have all participated in diversity and inclusion training.

As a partner with the U.S. Department of Agriculture on a number of programs, USA Rice adheres to and takes seriously its equal opportunity and non-discriminatory statement: "USA Rice is an equal opportunity provider and employer. USA Rice does not discriminate based on race, color, national origin, religion, sex, gender identity, sexual orientation, disability, age, marital/family status or political beliefs."

USA Rice did not oppose U.S. Department of Agriculture loan relief and flexibilities for historically underserved producers.

USA Rice supports the efforts of the U.S. Department of Agriculture's Equity Commission, which was authorized and funded by Congress, and looks forward to the recommendations offered to break down the barriers experienced by minority farmers, including farmers of color.

We recognize that discrimination has occurred with various programs offered by the U.S. Department of Agriculture, and it is our hope that the commission provides insights and actionable items to ensure that discrimination does not occur.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

Answer. Thank you for this very important question.

The U.S. rice industry contributes more than \$34 billion to the U.S. economy annually and provides jobs for more than 125,000 individuals. There are over 5,500 rice farmers that grow rice across an average 2.8 million acres, and the industry produces 20 billion pounds of rice annually. Half of the rice produced in the U.S. is exported overseas to more than 120 countries. Approximately 80 percent of rice consumed in the U.S. is produced and processed domestically.

The Price Loss Coverage (PLC) program has been a simple and predictable safety net for rice farmers, and it functions as intended by providing assistance during times of declined prices that are beyond the control of a farmer.

PLC has supported rice producers in low price environments in the past, but the program has recently only provided some assistance to U.S. rice farmers as we compete with heavily subsidized and protected foreign producers of rice, such as China, India, and Thailand. These bad trade actors continue to distort markets around the world, dumping rice which results in many disadvantages for U.S. rice farmers. Unfortunately, the support from PLC has not kept pace with the level of support that foreign rice producers enjoy, and it isn't equipped to respond to a rapid increase in input costs or rising inflation.

PLC reference prices were developed using cost of production data from 2012. Rice farmers are facing input costs that are much higher than they were in 2012. The current PLC price for 2021 is projected to be around \$14/cwt, which is the current reference price. This means rice producers are at break-even prices according to 2012 cost of production.

Rice farmers are facing both stagnant commodity prices and disproportionately higher input costs. This combination is creating a severe financial squeeze that threatens the continued viability of U.S. rice farms. Rice prices have not kept pace with other major crops whose prices are much higher than they were in 2020. Similarly, the rise in input costs hit rice farmers disproportionately harder than other commodities.

A February 2022 study from Texas A&M University's Agricultural and Food Policy Center (AFPC) indicates rice farmers will realize more than \$500 million in losses this year. As a result, rice producers are in a worst-case scenario when looking at likely no support from PLC and the current cost of production.

China, India, and others are blatantly ignoring their World Trade Organization commitments and admit to highly subsidizing their producers while dumping rice on the global market. This further undercuts U.S. producers and threatens the viability of our industry.

India, the world's largest rice exporter, controls nearly ½ of the global rice trade. In 2020 and 2021, rice was the only staple food to not see significant world price increases because of India's record production and dumping of stocks on the world market. In 2021, India made up 40 percent of world rice trade. In 2010, India made up eight percent.

Additionally, Thailand and Vietnam, the second and third largest exporters, are also in excess of their commitments. According to the U.S. International Trade Commission, rice is the most protected and subsidized commodity traded globally. Last month, India announced it would subsidize fertilizer for its producers of rice, wheat, and sugar in excess of \$20 billion. This is in addition to agricultural subsidies already in place in India where rice producers' production costs are subsidized at upwards of 80 percent.

Without improvements to the PLC program in the next farm bill and needed action against India and others by our government at the WTO, rice farmers stand to lose. Current forecast production is an indicator. U.S. rice acres will decline to the lowest levels since 2017 according to USDA's March 2022 *Prospective Plantings Report*, however, as an industry, we feel this forecast was a high estimate and our acreage will be lower. As a result, production will be lower. Even though the 2021 crop was small and 2022 is forecast down again, prices have remained steady. Fundamentally, our market isn't reacting as it should be due to the actions of these bad trade actors.

U.S. rice farmers have been smart about the climate for decades and blazed a trail in conservation and sustainability initiatives. USA Rice is an effective collaborator when it comes to sustainability efforts given our history with the Rice Stewardship Partnership, a long-term partnership with Ducks Unlimited and the Natural Resources Conservation Service, established in 2013.

USA Rice strongly supports voluntary, incentive-based and cost share conservation programs, such as EQIP, CSP, and RCPP. Working lands programs not only address resource concerns, but they also increase productivity and sustainability by making cropland more diverse and efficient.

All segments of the U.S. rice industry are invested in sustainable production and milling practices because it is personal—rice farmers often live on the land they work, and rice mills are important economic drivers in their communities. Together they provide tens of thousands of jobs and inject billions of dollars into the economy—all while standing on a strong record of environmental stewardship.

Every day the U.S. rice industry strives to meet the demands of growing populations while increasing resource efficiencies at every level of the supply chain. The rice community is invested in using sustainable production and processing practices because it is personal. We provide for our families, serve our communities, protect wildlife habitats, and create jobs. Our stewardship is deliberate, ensuring a healthy, safe food supply, while improving the environment, and contributing to the local economy.

The climate advancements and environmental stewardship by rice farmers here in the United States is second to none. The U.S. rice industry has decreased greenhouse gas emissions by 41 percent since 1980, while also decreasing energy and water use and soil loss, and increasing land use efficiency.

Response from Meredith McNair Rogers; on Behalf of U.S. Peanut Federation*

Question Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question. During the hearing, I asked what I thought was a straightforward question: *what policies would our expert panel made up of commodity group witnesses recommend to rectify both the historic and current discrimination too often faced by farmers of color?* And yet, I was faced by defending silence.

So I would like to ask again for the record, *for all witnesses*, what specific policies would you recommend to combat the historic and current discrimination too often faced by Black and Brown farmers in your respective industries?

*There was no response from the witness by the time this hearing was published.

Question Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question. Can you talk about the importance of the safety net and maintaining domestic food production, and for your commodity, what other countries are major producers, and how do they stack up from a conservation and a climate standpoint?

A 2022 REVIEW OF THE FARM BILL
(RURAL DEVELOPMENT)

TUESDAY, MARCH 8, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COMMODITY EXCHANGES, ENERGY, AND
CREDIT,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Antonio Delgado [Chairman of the Subcommittee] presiding.

Members present: Representatives Delgado, Plaskett, Axne, Craig, Kuster, Spanberger, Pingree, Schrier, Fischbach, Austin Scott of Georgia, LaMalfa, Balderson, Cloud, Feenstra, Cammack, Thompson (*ex officio*), and Mann.

Staff present: Lyron Blum-Evitts, Emily German, Chu-Yuan Hwang, Paul Balzano, Caleb Crosswhite, Patricia Straughn, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. ANGIE CRAIG, A
REPRESENTATIVE IN CONGRESS FROM MINNESOTA**

Ms. CRAIG [presiding.] This hearing of the Subcommittee on Commodity Exchanges, Energy, and Credit entitled, *A 2022 Review of the Farm Bill: Rural Development*, will come to order.

Welcome, and thank you for joining today's hearing. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today. After brief opening remarks, Members will receive testimony from our witness today, and then the hearing will be open to questions.

Today's hearing with USDA's Under Secretary for Rural Development, Xochitl Torres Small, is an important opportunity for Members of this Subcommittee to evaluate the effectiveness of Rural Development programs and the implementation of the 2018 Farm Bill.

First of all, I would like to welcome Under Secretary Torres Small back to the Agriculture Committee. I think I speak for all of my colleagues when I say your presence on this Committee is missed, but we are grateful for your continued public service in your new role.

One of my goals for today's hearing is to highlight the strength of rural communities across America, and to dig deeper in rural communities like those in Minnesota's 2nd Congressional District,

so that we can take advantage of opportunities that Congress has provided in the 2018 Farm Bill, and subsequent legislation.

One aspect of today's discussion and an integral part of the work of the Rural Development team at USDA is that Americans should be able to choose where they want to live without having to make concessions on access to fast and reliable broadband internet, clean water, and affordable healthcare. Additionally, we must work to ensure that those diverse communities have the tools to thrive in a 21st century economy.

Part of achieving that goal is to strengthen the reliance of local supply chains so that they can better support the distribution of commodities in a diverse economy where residents have access to tools that will support their learning and success. Another part of that goal is continuing to invest in renewable energy found across rural America.

Ultimately, rural America knows best how to invest in their communities.

In this Subcommittee, over the past year we have heard from rural stakeholders and residents about the problems they encounter and the resources they need most. Under Secretary Torres Small, thank you for accepting our invitation to speak before us today as we conduct important oversight work in preparation for the 2023 Farm Bill. I value that experience and insight you bring, and I look forward to hearing your testimony.

[The prepared statement of Mr. Delgado follows:]

PREPARED STATEMENT OF HON. ANTONIO DELGADO, A REPRESENTATIVE IN CONGRESS
FROM NEW YORK

Today's hearing with USDA's Under Secretary for Rural Development, Xochitl Torres Small, is an important opportunity for Members of this Subcommittee to evaluate the effectiveness of Rural Development programs and the implementation of the 2018 Farm Bill.

First of all, I'd like to welcome Under Secretary Torres Small back to the Agriculture Committee. I think I speak for all of my colleagues when I say your presence on the Committee is missed, but we are grateful for your continued public service in your new role.

My district is the eighth most rural district in the country and my constituents know first-hand just how much resilience and ingenuity there is in rural communities. One of my goals for today's hearing is to bring some of those strengths to light and dig deeper on how rural communities like the ones I and many others on this Committee represent.

One aspect of today's discussion, and an integral part of the work of the Rural Development team at USDA, is that Americans should be able to choose where they want to live without having to make concessions on access to clean water, affordable health care, or fast and affordable broadband internet.

Additionally, it is important that our rural communities have the tools to thrive in a 21st century economy. We must work together to help strengthen local supply chains and ensure efficient distribution of commodities.

Ultimately, rural America knows best how to invest in their communities. In this Subcommittee over the past year, we have heard from rural stakeholders and residents about the problems they face and the resources they need most.

Under Secretary Torres Small, thank you for accepting our invitation to speak before us today as we conduct important oversight work in preparation for the 2023 Farm Bill. I value the experience and insight you bring, and I look forward to hearing your testimony.

I would now like to welcome the distinguished Ranking Member from Minnesota, Ms. Fischbach, for any opening remarks she would like to give.

Ms. CRAIG. I now would now like to welcome the distinguished Ranking Member, the gentlewoman from Minnesota, Mrs. Fischbach, for any opening remarks that she would like to give.

**OPENING STATEMENT OF HON. MICHELLE FISCHBACH, A
REPRESENTATIVE IN CONGRESS FROM MINNESOTA**

Mrs. FISCHBACH. Thank you, Madam Chair. I appreciate the opportunity, and thank you, Under Secretary, for being here today. We appreciate it, and I would like just to begin by remembering Jim Hagedorn. Jim was passionate about his work on the Agriculture Committee and serving the people of southern Minnesota. Our districts are very similar, and so, I was fortunate to work with him on issues critical to our constituents, like promoting ethanol, expanding broadband access, improving livestock supply chains.

I also want to thank the Majority for starting these hearings for the next farm bill. I am very excited to start this process. Each of us want to make this bill as strong as we can to serve our constituents, and as Ranking Member Thompson has said, collaboration at the committee level is necessary to make that happen.

Holding hearings like this one will help us all better understand what worked and what didn't work from the last farm bill, so the reauthorization accurately addresses the needs of our rural communities.

Through the 2018 Farm Bill, this Committee made important improvements to USDA Rural Development programs to meet the health, communications, infrastructure, and economic development needs of rural Minnesota. We provided new and expanded authorities to help address the opioid crisis and the loss of rural health facilities, expand access to clean water and high-speed internet service, rebuild essential community facilities, strengthen rural employers and employees, and promote regional economic development. These pieces are critical components for building what I call strong rural communities.

I am anxious to hear about the Department's work implementing these programs and what additional resources or authorities are needed to enhance the Rural Development toolkit. I am particularly interested in hearing how deployment of rural broadband is going, and the role the USDA plays.

Last summer, we worked together to craft a bipartisan broadband bill, blending ideas from Ranking Member Thompson's Broadband for Rural America Act (H.R. 3369) with proposals from Chairman Scott and Chairman Delgado to develop the Broadband Internet Connections for Rural America Act (H.R. 4374). This legislation passed our Committee unanimously in a clear display of just how important robust broadband connectivity is to our Committee and the Americans we represent. This Committee believes that USDA should have the outsized role in the development of broadband infrastructure in rural Minnesota—excuse me. That was a Freudian slip, I think—in rural America. I hope to hear more from the Under Secretary about how we can strengthen USDA's role in this important mission area.

And again, thank you so much for being here. I really appreciate it, and I am looking forward to the hearing.

Thank you.

Ms. CRAIG. Thank you so much.

I would now like to recognize Ranking Member Thompson for any opening comments he would like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Madam Chair, thank you very much. Thank you to you and the Ranking Member for this hearing.

Let me first echo Mrs. Fischbach's statements, one regarding Jim Hagedorn, and some of us will be attending the funeral, a celebration of his life later today. His presence certainly is going to be missed in these halls and on this Committee.

I would also echo the Ranking Member's statements and thank the chair for calling this hearing on the rural development title of the farm bill. I am honored to welcome Under Secretary Torres Small back to the Committee, I am thrilled to see her. What a blessing to see an Agriculture Committee alumni in the Rural Development Office, someone who truly understands rural America and the challenges our constituents face. It is great to see you back in the Committee room, Under Secretary.

I recently read a very staggering statistic that I would like to share with you all. According to the Federal Communication Commission's 2021 broadband report, more than 500,000 Pennsylvanians are without access to broadband connectivity. In fact, Pennsylvanians living in rural areas are 11 percent less likely than their urban and suburban counterparts to have internet service at home.

Now, this very statement is proof for the ongoing digital divide. In the 2018 Farm Bill, we as a Committee enacted provisions tackling rural and regional broadband development and deployment issues across the nation, while prioritizing resources to the most remote and least connected residents who are also often the most expensive to connect. Now we must continue to look for ways to bring rural America into the 21st century, and I know this is an issue that you are passionate about, Under Secretary.

Agriculture Committee Republicans are ready and eager to work with you on improvements to the Rural Development mission area, but we cannot do that without willing partnership and proactive engagement from you and the rest of the Department of Agriculture. Our partnership falters when the Department acts unilaterally and ignores the concerns of Members of this Committee, or fails just to engage the Committee in the development of the work that they are doing, and only seeks our counsel or input when new authority or funding is needed. Now, we share the responsibility for governing and addressing the needs of rural America, and we can only meet that obligation if we work together.

Historically, I am very proud of the fact that the House Agriculture Committee is one of the most—I would say the most—bipartisan committees in Congress. Our dais is reigned with an impressive dedicated group of Members who are committed to rural America, just like everyone at USDA is. I hold out hope that we can develop a fruitful, consistent partnership with USDA that best serves our rural communities. You might be surprised about what we can accomplish when we work together.

I thank you for doing this, and I look forward to today's oversight conversation.

Thank you, Madam Chair, and I yield back.

Ms. CRAIG. Thank you so much, Ranking Member.

The chair would request that other Members submit their opening statements for the record so our witness may begin her testimony, and to ensure that there is ample time for questions.

I would like to again welcome our witness today, USDA's Under Secretary for Rural Development, Xochitl Torres Small. We will now proceed to hearing your testimony. You will have 5 minutes. The timer should be visible to you and will count down to 0, at which point, your time has expired.

Under Secretary Torres Small, please begin when you are ready.

STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Ms. TORRES SMALL. Thank you, Chair Craig, thank you, Ranking Member Fischbach, thank you Ranking Member Thompson, thank you all Members of the Subcommittee for the chance to come before you today and discuss the state of the United States Department of Agriculture's Rural Development mission area. I also deeply appreciate your comments about Congressman Hagedorn, a former colleague of mine.

Last week, I was in the Black Belt, and I saw firsthand the wastewater crisis that Americans there have been experiencing for decades. When you don't have good wastewater, you may also be drinking dirty water, because of contaminated wells. Rural Development has been working on this for some time, and specifically trying to get folks to sign up for drinking water systems so that we can continue the operations and maintenance necessary to do that work.

So, that means getting people to sign up for these systems, getting them to trust a government that has, all too often, let them down. And so, one Rural Development employee decided to go door-to-door in rural Alabama talking with constituents, trying to get them to sign up for this program. And one woman almost threw him out. She said, "I have been drinking this water from this well my entire life. The government hasn't helped me yet. Why should I think that they will help me now?" He he sat down with her and convinced her to let him test her water, and when the test results came back, the person testing asked if the sample had come from a septic tank because there was that much bacteria in the water. She now has clean water. She signed up for the service and that is a success story. But it also shows how much time it can take with just one person to rebuild that trust.

And so, I want to thank you for the time that you put in to listening to and representing your constituents, to the thoughtful investments that you make in Rural Development so that we can continue to do this work together. I recognize that call to service, and I am deeply grateful to get to work with you.

I am also proud that President Biden and Secretary Vilsack have laid out a clear vision for agriculture and rural America. Building Back Better from COVID-19, expanding options for more and bet-

ter markets for farmers and ranchers, helping us all survive extreme weather, and build resiliency through climate-smart tools, and reaching people in places that have been historically underserved, advancing racial justice, equity, and opportunity. Because rural America has incredible potential, but it cannot be fully realized without reliable infrastructure that looks like broadband, but it also looks like hospitals, schools, community centers, water and wastewater services, housing, sustainable energy, all of which are critical for quality of life, as well as for growth and resiliency.

Your work as Representatives means you are clear-eyed on the challenges that we will face in turning these investments into infrastructure on the ground. I know I am in a rural community when I am in a room full of people who care deeply about their home, but not one of them is a grant writer. Which means that we are going to have to take a hard look at how we deliver our programs equitably. We are going to have to recognize that we haven't always done a good job of giving people a fair chance at success, and it means we are going to be working hard to reduce barriers into the future.

We are the only agency in the Federal Government with a specifically rural mission, and one of the keys to our success is the staff's commitment to that mission. Our team lives and breathes it. That is why when offices are understaffed or decades-old technology systems take extra time that could allow them to instead otherwise be used to reach people in rural places, it can take a toll on them. It can wear down staff morale, reduce quality of customer service, and could erode hard-won relationships with rural partners.

We are going to need to keep those relationships strong to take on the challenges of the future, like supporting innovations in our food system and partnering with farmers and ranchers, investing in energy efficiency, renewable energy systems, and higher blend biofuels infrastructure, and being there to help people across rural America turn their vision for their home and their kids into a reality in the places that they love.

Amidst the tremendous challenges of our time, I see hope and opportunity in rural America. I see businesses eager to build new markets, farmers forging climate-smart solutions, and people who have been left behind open to building new relationships. If we take our cue from them, I am confident we will do our job right.

Thank you, and I look forward to answering your questions today.

[The prepared statement of Ms. Torres Small follows:]

PREPARED STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. Chairman, Ranking Member, and Members of the Committee, thank you for the opportunity to come before you today to discuss the state of the United States Department of Agriculture's Rural Development (RD) mission area. As each of you know well, rural America is exceptional. It contains remarkable economic potential, constant ingenuity, and impressive diversity. The Biden-Harris Administration and the U.S. Department of Agriculture are making once-in-a-generation investments in rural America and specifically rural infrastructure that have the potential to transform communities and lives. However, rural and Tribal areas also face complex challenges that require a different kind of investment—an investment in deep and trusted partnerships. This is where the Federal Government has so much opportunity

before it. From experience, we have seen the tools that can best support rural communities: from flexible programs, technical assistance that make our programs easier to access, and customer-centered technology and staffing. Today I am excited to share both where I am proud of Rural Development's work to be a partner on the ground, and some of the opportunities for improvement where USDA is eager to work with Congress to address. Together, I believe we can—and we must—modernize Rural Development so it can effectively deliver on its mission of building inclusive rural prosperity.

Rural America puts food on our tables, powers the nation, and includes the rich values, traditions, and diversity that make our country what it is today. In 2021 the United States set a new record in agricultural exports and production levels with an 18 percent increase over the previous year.¹ This growth bolsters the economy as a whole and also sustains many rural communities with jobs both on and off the farm. Today, 30% of rural counties have diversified economies and are not reliant on any one industry for a large portion of its employment. This incredible diversity across local rural economies showcases the uniqueness of every rural community. And while many rural communities are thriving, many others are still struggling to keep people in the places they call home. Between 2010 and 2020, urban areas grew by 8.8 percent, while rural populations declined by 0.6 percent. That decline grew by nearly tenfold in areas of persistent poverty, where populations dropped by almost six percent.² Across the country we know that water systems are degrading, housing units are crumbling, and unreliable or nonexistent broadband service severely undercuts the ability to participate in a global economy. These challenges are only exacerbated in areas where there are deep economic, geographic, and racial disparities.

Often rural assets—from food to energy to natural resources—are taken from their place of origin and moved elsewhere to create jobs or opportunities away from the rural communities where they were originally produced. Urban areas may rely on rural ones for raw input and commodities, but rural communities are not seeing enough of these benefits in a meaningful way. Something must change or we risk losing rural life as we know it. The costs of failing rural America are high for all of us. Just a few of the top sectors in rural America—agriculture, energy production, and natural resource extraction—account for more than \$440 billion in exports annually.³ The United States will be less competitive on a global scale if we fail to leverage the economic power of rural America.

Despite the challenges, the solutions are there in the experiences, stories, ideas, and dreams of rural people if you listen carefully. Farmers, rural business, local government officials, schools, hospitals, and community leaders—often time volunteers—find creative solutions to old problems through partnerships, regional expertise, and savvy every day. Amidst the tremendous challenges of our time, I see hope and opportunity in rural America. I see businesses eager to access new markets, farmers seeking climate-smart solutions to extreme weather, and underserved communities with a firm understanding of their assets who are seeking trusted partners to tackle systemic issues. I see the opportunity for Rural Development to work with each rural community to support their vision to make their home a place with good jobs, safe homes, and thriving opportunity for generations to come. If we take our cues from the communities and people who are our customers, I am confident we will do our jobs right.

Creating More and Better Markets

USDA is adapting America's food system with a greater focus on more resilient local and regional food production, building new markets and streams of income for producers and businesses, and supporting the infrastructure that underpins rural communities. The infrastructure investments Congress and the Biden-Harris Administration are providing to rural communities via the American Rescue Plan and the Bipartisan Infrastructure Law as well as annual appropriations measures can be transformational for rural America if complemented by new market opportunities and capacity building efforts to help communities best leverage these programs to forge their own future.

In December, Rural Development launched a program to make more than \$1 billion in loan guarantees available to help businesses in the food supply chain process their products and get them to market. The new Food Supply Chain Guaranteed

¹ <https://www.usda.gov/media/press-releases/2022/02/08/american-agricultural-exports-shattered-records-2021>.

² <https://www.ers.usda.gov/webdocs/publications/102576/eib-230.pdf?v=2961.8>.

³ https://www.usitc.gov/research_and_analysis/tradeshifts/2020/trade_by_industry_sectors.htm.

Loan Program will help meat and poultry processors and other food businesses that are active in the middle of the food supply chain: manufacturing, storage, transportation, and distribution. Rural Development announced new investments to significantly increase the sales and use of higher blends of bioethanol and biodiesel through expansion of the infrastructure for renewable fuels derived from U.S. agricultural products and will complement existing funding with an additional \$100 million in grants in the coming months. Additionally, Rural Development has made \$700 million available through the Biofuel Producer Program to provide support to producers who experienced market losses due to the COVID-19 pandemic. These investments will give consumers more options for clean energy at the pump, while also creating new market opportunities.

Rural Development is also working to expand access to new markets by expanding access to broadband across rural America. Broadband is make or break for rural America, impacting small towns, communities and Tribal nations alike—linking rural hospitals to critical telehealth care, connecting businesses to international markets, and giving our students the tools, they need to learn remotely.

Rural Development, in close coordination with other Federal partners, is working to close the digital divide in rural America, to meet the goal of Biden-Harris Administration to connect all Americans to reliable, affordable high-speed internet, and to ensure that the opportunities provided by high-speed internet services are available to all. In the first two rounds of funding, Rural Development's ReConnect program has provided more than \$1.5 billion to 181 projects to increase broadband service. These projects will serve nearly 300,000 households nationwide. Part of the success of ReConnect can be attributed to its deep investment in technical assistance and administrative support for technology and staffing, which broadens the reach of the program to include the least connected communities.

In addition, tomorrow Rural Development will close its largest ever application window for the third round of ReConnect program funding, which will provide more than \$1 billion in broadband funding to rural communities. In the next few months, we will open the fourth ReConnect program application window as part of distributing an historic \$2 billion in broadband funding provided by the bipartisan Infrastructure Investment and Jobs Act for broadband programs operated by Rural Development. These investments are momentous and make significant strides toward closing the digital divide and ensuring that all rural Americans can participate in the global economy.

As we support investment in more and better markets, we are also working to help communities recover from COVID-19. We have expanded access to COVID-19 vaccines, testing, and supplies, while strengthening rural health care providers, including through the \$500 million that the American Rescue Plan provided for USDA's Community Facilities to create the Emergency Rural Health Care Grant Program. Thriving markets require a safe place to live, and Rural Development looks forward to supporting this objective.

Climate Resiliency

At Rural Development, we know rural communities are on the frontlines of severe weather and drought that threatens their safety, health, and livelihoods. Utilities, small businesses, and cooperatives all play critical roles in rural communities and will be best positioned to help increase rural energy efficiency and transitions to clean power. By investing in climate-smart and resilient infrastructure, rural leaders are taking charge with the appropriate Federal support and flexibility to foster their success.

Since January 2021, Rural Development invested \$687 million through the Rural Energy for America Program (REAP) to help rural businesses purchase and install energy efficiency upgrades and renewable energy systems and has the flexibility to fund a variety of projects from constructing greenhouses to large-scale solar panel projects, all which play a significant role in tackling the climate crisis. In that same period, Rural Development projects greenhouse gas emission savings of 1.4 million metric tons of Carbon Dioxide annually for the life of these projects. Rural Development invested more than \$47 million in grants across 31 states to add almost a billion gallons of higher blends fuels to the market through the Higher Blends Infrastructure Investment Program. The Rural Utilities Service invested \$241 million in renewable and energy storage loans, including 13 solar projects totaling \$199.8 million. Rural Development is also celebrating the 10th Anniversary of the BioPreferred certification and labeling program by adding more than 270 new companies to bring the total to 3,200 companies from 47 different countries. The biobased products energy supports 4.6 million American jobs, contributed \$470 billion value added to the U.S. economy, and generates 2.79 jobs in other sectors of the economy for every biobased job.

These programs demonstrate remarkable success in the fight against climate change while also helping cut energy costs and increase efficiency for producers and rural businesses. Rural residents know what works for them, and they know what tools they need to adapt to changing circumstances and build a more resilient future.

Advancing Racial Equity

At Rural Development, we acknowledge we have not done enough to provide all producers, small businesses, families, and communities an equal chance of success and prosperity. Rural counties make up 86 percent of persistent poverty counties and roughly half of Black and Native American rural residents live in economically distressed areas.⁴ These divides are systemic, and RD is committed to working intentionally to reduce disparities between rural and urban communities and within rural communities by reducing barriers to accessing RD programs and services for underserved rural communities.

USDA recently announced and held the first meeting of an Equity Commission, which is charged with evaluating USDA programs and services and recommending how we can reduce hurdles to accessing them. Rural Development is eager to support the work of the Equity Commission and looking forward to the Department's plans to launch an additional Subcommittee focused on rural community and economic development. This Subcommittee will directly inform Rural Development's work and help us aim to achieve more equitable outcomes.

In the meantime, Rural Development is looking for creative ways to provide capital to communities that historically have not had these resources and knows that investments in our boots-on-the-ground staff to help communities navigate not only Rural Development resources but those across the Federal family that can help meet their needs is crucial to reducing barriers. Additionally, other ways to make programs easier to access like the current round of ReConnect funding which is currently allows Tribes and Socially Vulnerable Communities to apply for grant funds that do not require matching funds. Access to information, the ability to participate in a global economy, and digital learning opportunities are vital to helping dismantle barriers for these rural communities.

Opportunities for Improvement

Rural Development provides community infrastructure, builds rural housing, and supports small businesses and entrepreneurship across rural America. One of the strengths of Rural Development is that unlike many other Federal agencies, we have a presence in the communities we serve through our state and area offices. With over 4,600 "boots-on-the-ground," Rural Development identifies and provides rural assistance that reflects the needs of local communities. Congress recognizes this special relationship and has entrusted Rural Development to invest in rural communities by increasing program levels each year. We are grateful to Congress for its trust in our highly effective stewardship of the funding and authorities they have entrusted to us.

Rural Development has a wide range of tools and authorities, but there are ways that these programs and authorities are dated, cumbersome and can make it so that working with Rural Development is harder for communities than it should be. From providing technical assistance to helping communities employ proven development strategies and finance methods, Rural Development could be an even better partner to rural and Tribal communities. To that end, I am eager to work with Congress to ensure that Rural Development is a modern, customer-oriented organization with the programs, tools, flexibility and skills that ensures Rural Development can meet communities where they are and offer the full scope of expertise and support rural communities' need today.

Rural Development's core programs and authorities are incredible and impactful. But our programs are rooted in the title V of the Rural Housing Act of 1949, the Rural Electrification Act of 1936, and the Consolidated Farm and Rural Development Act. While Rural Development programs are often adjusted or updated, rarely are they considered holistically and with a comprehensive view of what it will take to keep wealth created in rural places in rural and Tribal communities and what these communities need to thrive and prosper. The 2023 Farm Bill presents an opportunity to take that wider view and ensure Rural Development is the transformational partner rural and Tribal communities need today.

⁴ <https://www.aspeninstitute.org/wp-content/uploads/2021/12/TR-FP-3-Rural-Capital-singles-FINAL.pdf>.

Conclusion

In my time leading this agency, I have had the opportunity to travel across the country and meet with many of the people we serve. I have visited states in every region of the country—in many of your districts meeting with the people you represent. I have been able to hear their concerns and their optimism about the future. I too am optimistic about the future and look ahead to continuing to fight for rural communities, and the farmers, ranchers, businesses, and families who sustain them.

Rural Development is poised to meet and expand our commitment rural America, and with some additional tools in our toolbox that empower our staff to work hand-in-hand with rural communities to better access more flexible programs Rural Development could truly deliver best-in-class service and seize this moment to re-imagine and rebuild an economy that invests in the people who make this country run. I look forward to working with this Committee to support this mission.

Ms. CRAIG. Thank you so much.

At this time, Members will be recognized for questions in order of seniority, alternating between the Majority and Minority Members. You will be recognized for 5 minutes in order to allow us to get to as many questions as possible. Please keep your microphones muted until you are recognized in order to minimize background noise.

I would like to start by recognizing myself for 5 minutes.

First, on strengthening local and regional supply chains, I would love to address local and regional meat processing as a key part of resilient rural economies. Madam Under Secretary, you mentioned the \$1 billion investment that USDA is making, via a Food Supply Chain Guaranteed Loan Program, made possible by the American Rescue Plan (Pub. L. 117–2) funds. That is in addition to \$500 million for meat and poultry processing announced in July of 2021.

How will USDA ensure that these programs help existing processing facilities scale up their operations via staffing and infrastructure investments, and how does USDA see these programs as complementary and not overlapping?

Ms. TORRES SMALL. Thank you so much, Chair Craig.

This is a crucial issue. Of course, for farmers and ranchers who, in the midst of COVID–19, were trying to find some place to process their product and had no options. They had people who wanted their beef, but were going to have wait a year before there was a chance, there was room in the slaughterhouse. So, we are trying to address this on the ground by expanding options and building out the middle to make that investment.

So, right now we have the Food Supply Chain Guaranteed Loan Program that has helped identify potential projects as well as lenders who might be eager to work with us on this issue. We have also announced MPPEP (Meat and Poultry Processing Expansion Program), which is really building that out, identifying middle market projects that are very close to completion, how can we support that last step of investment to get them online and operating, expanding the number of hooks available. And we are also eager to take on new projects, identifying where there are others that are more in the formation piece and how we can work with local lenders to potentially support additional projects in the future.

So, I look forward to working with you on that, and certainly I want to recognize that what we are looking at now is how we expand the existing services so that people have options, so that farmers have options as do people in the supermarket.

Ms. CRAIG. Perfect.

Well, listen, let's turn to rural healthcare. We could talk about this for hours, but the Emergency Rural Healthcare Grants in the American Rescue Plan provided the Rural Housing Service Community Facilities Program up to \$500 million to eligible applicants to expand access to COVID-19 testing and vaccines, telehealth services, food assistance, and the long-term sustainability of rural healthcare.

Has the program been successful? Did any of the changes made to the existing CF Program prove successful enough to potentially warrant incorporation into permanently authorized CF programs?

Ms. TORRES SMALL. Chair Craig, it is crucial that we respond to the challenges both experienced in the midst of COVID-19 when it comes to healthcare, but also that rural America is facing as a whole when it comes to healthcare. When we see increasing numbers of rural hospitals closing, when we see challenges in workforce, and also, just people being able to get care close to home. We were able to, with Community Facilities, set up two programs to those ARPA funds, \$300 million on tract 1 and then \$150 million in tract 2. Tract 1 was immediately responding to COVID. Tract 2 is looking into the future and building resiliency. And we were impressed with applications on both fronts. In tract 2, there certainly was more demand than we expected. So, we are eager to continue to get out those awards, and certainly willing to provide technical assistance if it is a program you continue to be interested in.

Ms. CRAIG. I want to end my questioning here on rural broadband. Can you share background on USDA's approach to the next round of ReConnect funding? What will the Department prioritize? How will it ensure that all entities, including local providers, have access to those funds?

Ms. TORRES SMALL. I was in Lewis, Iowa, the other day and the Mayor there remembers the exact spot on the hill that he used to have to go to make a cell phone call. A few months later, Rural Development brought in some fiber. The cell phone company put up a tower right next to it, and now he can call from his phone anywhere in Lewis. He also can operate his business from home. Those are the kinds of impacts we want to make. Our ReConnect round 3 is targeted at reaching those places that no one has dared to go before. It is going to take ingenuity. It is going to take working with new communities, whether it is laying ground on the sea floor to reach an island off the coast, or whether it is reaching Alaskan Native villages that you can't reach even by road.

So, we have a lot of work to do, but we are seeing a lot of interest. And we want to thank this Committee for their foresight in investing in broadband for so long, for decades, that is allowing us to take advantage of this moment.

Ms. CRAIG. Thank you so much, Under Secretary Torres Small. It is an honor to have you here.

That concludes my 5 minutes, so I know recognize the gentlewoman from Minnesota, Ranking Member Fischbach, for 5 minutes.

Mrs. FISCHBACH. Thank you very much, the Chair from Minnesota. It is a Minnesota morning.

Thank you again, Under Secretary for being here. I just want to maybe expand a little bit on the broadband issue. I mentioned the

bipartisan bill that we passed in my opening remarks, and that provided a drastic increase for resources available to USDA Rural Development for broadband deployment in contrast to the just three percent of broadband funds allocated under the American Rescue Plan Act of 2021, Infrastructure Investment and Jobs Act (Pub. L. 117–58), and the proposed Build Back Better was for broadband programs under the USDA’s purview.

And so, I am just kind of wondering, the 2018 Farm Bill authorized a very similar program named Middle Mile Infrastructure Program to finance these types of projects, but this program has yet to be appropriated for funding. Do you believe that Rural Development would be better prepared to finance these projects and handle these projects for rural areas?

Ms. TORRES SMALL. Well, I just thank you so much for your focus on broadband, and in your remarks as well as Ranking Member Thompson’s remarks, the focus on partnerships that are crucial to get broadband done, whether it is on a local community scale, whether it is in Congress, whether it is between agencies. And because of the Agriculture Committee’s investment in broadband for a long time, we have the skills that have allowed us to stand up the programs that have been established for us very quickly.

Now, in terms of what the program looks like, we will certainly follow Congress’s lead and do what you instruct us to do, and we are really eager to provide technical assistance on any questions you might have as you do that. But thank you for having such a bipartisan approach to it.

Mrs. FISCHBACH. Thank you very much, and maybe switching a little bit, switching gears.

You mentioned funding availability for biofuels infrastructure and assistance related to pandemic losses, and I am grateful for that. Minnesota’s 7th Congressional District is one of the top producers of biofuels in the country, and it is in many cases the main employer or source of economic activity in the town in which they operate.

What are your thoughts regarding biofuels, not just as a source of low-carbon fuels, but as an economic generator in these rural communities, especially as we consider USDA’s authorities and programs in the farm bill?

Ms. TORRES SMALL. I was in Minnesota this past winter, and I was just struck by the pride of the farmers and the community for being part of this solution when it comes to taking on climate change. Also, the pride of the local market that it has created. I talked to someone who was both a local elected official and a banker who saw the impact it was having on their town. He is also a father who was hopeful that his daughter will be able to stay in their hometown because of the new job opportunities that are available.

I think that really speaks to exactly what you are talking about. I am proud that USDA has invested \$700 million in terms of providing support for those farmers and the experiences they had in the midst of COVID–19, and then another \$100 million to build up that infrastructure that is crucial to delivering that climate-smart fuel close to home.

Mrs. FISCHBACH. Thank you very much, Under Secretary, and I yield back.

Ms. CRAIG. The Ranking Member yields back.

I now recognize the gentlewoman from Iowa, Mrs. Axne, for 5 minutes.

Mrs. AXNE. Thank you, Madam Chair, and thank you, Under Secretary Torres Small, for joining us today. I very much appreciate seeing you, as usual.

Listen, I just want to touch base on a few things, but first, thank you so much for your visit last November to my district where we announced a significant Rural Energy for America Program to help Elite Octane's ethanol plant in Atlantic, Iowa, be even more energy efficient. So, thank you so much for your approach to energy efficiency in looking at our states for that.

After touring the plant, we had a great roundtable discussion with farmers and stakeholders on the benefits of biofuels, and how it provides a cleaner alternative to fossil fuels and is a significant driver of economic opportunity in Iowa. At the end of the day, supporting rural communities is one of my top priorities in Congress, and so, I have been laser focused on making sure that these issues, including rural broadband, which, of course, USDA plays a key role in, is where I would like to direct my first question.

So, I appreciate the efforts of the USDA to ensure forward looking speed standards in the latest round of ReConnect funding. Given the record \$65 billion investment in broadband in the bipartisan infrastructure bill, as well as funds from the American Rescue Plan invested in broadband deployment across the country, which includes \$200 million in Iowa, and then, of course, I am very familiar with a lot of funding we have in Iowa at the state level as well. I am wondering, how is the USDA working to coordinate broadband efforts across multiple levels of government to make sure that these best practices are shared and we use the money effectively and efficiently. As something we have been talking about in Iowa, quite honestly, for a long, long time, I am glad we are going to get this done, but I want to make sure that we get the biggest bang for our buck, and I am hoping you can shed a light on how that coordination will work.

Ms. TORRES SMALL. That is such an important question, Congresswoman Axne, and what we are seeing in our conversations so far is just the importance of making sure that there are partnerships when it comes to broadband. It is about coordination, but even more importantly, it is about truly partnering with our Federal agencies on the ground.

And Rural Development has a lot to bring to that partnership. We have the long tenured experience in broadband because of the foresight of this Committee. We have the new option to include grants in those applications, as well as to waive some of the matching requirements that we are able to do in this most recent round. We also have expertise working in some communities that we can really bring to the table, whether it is working with NTIA on some of the assistance when it comes to Indian Country, whether it is getting that on the ground detail, the granularity that we require for our projects, which is house-by-house, to then supply information as we work towards better maps.

So, Rural Development has a lot to bring to the table when it comes to coordination, and we are doing that robustly. Whether it is weekly meetings at the White House, whether it is staff level communication about the timing of announcements, or making sure that we are keeping an eye on places where announcements have been made, for example, in RDOF and FCC, making sure that we will be then communicating with the states as they receive their money from NTIA.

So, there is a lot of work to be done. There are a lot of people who have different expertise that they are bringing to the table, and Rural Development is very proud to be part of that.

Mrs. AXNE. Thank you so much for that, and listen, if there is anything that you want to communicate to us Members as you move this forward, I very much appreciate it because to me, getting this done is so important. Iowa falls bottom of the barrel when it comes to connectivity, so thank you for that.

Now, I want to move on to housing. Of course, USDA supports housing in rural areas. While in the future, I hope to see more investment in these programs to alleviate housing shortages that are, quite honestly, holding back rural communities over the long-term, I am just curious right now about the process and support for residents who are already there in existing housing supported by USDA. In Iowa, unfortunately, I have heard of reports of mismanagement, lack of maintenance, and some other illegal actions by Truverse, which is a property management company that receives USDA support.

So, can you describe the rights renters in USDA properties have as far as in terms of upkeep of the property, as well as oversight that the USDA does, and if the USDA needs additional resources or abilities to fulfill and support the protection that those renters need?

Ms. TORRES SMALL. Congresswoman Axne, thank you for your focus on this. It is a crucial issue. Rural Development operates a large number of housing. So, you often think of HUD when you think of housing. We have about $\frac{1}{3}$ of the same stock in rural communities specifically, which is crucial.

To get to your point, we are committed to making sure that tenants living in places that have received USDA loans do have the support that they need. We have been responsive in terms of making sure that there are new ways to issue a complaint, for example, and we have been working with Iowa Finance Authority to address some of those concerns. I really appreciate your role in raising these issues, and look forward to continuing to work with you and your team to make sure that we are addressing these concerns, because it is crucially important as we think about housing in rural America. It is one of the key building blocks to make sure that people have a good life, and we work hard to make sure that people living in those facilities only pay 30 percent of their income for housing through some of the subsidized assistance that is available through Congress. So, we will work to continue to do that.

Mrs. AXNE. Thank you. I yield back.

The CHAIRMAN [presiding.] Thank you. I also want to thank Congresswoman Craig for filling in, I appreciate that. And I now will recognize Ranking Member Thompson for 5 minutes.

Mr. THOMPSON. Thank you, Mr. Chairman. Madam Under Secretary, I want to thank you for your recent response to our letter regarding the substantial changes to the ReConnect Program. And one of the questions I had was how you decided to advantage non-profit applicants over for-profit applicants, since that so clearly broke with the long-standing operation and precedence of the program. And unfortunately, I was puzzled and somewhat unsatisfied with your response, as it seemed to point to a priority within an unrelated and much older provision in the Rural Electrification Act to justify the Department's current actions in implementing ReConnect. I think if you had talked with us before making this drastic change, we would have been happy to clarify that Congress has always wanted to encourage as many options for rural residents as possible, and doesn't believe that any type of broadband provider was more deserving of assistance than another.

I think, actually, that is why USDA—we are always very proud—has been more effective at bridging the digital divide, than—quite frankly, some of the other agencies within the Federal Government. So, I hope we are not falling into some of the bad habits that have made some of these other agencies less than effective at bridging the digital divide.

In my opening statement, I noted that we want to work with you to address the needs of rural communities, but are frustrated at the many times that we have been excluded—this was one issue in Rural Development, but there have been others in other parts of USDA recently, from major policy changes until the—really excluded until the very last moment. ReConnect round 3 is just one of those examples. I would just ask that, just request that you please talk with us. We want to work with you before you embark on major policy changes. These changes have consequences, and in the future, and particularly as you undertake ReConnect round 4, can you assure me that you will talk to us about any major programmatic and policy changes, before they get set in stone?

Ms. TORRES SMALL. Ranking Member Thompson, I deeply appreciate your focus on broadband and how we can deliver it as appropriately as possible. Thank you for your very detailed letter addressing some of your concerns, and we look forward to continuing to work with you.

It is certainly, as we take on this next step, which are going to be some of the hardest projects, we are looking to bring in as many potential partners as possible, and to that point of coordination, one of the pieces that we see as one of our strengths is relationships with rural electric co-ops that potentially we can help bring to the table.

And so, in setting up this small percentage of voluntary points as a way to try to get more people to be at the table solving problems, we are hopeful that this will just create more options for communities that may not necessarily otherwise have folks who are looking to serve their area.

Mr. THOMPSON. On the broadband area, obviously there was discussions previously about the great bipartisan work that this Committee did. Last summer with Chairman Scott, we worked on a bipartisan bill, passed unanimously. It really bridged, if not all, most of the digital divide, would have created a circuit rider program

like we see with rural water. We have done that for broadband. It would have provided a competitive grant program for mapping. And unfortunately, we cannot get the Democratic leadership—and this is a frustration I share with Chairman Scott. We have worked on this hand-in-hand, actually, to try to get Democratic leadership in the House to bring it to the table.

So, I would just ask—and I know Chairman Scott would appreciate this as well—any help that you and USDA could do to influence the Democratic leadership in the House to bring this very strong bipartisan bill to the table would be greatly appreciated. I know rural America would benefit from it. What was passed in the infrastructure bill, \$2 billion to USDA. With inflationary costs, it is not going to go very far. We need to bridge the digital divide in rural America to give rural Americans access to what they need to have today. If we would have taken the same disjointed approach back in the 1930s to electricity, I think some of our communities—probably the community I live in—would still be in the dark. But, I would appreciate that.

I would also, just real quickly on the meat processing assistance, I support the notion of diversifying and enhancing processing capacity. I think that is an approach I certainly appreciate.

Any brief comments on the level of interest that you have seen in the Food Supply Chain Guaranteed Loan Program, and the projected timing of awards, or the types of projects that may be coming forward?

Ms. TORRES SMALL. It has been a great opportunity to extend conversations with new lenders who might be interested in supporting expanding the food supply chain, and specifically in meat marketing. And so, we are working on that, recognizing that with a guaranteed program, our partners are the lenders, who are then working to build those projects. So, as we work to educate about that program, we are also working to make sure that they are aware of the additional opportunities that will be out there in the future, and it has provided a chance for us to work more in an area that allows farmers and ranchers to build local markets, and diversify their work.

Mr. THOMPSON. Very good. Thank you. Thank you, Mr. Chairman.

**OPENING STATEMENT OF HON. ANTONIO DELGADO, A
REPRESENTATIVE IN CONGRESS FROM NEW YORK**

The CHAIRMAN Thank you. I will now recognize myself for 5 minutes.

First, let me just say it is good to see you, Under Secretary. I appreciate you taking the time to be here today before the Committee, and I am looking forward to being able to talk a bit more here about rural economic development and the program initiatives that we think we can build upon moving forward.

Let me say, it is important to understand as someone that represents the eighth most rural Congressional district in the country that figuring out how to have robust regional rural economic development resources is of utmost priority for me. As we recover from COVID-19, rural communities need access to targeted resources. That is why I introduced the Rebuild Rural America Act of 2021

(H.R. 2361), which delivers resources directly to counties, towns, and villages to address issues like food insecurity, high unemployment, or a lack of rural broadband. The key components of the program being that it provides non-competitive, multi-year and flexible funding to support the growth of our local rural economies. It would remove, also, bureaucratic hurdles and ensure the USDA staff are available for technical assistance, capacity building, and oversight.

Could you please talk to me about existing rural economic development programs, specifically the Stronger Economies Together, and the Strategic Economic Community Development Program? What are some characteristics of these two programs that have been effective, and how can we build upon the resources that have been provided by these programs to ensure Rural Development staff and rural communities are working together to develop plans for rural economic growth and can access funding to support these plans?

Ms. TORRES SMALL. I so appreciate—Chairman Delgado—thank you so much for the chance to be here, and I deeply appreciate your comment about how we can make sure that Rural Development staff is on the ground and working together with the communities, because those really are the two sides of the same coin in terms of the partnerships that we have to forge to address this.

And so, as we look at your legislation and recognizing there were similar related proposals in the Build Back Better legislation, that focus was on building that community capacity. One of the great ironies of the approach that we have seen is that so often, money goes to cities through CDBG grants, that goes directly there. But for rural communities, they have to compete for those funds. And so, certainly recognizing your effort to address that and to support community capacity.

The other side of the work is making sure that we have Rural Development folks on the ground, like the person I spoke about in my opening statement, making sure that there are experts in the community. So, not just in the projects and the programs and the loans and the grants and all of the requirements for the application, but also in knowing the people on the ground, and that is the other side of the coin. We need both of those in order to reach places that we haven't been able to reach before.

The CHAIRMAN. And just to make sure I understand, those two pieces that you have highlighted in terms of community capacity and folks on the ground, when you think about the two programs I mentioned, the Stronger Economies Together and the Strategic Economic Community Development Program, are those key components of those two programs, or are there other types of aspects? Could you speak specifically to those two programs?

Ms. TORRES SMALL. Sure. So, something we are continuing to work with your office on, identifying what are the benefits and how do we take them into the future? And as we look at the farm bill, as we provide technical assistance for you, I think it will be about pulling out what works in those programs and how we take that into the future.

The CHAIRMAN. Yes. Just one little follow-up here. Can you commit to working with us to identify opportunities to support com-

prehensive regional development planning efforts, and ensure we are providing rural communities with technical assistance and access to flexible use funding?

Ms. TORRES SMALL. I can.

The CHAIRMAN. Excellent. Well, we will certainly continue to work with you on that as you move forward, and again, thank you very much for your time and testimony today.

And with that, I will now recognize Representative LaMalfa for 5 minutes.

Mr. LAMALFA. Hi. Am I on?

Ms. TORRES SMALL. Hi.

The CHAIRMAN. Yes, you are on.

Mr. LAMALFA. Okay, good. Thank you. It is hard to hear here. Thank you. I appreciate it, Mr. Chairman, and Under Secretary, good to see you—or should I just say, Xochitl, it is great to see you, ma'am. It is awesome. It is great to have you in this position here, so I appreciate you.

Let me launch into a couple things here. The issue that GT, I mean, Ranking Member Thompson touched upon it a minute ago, but I want to take it a little further.

ReConnect round 3, what we are finding is that the groups that are availing themselves to the funding—I am not doing very good right now. Anyway. They are trying to access this program, right, generally has been with municipal or nonprofit, but we are finding is that—I have some very small companies up in my district as well that do happen to be private companies. They don't fit the other categories, so I guess with the points system, the preference points is they are left out because they don't score as many points on the scale. But the policy of USDA is supposed to not really discriminate against them in that sense because they are the only game in town in these very rural areas too that we are talking about. So, can we take a further look at that and see that the points system—that that scale does not harm them just because they might happen to be privately held companies?

Ms. TORRES SMALL. Congressman LaMalfa, I really appreciate your efforts to make sure that we are reaching every community, and communities that have been unserved or underserved, making sure that we have the right partners at the table.

Mr. LAMALFA. Thank you.

Ms. TORRES SMALL. When it comes to the voluntary points system, we were thinking very intentionally about how we bring new partners to the table, but also recognizing that there are a lot of different ways we want people to distinguish their projects. So, whether that is making sure that you are reaching vulnerable communities, socially vulnerable communities, the most rural, least dense places, that is another way to receive priority points. The places with the lowest connection, under 25/3, for example, is another way to get everyone at the table and to distinguish your application.

So, the cooperative or local government piece is 15 points out of a total 150 points that allow you to distinguish your applications. There are lots of ways to build a great application, and we are eager to work with folks on the ground in California to make sure that they are finding those ways to do that.

Mr. LAMALFA. Is it possible, then, to have it looked at as if they are the game in town, we are talking extremely rural areas between mountain ranges and such. The points scale, there isn't a way for these barely connected areas to have any other way to do it. So, I guess, is it possible to put aside that part, because that is it. It is either they are in or they are out. You know what I am saying?

Ms. TORRES SMALL. So, there is \$1.15 billion available in this round. There will be another \$2 billion available, a little bit less than that, thanks to the bipartisan infrastructure law, and so, we expect that we will be working with different partners depending on who is, like you said, on the ground in those areas and we are eager to work with them as we continue to distribute these funds.

Mr. LAMALFA. Sorry, I'm [inaudible].

On one other point here, too, is that the opioid crisis in rural areas has been a tremendous issue, but it has been kind of put aside by COVID. And so, what we are looking at is that in these rural areas, it still needs to be addressed, as always, and we realize that. But what can you tell me about the focus of USDA in rural issues with the opioid, picking that back up after the tremendous issues with COVID waning here, but still the opioid problem we have? What are we looking at there? How can we emphasize more of that work?

Ms. TORRES SMALL. Congressman LaMalfa, thank you so much for asking that question. It is absolutely true that we have to continue to take on the challenges of the opioid crisis, and you are right to put it in the context of COVID-19. In the midst of COVID-19, we saw deaths related to opioid overdoses increase in a way even beyond what we had seen before. And so, as we are coming out of this crisis as CF, the Community Facilities Grant Program and Loan and Guaranteed Loan Program has shifted from standing up these new programs to address COVID-19. We are also eager to work to continue to identify projects and opportunities to deal with the opioid crisis.

Mr. LAMALFA. Thank you, I appreciate it. Good to see you.

I will yield back my time.

The CHAIRMAN. Thank you.

I now recognize Representative Kuster for 5 minutes.

Ms. KUSTER. Thank you so much, Chairman Delgado, and I have to say, I could not ask for a better bipartisan transition, Mr. LaMalfa. As the chair of our bipartisan Addiction and Mental Health Taskforce, I very much look forward to working with you to transition from the post-COVID era to renew our attention to addiction in rural America.

I want to give a warm welcome to our good friend Under Secretary Torres Small. Welcome back to the Agriculture Committee. It was such a treat to have you in New Hampshire last December and to show you the key role that USDA Rural Utilities Service loan programs play in the growth of the solar energy infrastructure in the Granite State.

And as you saw during your visit, USDA Rural Development programs across the board have a tremendous impact in my state with broadband, water, energy, housing, and beyond. We look forward to the reauthorization of the farm bill in 2023. It is a great oppor-

tunity to take stock of how we continue to strengthen our farms and our rural communities.

And with that in mind, I want to begin by asking about the Value-Added Producer Grants. In 2020, I led bipartisan legislation to temporarily waive the matching fund requirement for participation in this program in light of financial challenges related to COVID-19. Ultimately, we were able to secure a significant reduction for the matching requirement. I believe this value-added program will only grow in demand as small family farmers and producers seek to diversify their products and make connections with local consumers. This is a win/win for both ends of the food supply chain.

Madam Under Secretary, could you comment on the impact you have seen this program have as we emerge from the pandemic, and are there steps that we can take to ensure that small farmers can continue to participate in this program?

Ms. TORRES SMALL. Congresswoman Kuster, thank you so much for your work on the Value-Added Producer Grant. It is one of the most popular things that we do, which is helping farmers and ranchers take a product and find ways to infuse more value into that product. Often, it also means opening up more and better markets, which as we have seen in the midst of COVID, is exceptionally crucial for our food supply chain resiliency.

I have seen on the ground how farmers are working to get more greens to local grocery stores because of Value-Added Producer Grants. I have seen that that connection that I think we can talk about more in terms of connecting rural communities to urban communities, and how we are truly feeding America. So, I think there is this great opportunity for Value-Added Producer Grants. I have also heard them talked about in the context of meat processing, whether it is cold storage, whether it is making sure we are using all of the byproducts available, to create value out of that. So, I think it is one of the most popular programs, and I certainly appreciate your interest in it, and I am happy to provide technical assistance as you look at that further.

Ms. KUSTER. Well, it is so important to boost the rural economy and particularly with the rising energy costs, it just seems a complete waste of consumer dollars to be trucking our food halfway across the country, when it could be grown in the community right where people live.

Switching gears, I want to return to the topic of the day, rural broadband. As you know, we are excited that several communities in New Hampshire received a loan for broadband build-out through the ReConnect pilot program last year, but as millions of Americans still don't have reliable broadband access, including 13 percent of New Hampshire farmers, I am concerned to hear that broadband funding has sometimes been used to overbuild existing broadband networks instead of bringing the benefits of broadband to areas with no service. Would you agree that the priority for broadband funding in programs at the USDA should be on areas currently without any broadband, and if so, what steps are you taking to make sure that the ReConnect funds prioritize those communities with no broadband?

Ms. TORRES SMALL. So, one of the steps that we have taken when it comes to making sure that we are reaching places that are unserved right now is included in that priority system, priority points. The largest number of priority points available for serving unserved areas, which is defined as *less than 25/3*. So, we see an incredible opportunity to reach those places, and frankly, Rural Development has been one of the most successful in terms of reaching those places because of our experience working in rural communities.

I am also really glad that you brought up farmers and access on farms as one of the challenges. I was in Virginia earlier—actually, late last year, and a farmer came up to me and he said thank you so much for increasing the required build-out speed to 100 up, 100 down. I want to expand my work in precision ag. I want to be a contributor when it comes to using climate-smart technology, and it is going to take having that connectivity to make that happen. So, that is another way that we are working to both reach the unserved places now in terms of those priority points, and then also to make sure that rural communities aren't stuck in a slow lane, because this isn't just about now. It is about how do we make sure that these are great, thriving rural communities into the future.

Ms. KUSTER. Excellent. Well, my time is up. I am going to submit for the record my final question on the Healthy Food Financing Initiative, which has been really helpful for immigrant and refugee farmers in New Hampshire.

But I yield back, Mr. Chairman, and thank you again for having the Under Secretary. I think she is an outstanding member of the new Administration. Thanks so much.

The CHAIRMAN. Thank you.

Now I would like to recognize Representative Cammack for 5 minutes.

Mrs. CAMMACK. Thank you to the Under Secretary for your presence here today. I appreciate your testimony, as well as my colleagues and your questions. This is an incredibly important issue. I think COVID highlighted precisely the need for high-speed reliable affordable internet across America, and certainly in rural America, be it for telehealth, for commerce, or for education.

I represent a largely rural district in north central, northeast Florida, and we have children who do their homework in a Hardee's parking lot. We have government entities that cannot open their doors because of restrictions from the Federal Government and can only serve via telehealth or a telework model. But because of the lack of internet connectivity, we are not able to take advantage of those resources. So, my constituents are in kind of a Catch-22.

So, I know that I am not alone in this. Constituents across America are in this. But I have a real concern about overbuilding, and the relationship between USDA and FCC. So, if you look at the FCC's current definition of *unserved*, that is an area that is lacking speeds of 25/3 megabits per second. Now, the definition also describes communities throughout my own district where even minimal broadband service is unavailable, leaving entire communities behind.

Secretary Vilsack recently announced that USDA would fund projects capable of serving 100/20 megabits, including areas that were already receiving funds from the FCC's Rural Digital Opportunity Fund, the RDOF auction, to serve areas at speeds of 25/3.

Now, I am concerned that we have multiple providers in the same area that are going to use federally subsidized overbuilding to deploy broadband, which really doesn't make economic sense. It is not good use of taxpayer funds. So, how are we going to prevent overbuilding in these areas while still leaving areas that aren't touched by the RDOF auctions and by the ReConnect Program? How are we going to address this?

Ms. TORRES SMALL. Congresswoman, thank you so much for your advocacy for the rural communities and the people that you serve, especially when it comes to people who do not have good reliable internet right now. It is a priority of USDA Rural Development to make sure that we are reaching those unserved communities. We have the same definition of 25 up, 3 down as *unserved*, making sure that we are reaching your constituents. And that is why the—in the priority points we have identified 50 points out of 150 are specifically for that unserved population of 25 up, 3 down. Additionally, if they are a very sparse population, if they are really rural, that is another set of priority points.

So, we know how crucial it is to be able to prioritize those projects, and we know how crucial it is to make sure that rural communities aren't stuck in the slow lane for the rest of time, right? This is an investment not just for now, but also into the future. So, making sure that we have a backbone that will be able to compete on the speeds that we see is crucial, because we certainly saw in the midst of COVID with your kids who are sitting in the Hardee's parking lot that 25 up, 3 down isn't enough for them to be able to listen to their teacher and learn from home. And so, we want to make sure we are building out to where it is enough for them to compete on the global marketplace.

Mrs. CAMMACK. So, in the time I have remaining, I just want to do a quick follow-up on that.

So, under the RDOF—and I know this is more the FCC side—it prohibits these entities, these Census tracts, these municipalities, once they have been auctioned off to participate in other programs, but so many of these areas would fall or qualify for USDA. Are there conversations ongoing with FCC and your office about how we can navigate this? Because under that FCC guidance, there is 10 years to deploy the service. We can't afford to wait 10 years.

Ms. TORRES SMALL. So, there absolutely are conversations ongoing about how we coordinate between RDOF and ReConnect Programs. We are considering projects at a very granular level. What does this look like on the ground? And that is something that in this round, we started to do. So, we are looking very specifically at how an application would impact current RDOF places, and making sure that we recognize building out is going to take construction time and beyond, and making sure that whatever decisions we make, they are in coordination across the Federal Government.

Mrs. CAMMACK. Excellent.

Thank you, and I yield back.

The CHAIRMAN. Thank you.

I now recognize Representative Feenstra for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Delgado and Ranking Member Fischbach.

Under Secretary Torres Small, my district is extremely rural and the lack of broadband connectivity is a huge issue for my constituents, like we have heard a lot of others talking about. Rural Development oversees the ReConnect Program, which most recently received \$2 billion through the Infrastructure Investments and Jobs Act. This money is in addition to the over \$1 billion the ReConnect Program has already been appropriated in 2019.

I am wondering, are you coordinating with the FCC, and do you intend to utilize their maps when distributing these new broadband funds? If not, why not?

Ms. TORRES SMALL. Thank you so much, Congressman, and really for your focus when it comes to good reliable internet, it is crucial and it is crucial that, a theme of this conversation is about partnerships. It is about what can we all bring to the table to solve this problem? And what I have seen is that that takes partnerships on the ground, and it takes partnerships in the Federal Government.

And so, we have been working hard to make sure that we are bringing our best to the table, and that is our long-tenured experience working in rural communities, working with different kinds of potential providers. Our experience in Indian Country that we have been able to use with NTIA, for example, as they do some of that outreach, and also, our experience of very granular applications.

Mr. FEENSTRA. So, are you planning to use the maps? Will you be using the maps or not?

Ms. TORRES SMALL. So, we are supporting better maps through our granular assessment of applications. So, we are legally required to look further than the maps currently look when it comes to identifying places served. We have a robust process where you—if there is a question about whether or not there is service, the person who is claiming that they are providing that service will have to respond and demonstrate that service, and then that information goes back to NTIA and FCC as they continue to build out their maps.

So it is, certainly, one aspect of an application that we look at, but we go deeper and then we communicate that information back to the FCC and NTIA.

Mr. FEENSTRA. Okay. So, my question is I have a lot of rural telcos in Iowa, and obviously, they want to participate. They want to be part of the ReConnect Program, and obviously, they rely on the maps and the maps are very important, simply because if somebody horns in on their area, all of a sudden the local telcos are X'ed out. They don't have a chance. So, how do we move forward with this concern?

Ms. TORRES SMALL. That is a really good point, that there are telecom providers that are relying on the maps that are out there. I would say there are also people who are in those areas where it says they are covered and they are not, and we want to make sure that they have access to good reliable internet. So, the maps give us a chance to look at an area, and then identify what truly is served and not, and identify projects based on that. That is a legal

requirement from the Rural Development side, but I am happy to coordinate with you and your team further as you identify potential challenges.

Mr. FEENSTRA. Yes, this is, to me, a really big topic because what we have seen in Iowa is you have a big national company or somebody that says, "Hey, we are going to come in and provide you with broadband," and it really doesn't happen or it doesn't have the upload/download speeds. Whereas our rural telecommunications that have invested a lot of dollars into rural areas are not getting a chance, and this really concerns me. All I want is the best broadband possible for all these districts, and I sometimes think that we are down this path of one size fits all, and I am here to say, can we work together on this?

Ms. TORRES SMALL. I think we can absolutely work together. Rural Development lives and breathes the motto one size doesn't fit all. That is why we have regional folks who are reviewing the applications who know the partners on the ground. That is why we do look beyond the maps and look at the specific people and whether or not they actually have service, and that is why we have built this set of priority points so the people can cobble together different types of projects that answer the specific challenge on the ground, like the constituents in Iowa that you represent.

Mr. FEENSTRA. Well, thank you so much.

I got just a little bit of time left. Under Secretary, the USDA's BioPreferred Program has proven to spur economic growth and job creation. Through its creation in the 2002 Farm Bill, and the expansion in the 2014 Farm Bill, how has this program achieved its mission to develop and expand biobased products? Again, this is very big for Iowa and I would like to know, what recommendations do you have for the BioPreferred Program?

Ms. TORRES SMALL. Yes. Biobased products are definitely exciting. It is where you take what could have otherwise been a byproduct and turn it into a product itself. Just a small fact, we used biobased utensils at my wedding, so we certainly know that it is an opportunity for the future.

The biobased BioPreferred Program that you are talking about helps identify to the Federal Government and to purchasers that there are these products out there. It can also support those markets, and we look forward to working with you more to make sure that we are giving you the information you need to get this done.

[The information referred to is located on p. 205.]

Mr. FEENSTRA. Thank you so much for your comments, and I yield back.

The CHAIRMAN. Thank you.

I now recognize Representative Balderson for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman.

Madam Under Secretary, thank you for being here today. It is good to see you.

One of my concerns with these Federal dollars, and specifically, with the ReConnect Program, is overbuilding. As you are probably aware, the IIJA redefined *eligible service areas* for the ReConnect Program from 90 percent of households underserved to 50 percent. Other IIJA broadband programs, such as those administered by the NTIA, have an 80 percent underserved threshold.

My first question has two parts. Would you support raising the unserved threshold from 50 percent to at least 80 percent in order to be in line with the IIJA programs?

Ms. TORRES SMALL. Thank you so much, Congressman Balderson. It is wonderful to see you, too. We will certainly do what Congress tells us to do, and we have shown our ability to do that with the different instructions based on the different amounts that have been allocated to ReConnect through CARES and then through other Acts, and then we will continue to adapt to that.

One of the things that we have seen is that often, companies are trying to cobble together projects that will pencil out, and so, that means reaching unserved people, but sometimes in places that are also surrounded by a little bit more coverage. And so, it will be interesting to see with the bipartisan infrastructure law how that impacts the type of projects that are presented. And we are happy to work with you to provide information in the future about that.

Mr. BALDERSON. All right, thank you very much.

And how does the USDA plan to avoid overbuilding the other federally qualified projects when the USDA is operating under different standards than the NTIA?

Ms. TORRES SMALL. I mentioned earlier just the impact that building to 100 up, 100 down can have for farmers when they want to be part of the solution when it comes to precision ag, especially with increased droughts that we are seeing, for example. And so, recognizing that we want to make sure we are building to the needs of the future, not the past, and with COVID-19, we certainly saw that 25 up, 3 down is the past.

And so, we are committed to prioritizing those places that don't have that service now, but also recognizing we need to look at what it is going to take to have a vibrant rural community in the future.

Mr. BALDERSON. Okay, thank you very much.

My next question is, and I agree with your statement that broadband is a make-or-break issue for rural America. To that end, when USDA makes an award under its ReConnect Program or issues some other funding support to expand broadband, what steps does the Department take after the fact to measure that the promised service is being delivered?

Ms. TORRES SMALL. That is a really great question, and we will follow up with more details on it as we continue to make new awards when it comes to ReConnect and the current investments now. But part of the Rural Development's special sauce and its expertise is people on the ground, it is the GFRs who know those providers, and so, we are available when there are concerns. People who are expressing, "Hey, they say we are being served but we are not really," and being able to verify whether or not that claimed service is truly existing.

[The information referred to is located on p. 206.]

Mr. BALDERSON. Okay, thank you. I look forward to that.

My last question is: broadband availability is critical in rural America, not just at home and in school, but also in the field as our farmers adapt precision agriculture solutions. Unfortunately, most broadband performance data is focused either on buildings that have fixed connections, or on roads where wireless connectivity can be mapped through drive testing. But with this

enhanced focus on precision agriculture, we are missing a key element. Would you consider partnering with broadband measurement companies to collect better data about wireless broadband availability over arable lands?

Ms. TORRES SMALL. We absolutely need to use tools to find out—have more precise identification of where broadband exists and where it doesn't, and that is especially true when it comes to Rural Development that has to have more specific information for its awards. So, we would certainly love to follow up with your team about the research that you are talking about, and recognize that we also have a pretty—a catch-all system in terms of identifying what places are claimed to be covered, then verifying that they are covered, requiring the company that is claiming that to show that, and then if necessary, testing on the ground. But we would love to see if there are other ways to address that.

The CHAIRMAN. Thank you, and I recognize Representative Schrier for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman, and welcome, Under Secretary Torres Small. It is wonderful to see you, and I want to thank you for taking the time to visit my district a few weeks ago. We loved having you there.

Today, I would like to focus on how USDA Rural Development programs can help the development of a strong wood products industry, and specifically, I would like to focus on one pending application to the Business & Industry Loan Guarantees Program that is crucial to my home State of Washington. So, I would love for you to give full consideration to the X-Caliber Rural lending applications to the USDA's B&I Program for the construction and development of projects to create the Darrington Wood Innovation Center, which will actually house three separate entities. Together, they will enable the Darrington Wood Innovation Center to develop a mass timber production facility and serve as a truly one-of-a-kind hub for innovation in wood product manufacturing. So, this will bring high quality jobs back to a rural area in need of investment and economic revitalization. The center represents a new model, really, for the future of the nation's wood product industry by focusing on cross-laminated timber, which encourages long-term forest management, that improves forest health, reduced wildfire risk, all while sequestering carbon, creating family-wage jobs, and providing materials that will lower the cost of housing.

And for the past 5 years, the Town of Darrington in collaboration with private industry and nonprofits and other community stakeholders has really pioneered the development of this new rural industrial manufacturing complex. This effort has already attracted \$6 million in grants from the Economic Development Administration, and \$2 million in grants and loans from Washington State, with more state funding likely on the way.

So, it has broad support and this first phase involves the construction of a cross-laminated timber plant, modular fabrication facility, and remanufacturing sawmill and kiln facility. These projects are seeking bids now, and they are ready to go as soon as possible. So, this is a priority in Washington State, and is fully in line with the purpose of the B&I Program, and I strongly support the application and hope you to give it strong consideration.

As you know, Madam Under Secretary, communities in my district and throughout Washington State are at extreme wildfire risk, and approximately 3 million acres of forestland is in need of restoration and resiliency. So, developing this strong wood products industry represents a unique opportunity to create wages, revitalize a community, make our forests healthier and resilient, reduce housing prices, and increase carbon sequestration long-term.

I was wondering, Under Secretary Torres Small, just how you think about USDA's Rural Development programs and how they might be able to support the development of the wood products industry in Washington State and around the country?

Ms. TORRES SMALL. Congresswoman Schrier, thank you so much for your work for Washington State, for your support in finding innovative solutions like when it comes to wood products. We certainly are aware of just how much support this one project has across the board, and I know that my team has been in close communication with your team about that. We certainly recognize that level of support and appreciate your passion for your community.

We do have some statutory requirements that we have to evaluate when it comes to the B&I Program. When it is one project, if there are co-borrowers, you can't borrow more than—I think it is \$20 million. So, certainly we will continue to keep in close contact with you and your team about how this may or may not impact this project.

Ms. SCHRIER. Thank you very much. I really appreciate your attention to it, and calling that to my attention so I can address it on our end.

I want to thank you for being here, congratulate you on your position, and I yield back.

The CHAIRMAN. Thank you.

I now recognize Congresswoman Plaskett for 5 minutes.

Ms. PLASKETT. Thank you very much, Mr. Chairman. Thank you for this hearing. I am especially glad to see Under Secretary Torres Small with us. We know the tremendous work that she did as one of our colleagues, and we know that she is going to bring that same energy and dedication to the role that she has now.

Under Secretary, one of the areas, of course, as you can imagine, that is important to me is disaster aid, living in an area that is tremendously impacted by climate change. Are there any Rural Development components to disaster aid after a rural area has experienced disaster, and is there anything Congress should consider in this regard?

Ms. TORRES SMALL. Congresswoman Plaskett, thank you so much for your work in the Virgin Islands and for the country, especially when it comes to disasters and extreme weather, which we are seeing increasingly.

So, since I have been on the job since October, any time there is a disaster, I get an email late that night identifying what the issue is, identifying how extensive the damage is, and what the region is. And then every morning, there is an update in terms of what is happening to our offices on the ground, because that is often—we have over 450 offices across the country, and so, identifying that our employees on the ground—the properties, so that the loans that we have given for both single-family and the people liv-

ing in apartments, multi-family, and any impact on those properties, and then the area in general, because there are resources that can be brought to bear for folks even if they are not currently borrowing within Rural Development.

We are coordinating closely with FEMA to make sure that they have the information about available units, either single-family or multi-family housing near the area if they need access to places to live within that, and then we are also communicating with our borrowers, because if they have a loan payment, they are going to be, on top of everything else that they are worried about at that moment, they want to know what is going to happen in terms of the expectations for those loan payments.

So, those are some—we also, I will just say, work closely with FEMA to make sure FEMA is taking the lead. It is important to have that lead agency, but also coordinate carefully with them in terms of the resources we have to bear.

Ms. PLASKETT. And is there anything that you believe that we as Congress should do to support you, particularly when it comes to speeding up and making sure that coordination takes place immediately after a disaster so that that aid can get right to individuals where they need it?

Ms. TORRES SMALL. I really appreciate your focus on this issue, and I am happy to provide any technical assistance in terms of specific challenges that you are seeing on the ground. I think that is maybe the way we can be best responsive to finding the best solution to support your constituents.

Ms. PLASKETT. Thank you.

The USDA has provided a variety of assistance and grant programs to U.S. Territories, almost all of which are considered rural areas. But my colleagues and I believe that there can be improvement in the area of energy assistance, renewable energy adoption, energy efficiency, and energy grid resiliency. The viability and sustainability of energy in the Virgin Islands and Puerto Rico is of the utmost importance for the well-being of our rural communities. Energy costs on our islands are higher than anywhere else in the country, and our geographic location leaves us vulnerable to climate change, but also provides opportunities for adoption of innovative energy resources.

Congressman Ted Lieu and I introduced the Renewable Energy for Puerto Rico and the U.S. Virgin Islands Act, H.R. 2791, to create a small, new assistance program within the Agriculture Department which grants may be awarded to nonprofits to facilitate renewable energy development, energy efficiency, smart grids, micro grids, *et cetera*. Can you provide any perspective on the soundness of a small new funding stream for USDA to support renewable energy development and energy efficiency and resiliency in U.S. Territories with our unique energy needs?

Ms. TORRES SMALL. First, it just warms my hear that your Virgin Islands, as they address the challenges of climate change, also want to be part of the solution. We are eager to provide technical assistance on your specific legislation, and recognize that it is crucial to be providing support on the ground for developing those solutions and climate-smart tools.

Ms. PLASKETT. Thank you very much for your support, and I yield back.

The CHAIRMAN. Thank you.

I now recognize Representative Scott from Georgia for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman, and Madam Under Secretary, it is nice to see you. I am sorry that I am seeing you through Zoom, but I was in 2118, which is a committee room that I know you spent a lot of time in as a Member of the Armed Services Committee. So, I hope you are well, and look forward to seeing you in person.

I have a couple quick questions that deal with the middle mile with regard to broadband access. The 2018 Farm Bill provided the Department with the authority to finance the middle mile infrastructure projects. To date, my understanding is that no funds have been appropriated for middle mile projects. Could you speak to the importance of middle mile connectivity for rural communities, and what is the Department doing to advocate within the Administration to put these resources in the middle mile to support rural America?

Ms. TORRES SMALL. Congressman Scott, it is wonderful to see you even virtually, and I deeply appreciate your question about how do we get the backbone of infrastructure across rural America so that we are certainly reaching that last mile, the last homes, but also recognizing that as part of that, building that middle mile connectivity is crucial. And it is certainly something that through the Agriculture Committee, Rural Development has been working on for decades to address.

I am happy to provide any technical assistance in terms of specific questions you might have in terms of the impact of the previous investments that we have made as you evaluate and work with your colleagues in Congress about future investments.

Mr. AUSTIN SCOTT of Georgia. Thank you, Madam, and I think kind of the frustration for everybody is how slow it has been to actually get the resources to the people to implement the technology that is needed in rural America.

We also have a request for the Department to provide a comprehensive report on all of the broadband related activities financed by the Department in the preceding fiscal year. The Fiscal Year 2020 report was released at the end of January of 2022, is my understanding. That is about a year and a half after the close, and certainly you, being a Member of Congress, you understand the frustration with not having the facts that we need to make the decisions that we make. So, any help going forward with making sure that those reports are done in a more timely manner would be appreciated. And any idea when we can actually see the 2021 report come out?

Ms. TORRES SMALL. I want to make sure we get you the best information possible, so I will make sure our team follows up with you in terms of that.

[The information referred to is located on p. 206.]

Mr. AUSTIN SCOTT of Georgia. Okay. Well, we very much look forward to working with you. We want to see our rural utility services have the ability to put broadband in and deliver broadband, and obviously, what technology is right in one part of the county

might not be right in another part of the county. So, I certainly look forward to working with you on the flexibility with our service providers, and how they can best deliver that.

But I appreciate your work, I appreciate you personally, and I look forward to seeing you and working with you to resolve these issues for rural America. Thank you, Madam Under Secretary.

Ms. TORRES SMALL. Thank you, Congressman Scott.

The CHAIRMAN. Thank you.

I now recognize Congresswoman Pingree for 5 minutes.

Ms. PINGREE. Thank you very much, Mr. Chairman. Thank you for having this hearing. I am pleased to be here, and welcome, Madam Under Secretary. We are so happy to have you in that position, and it is just wonderful to hear your knowledge and enthusiasm. It all comes through in answering everyone's questions. We look forward to having you come visit us in Maine sometime, and I have a few questions for you today.

So, I will just jump right in. I really appreciate that so many people have asked broadband questions, so you clearly know how important it is to everyone on this Committee. We have some issues in Maine related to ReConnect, and I feel like I have been bringing this up for a while, but we are the model of the communities that you are talking about when you mention the town in Iowa where you have to go to a separate, you have to go up a hill somewhere to get cell phone service. That is pretty much everywhere in Maine. So, we are a very rural state and we have had a lot of issues in getting connected, and we know how critically important it is.

But a lot of them are struggling, the very small projects. These are projects of \$1 million or less, but the program requirements are so burdensome they are still struggling to move forward 2 years later. We compare that to the broadband projects funded by the state-allocated CARES Act funding. They are completing their builds in 8 to 12 months. So, can you talk to me a little bit about any flexibility you can provide to existing ReConnect awardees who are struggling? Is there support that Rural Development could provide to existing ReConnect awardees to help them navigate the program requirements? We really want to see them up and running.

Ms. TORRES SMALL. Thank you so much, Congresswoman Pingree, for working with your constituents and applicants as we try to address this challenge. We certainly want to be responsive to their needs and look forward to following up with you specifically on the challenges you are facing. Because when it comes to Rural Development, one of our strengths, and frankly, one of the biggest needs in serving rural communities is something I mentioned in my opening statement. You don't necessarily have a grant writer. That lack of capacity to be able to do the follow up on this work, you don't have someone who is paid specifically to make sure that this million dollar project is—you are crossing all the T's and dotting all the I's. And thankfully with the bipartisan infrastructure law, when it comes to ReConnect, there was a specific amount of money that was set aside for technical assistance, and I look forward to working with you as that program gets developed to identify potential ways to be that resource for communities as they are going through this.

We also have the GFR's in regions across the country that have experience both from the application stage with these specific projects, and certainly will bring that as an opportunity for support, and then where we have seen some time that it is taking to get these projects off the ground, sometimes with environmental review, for example, we have implemented a focused tiger team to try to address some of those challenges and speed along the process with some of the consultations that were necessary that, frankly, slowed down a little bit in the midst of COVID.

So, we are eager to work with you specifically on the project, because it is often a very specific issue that is being faced, but that is why that technical assistance is so crucial so that we can respond to those specific needs.

Ms. PINGREE. Great. Well, we will definitely follow up with those grantees that are still dealing with difficult situations.

Another quick question on the Value-Added Producer Grant and the food safety implementation. In the 2018 Farm Bill, I worked to include dedicated funding to help producers upgrade their practices and equipment to improve food safety through this program. So, we are already talking about the 2023 Farm Bill, but this change has still not been implemented. I know USDA held a listening session about this in the fall, but I want to just get an update about when implementation of this food safety financial assistance through the Value-Added Producers Grant might be available?

Ms. TORRES SMALL. Thank you so much, Congresswoman. I will make sure that my team is following up with you on that. We certainly have been implementing a lot of new programs in the midst of COVID to respond to some of the most urgent needs. That has created a capacity challenge, and I want to make sure we are giving you the best information about the promulgation timing for the Value-Added Producer Grant and the food safety piece that you worked so hard on.

Ms. PINGREE. Great. That is such a burdensome cost for many small- to medium-sized farmers. It would be great to make sure they get that assistance.

Last, I just have 30 seconds so I will be quick about this. I am a little concerned about in the Meat and Poultry Processing Expansion Program, \$150 million investment for projects up to \$25 million. This is probably just going to be a statement to you, but I am worried about that being used for larger scale projects, and we all know it has been brought up by other Members how important it is to expand our existing capacity with small- to medium-sized processors. So, I am going to have to take your answer, get it later, but I am just emphasizing that point. We want to make sure that \$150 million doesn't get eaten up in a few big projects. We really want it spread out.

Ms. TORRES SMALL. Thank you. We look forward to following up on the record.

Ms. PINGREE. Great. I yield back. Thank you very much. Good to see you.

The CHAIRMAN. Thank you.

I now recognize Congresswoman Spanberger for 5 minutes.

Ms. SPANBERGER. Thank you, Chairman Delgado, for holding this important hearing. It is so exciting to be here today with our friend

and former colleague and Under Secretary for Rural Development, especially as we are starting to plan for the 2023 Farm Bill.

Certainly, over the last couple years, we have seen significant challenges facing our communities at large, but in particular our rural communities with the unprecedented and unique challenges that we faced because of COVID and the associated economic hurdles. So, these challenges in rural communities, as you well know, have ranged from broadband infrastructure challenges to supply chain bottlenecks that really have ravaged critical industries like meat and poultry. And in response to these challenges, USDA's Office of Rural Development and Congress have collaborated to offer really critical assistance and solutions through funds from the American Rescue Plan, we have seen new programs that have been launched to address food supply chain concerns, improve access to broadband and telehealth, and to make our critical industries whole.

So, to follow up slightly on Congresswoman Pingree's question as well, I was so proud to host you in my district with Under Secretary Moffitt to discuss USDA's announcement of the Food Supply Chain Guaranteed Loan Program to help expand meat and poultry processing capacities using funds from the American Rescue Plan. I am very excited that that program is, in part, based on the Butcher Block Act (H.R. 4140), which I co-led alongside Dusty Johnson. And as you saw during that visit to my district, there are so many small processors in communities like mine who are ready to answer the call and help reduce bottlenecks in our meat supply chain, but need that bit of support.

So, could you give an update on this program, how it pertains to the funds that have been directed for meat and poultry processing, and how many awards have gone out so far?

Ms. TORRES SMALL. Congresswoman Spanberger, thank you so much for that question and for your advocacy for meat processors and for agriculture across the board. I really appreciated the change to get to Gordonsville, Virginia, and to meet ranchers and meat processors who were trying to answer that call in the midst of COVID. People were wanting meat, and they couldn't get it processed in time. So, they were trying to find all sorts of creative ways to make that work, and everything down to the county zoning made it hard. And so, all of those things they have to navigate is something we are certainly looking at.

So, you mentioned the Food Supply Guaranteed Loan Program, which I think is a crucial opportunity to work with local lenders on projects, but sometimes for the smaller ones, they may need more technical assistance. And that is why Under Secretary Moffitt was there. They had a program that awarded \$32 million for 167 meat and poultry slaughter and processing facilities to invest in that interstate commerce, and there will be another round with \$22 million. So, we are certainly looking at some of that assistance, technical assistance as well.

And then when it comes to MPPEP and making sure that we are building out the middle when it comes to meat processing. The first focus is kind of that last mile, that last little piece to get a project over the edge to expand options, but as we move into the future, also trying to identify other projects that are kind of more at the

beginning of their work, and how they can work with local lenders to receive support at the beginning stages of their work to take it to fruition. And that certainly could include independent processors and the smaller scale processors as well.

Ms. SPANBERGER. And certainly, as we work towards the 2023 Farm Bill, I think we will want to work in concert with your office to determine how it is that we should consider extending some of the funding especially for these new loans, what we can learn from the implementation thus far, and working together with you and Under Secretary Moffitt certainly how we can ensure that we are doing right by our small producers and in so many cases, would-be meat processors.

In your written testimony, you mentioned investments made through the Rural Energy for America Program, the REAP Program. I have been a very strong supporter of REAP, and have multiple pieces of legislation kind of focused on this program. Notably, this program and the bill that I sponsored would dramatically increase funding for the REAP Program, expand eligibility, and create a fund for underutilized technologies, including biodigesters or biofuel-related infrastructures.

And so, as we are seeing insecurity and instability related to Putin's horrific invasion of Ukraine and we are seeing the increase of cost of natural gas and gasoline, I think this speaks now more than ever that funding to support REAP is vital. It gives producers a bit of independence and certainly reduces their dependence on foreign energy and allows them to lower energy costs.

My time is up, but I will follow up with questions for the record to see what your thoughts may be on how this incredibly important program really can give some independence to our rural communities and our farmers.

Thank you for being here. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, and that concludes the question-and-answer period today.

The work of Rural Development is vital to ensure that our rural communities have the resources they need to become resilient and to serve the members of their communities. As a former Member of the House Agriculture Committee, Under Secretary Torres Small understands the importance of the policy decisions made by this Committee, and it was certainly great to hear directly from you today about Rural Development's work and relevant policies in the 2018 Farm Bill. I want to thank you, Under Secretary, and with that, we will adjourn.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witness to any question posed by a Member. This hearing on the Subcommittee on Commodity Exchanges, Energy, and Credit is adjourned.

[Whereupon, at 11:31 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA

December 22, 2021

Hon. THOMAS J. "TOM" VILSACK,
Secretary,
U.S. Department of Agriculture,
Washington, D.C.;

Hon. XOCHITL TORRES SMALL,
Under Secretary of Agriculture for Rural
Development,
U.S. Department of Agriculture,
Washington, D.C.

Secretary Vilsack and Under Secretary Torres Small:

Throughout the COVID–19 pandemic, Americans have relied on their high-speed broadband connections more than ever to work, educate their children, access health care, and connect with loved ones. Unfortunately, these benefits remain out of reach for millions of Americans, particularly those living in rural and remote areas, who continue to lack access to broadband connections.

Through the Coronavirus Aid, Relief, and Economic Security (CARES) Act,¹ the Consolidated Appropriations Act of 2021 (the Act),² the American Rescue Plan Act (ARPA),³ and the Infrastructure Investment and Jobs Act,⁴ Congress provided billions of dollars for programs across Federal agencies to bridge broadband connectivity gaps.

The U.S. Department of Agriculture (USDA) is one of the agencies charged by Congress with administering broadband funding under the COVID–19 recovery packages. USDA's ReConnect Program received over \$2.6 billion to fund grants and loans for broadband deployment in rural areas.

We are concerned that key policy decisions on how to distribute the \$1.15 billion in the third round of the ReConnect Program will result in duplicative and inefficient use of taxpayer dollars. Unfortunately, USDA is planning to provide funding for communities that are served with internet speeds of greater than 25/3 Mbps, which could leave those in rural America still lacking such service further behind and exacerbate the digital divide. We urge you to focus funding for unserved communities that lack access to any broadband connection rather than toward duplicative or upgraded service for those communities which already have internet service of 25/3 Mbps.

Meeting the needs of these unserved communities first before addressing the needs of better served communities is essential to closing the digital divide. To help identify these communities, the Federal Communications Commission (FCC) is in the process of implementing the Broadband DATA Act, which will provide granular data on broadband service across the United States. We encourage USDA and every Federal agency to utilize this data as it becomes available to assist in identifying unserved communities and streamlining the application process.

We also believe that forward-looking broadband service standards must be balanced by a technologically neutral approach. USDA must ensure that unserved communities gain broadband access as expeditiously and cost effectively as possible, while securing investments in broadband systems that will provide sufficient service far into the future.

As Republican leaders of the Committees on Agriculture, Appropriations, Energy and Commerce, and Oversight and Government Reform, we are focused on ensuring that the enormous Federal investments in broadband are spent as efficiently as possible and targeted to those unserved communities that need it most. It is our responsibility to ensure that USDA's rural broadband activities are effectively managed and coordinated across the Federal Government.

To gain a better understanding of how the substantial changes made to the ReConnect Round 3 application were developed, we request responses to the following questions, no later than January 14, 2022:

1. Rounds 1 and 2 of ReConnect defined *sufficient access to broadband* as internet speeds of greater than 10/1 Mbps. Similarly, the 2018 Farm Bill established 25/3 Mbps as the minimum broadband speed threshold. Yet, in Round 3 of ReConnect *sufficient access to broadband* is redefined as internet speeds of greater than 100/20 Mbps, a significant increase over both the previous ReConnect rounds and recent legislative history.

¹P.L. 116–136 at 138 Stat. 281 *et seq.*

²P.L. 116–260.

³P.L. 117–2.

⁴P.L. 117–58.

What specific data and analysis did you and your staff rely on to determine that *sufficient access to broadband* should be defined as internet speeds of greater than 100/20 Mbps?

2. The radical shift in the definition of *sufficient access to broadband* shift will have the effect of significantly expanding the areas of eligibility under the program, including encompassing potentially any area with service speeds of less than 100/20 Mbps.

Please provide a map of what new areas have been made eligible under ReConnect Round 3 as compared to the areas eligible under ReConnect Round 1 and 2, and areas eligible under the requirements in the 2018 Farm Bill.

Under each map, how many additional communities will be competing for USDA's limited program resources compared to the previously eligible communities?

3. ReConnect Round 3 requires that funded projects be technically capable of provide symmetrical internet speeds of 100/100 Mbps. Please describe what currently available technologies are capable of meeting these requirements in rural communities. How could this requirement exclude common broadband technologies utilized in rural communities?

What specific data and analysis did you and your staff rely on to determine that symmetrical broadband speeds were a necessary requirement to meet the needs of rural Americans?

4. Historically, USDA broadband programs have treated all potential broadband providers equally, and not advantaged or disadvantaged any type of provider. Yet, the rules for ReConnect Round 3 provide a clear preference for certain types of providers.

What specific data and analysis did you and your staff consider to justify this break from longstanding historical practice?

To gain a better understanding of your efforts to administer these funds, we request your response to the following questions no later than January 14, 2022:

1. What steps are you taking to coordinate USDA's broadband funding investments, including the recently announced third round of ReConnect funding, with those led by other Federal agencies, including the FCC, the Department of the Treasury, the Department of Commerce, and the Department of Education?
2. How will you ensure that USDA does not invest in broadband projects that will compete with or undermine broadband projects funded by other agencies?
3. What is the Department's justification for not prioritizing funding for unserved areas before upgrading networks in areas that already have service?
4. What steps are you taking to avoid subsidized overbuilding of privately-owned networks, which has been shown to discourage broadband investment and exacerbate the digital divide?
5. How are you working to ensure that different technologies and types of providers are leveraged, so that the most remote areas get served expeditiously and cost-effectively?
6. What specific steps are you taking to track and report to the FCC and the National Telecommunications and Information Administration the locations where USDA is funding broadband projects, pursuant to section 904(b)(2) of Division FF of the Consolidated Appropriations Act of 2021?⁵

In addition, we request that you provide a detailed accounting of any CARES Act and Consolidated Appropriations Act of 2021 funds that you have awarded or allocated to support broadband connectivity. Specifically, we request the following information no later than January 14, 2022:

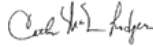
7. A list of all funding awards that have been awarded or allocated to support broadband connectivity and the amount of each award.
8. For each award that will be used to fund broadband deployment or build-out:
 - a. The geographic area and/or location(s) that the project will cover and the level of service (bandwidth and latency, if available) that will be provided to the covered area and/or location(s);
 - b. Whether an existing provider already offers broadband service in the covered geographic area and/or location(s); and

⁵Pub. L. No. 116-260, 134 Stat. 1182 (December 27, 2020).

- c. Whether funds have been awarded through other Federal programs (such as the FCC's Universal Service Fund, Emergency Connectivity Fund, or COVID-19 Telehealth Program; the Department of the Treasury's Coronavirus Relief Fund, Coronavirus State and Local Fiscal Recovery Fund, or Capital Projects Fund; the Department of Education's Education Stabilization Fund; and the Department of Commerce's Broadband Infrastructure Program, Tribal Broadband Connectivity Program, or Connecting Minority Communities Pilot Program) to provide broadband service to the covered geographic area and/or location(s).

Thank you for your attention, and we look forward to your timely responses. If you have any questions, please contact Kate O'Connor at (202) 225-3641, Lamar Echols at (202) 225-5074, or Paul Balzano at (202) 225-0317.

Sincerely,



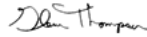
Hon. CATHY McMORRIS RODGERS
Ranking Member
Committee on Energy and Commerce



Hon. JAMES COMER
Ranking Member
Committee on Oversight and Reform



Hon. KAY GRANGER
Ranking Member
Committee on Appropriations



Hon. GLENN "GT" THOMPSON
Ranking Member
Committee on Agriculture

Cc:

The Honorable FRANK PALLONE, JR.
Chairman, Committee on Energy and Commerce

The Honorable DAVID SCOTT
Chairman, Committee on Agriculture

The Honorable SHALANDA YOUNG
Acting Director, Office of Management and Budget

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. XOCHITL TORRES SMALL, UNDER
SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE

Insert 1

Mr. FEENSTRA. . . .

I got just a little bit of time left. Under Secretary, the USDA's BioPreferred Program has proven to spur economic growth and job creation. Through its creation in the 2002 Farm Bill, and the expansion in the 2014 Farm Bill, how has this program achieved its mission to develop and expand biobased products? Again, this is very big for Iowa and I would like to know, what recommendations do you have for the BioPreferred Program?

Ms. TORRES SMALL. Yes. Biobased products are definitely exciting. It is where you take what could have otherwise been a byproduct and turn it into a product itself. Just a small fact, we used biobased utensils at my wedding, so we certainly know that it is an opportunity for the future.

The biobased BioPreferred Program that you are talking about helps identify to the Federal Government and to purchasers that there are these products out there. It can also support those markets, and we look forward to working with you more to make sure that we are giving you the information you need to get this done.

I concur that the BioPreferred® Program offers an opportunity to de-carbonize the nation's everyday consumer biobased products, drive the nation's biobased economic growth, create jobs, promote sustainable production of consumer biobased products, and create opportunities for climate-smart practices.

The 2018 Farm Bill has reassigned delivery of this program to Rural Development and specifically to the Rural Business—Cooperative Service. Rural Development reports that the program currently has over 20,000 products registered in the BioPreferred® Program Catalog, supports over 6,000 USDA Certified Biobased Products,

has participating businesses from 49 countries, and has 3,342 companies participating overall. This year we will celebrate the 20 year anniversary of the Biobased Markets Program which follows our recognition of the 10 year anniversary of the BioPreferred® label in 2021. In calendar year 2021, 976 applications were certified which represents the greatest number of labels awarded in a single year.

At present, there are no requirements for Federal agencies to report their biobased product purchasing data, so year-to-year biobased product spending results are unknown. As examples, there are no requirements to report spending related to supply contracts or direct purchasing via purchase cards, fleet cards, or catalog purchases. However, there are requirements for Federal service and construction contractors to report their biobased product purchasing via the System for Award Management. In FY 2021, Federal service and construction contractors reported in excess of 76 million dollars in biobased product purchasing.

Rural Development would like to see increased reporting of biobased product procurement across the Federal Government and our team has been proactive in affecting change since taking over this program. Despite challenges with documenting and reporting biobased product procurement, we continue working toward solutions.

- The USDA BioPreferred Program has taken steps to meet its goal of increasing biobased product purchasing. These steps include:
- Reviewing current service and construction solicitations to ensure biobased product purchasing and reporting requirements are included. If the solicitation is non-compliant, the Contracting Officer receives a communication requesting an amendment to correct the error.
- Posting a new web-based training program for Contracting Officers which will be available on the USDA BioPreferred® Program website.
- Conducting outreach with events such as GSA SmartPay for purchase card managers, the Federal Environmental Symposium, and the Agricultural Outlook Forum.
- Launching a newsletter directed to Federal Government employees called BioBuzzGov which focuses on information for procurement and sustainability professionals in the Federal Government.

Insert 2

Mr. BALDERSON. . . .

My next question is, and I agree with your statement that broadband is a make-or-break issue for rural America. To that end, when USDA makes an award under its ReConnect Program or issues some other funding support to expand broadband, what steps does the Department take after the fact to measure that the promised service is being delivered?

Ms. TORRES SMALL. That is a really great question, and we will follow up with more details on it as we continue to make new awards when it comes to ReConnect and the current investments now. But part of the Rural Development's special sauce and its expertise is people on the ground, it is the GFRs who know those providers, and so, we are available when there are concerns. People who are expressing, "Hey, they say we are being served but we are not really," and being able to verify whether or not that claimed service is truly existing.

Once an award is approved, USDA takes a multifaceted approach to monitor the progress of the construction. Award funds are only advanced for specific projects that have been approved for funding. Our national office staff monitors the progress of the advances and ensures that the construction is in conformance with the approved application. In addition, USDA has general field representative (GFR) located in each region throughout the country that visits the project and inspects construction that is being completed. Awardees are also required to submit reports that proved the geo-coded locations of all premises served and submit a final report when all construction has been completed. The GFR will then conduct field visits to make sure that the premises are getting served.

Insert 3

Mr. AUSTIN SCOTT of Georgia. . . .

We also have a request for the Department to provide a comprehensive report on all of the broadband related activities financed by the Department in the preceding fiscal year. The Fiscal Year 2020 report was released at the end of January of 2022, is my understanding. That is about a year and a half after the close, and certainly you, being a Member of Congress, you understand the frustration with not having the facts that we need to make the decisions that

we make. So, any help going forward with making sure that those reports are done in a more timely manner would be appreciated. And any idea when we can actually see the 2021 report come out?

Ms. TORRES SMALL. I want to make sure we get you the best information possible, so I will make sure our team follows up with you in terms of that.

This report will be finalized in coming months, and we are happy to share it with it you.

SUBMITTED LETTER BY HON. JIM MATHESON, CHIEF EXECUTIVE OFFICER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

March 7, 2022

Hon. ANTONIO DELGADO,
Chairman,
Subcommittee on Commodity Exchanges,
Energy, and Credit,
House Committee on Agriculture,
Washington, D.C.;

Hon. MICHELLE FISCHBACH,
Ranking Minority Member,
Subcommittee on Commodity Exchanges,
Energy, and Credit,
House Committee on Agriculture,
Washington, D.C.

Dear Chairman Delgado and Ranking Member Fischbach,

On behalf of National Rural Electric Cooperative Association's over 900 members, I write to express our interest in and appreciation for your upcoming hearing to review United States Department of Agriculture (USDA) Rural Development programs authorized in the 2018 Farm Bill. We applaud your leadership and look forward to working with you as you write the next farm bill.

As key stakeholders and participants in USDA Rural Development programs, member-owned, not-for-profit electric cooperatives utilize many of these programs to serve the poorest, most rural parts of our country. We see ourselves as electric utilities that are more than just poles and wires companies. USDA Rural Development programs below are just a few of the tools our members use to serve rural communities and help elevate rural America.

- ***RUS Electric Loan Program***—Low-cost loans from the RUS electric loan program are essential to helping co-ops meet the challenge of building high-cost electric infrastructure in hard to serve, rural areas.
- ***Broadband***—Electric co-ops are making important strides to bridge the digital divide through broadband deployment. In fact, more than 200 electric cooperatives are now, in some shape or form, in the broadband business. We pride ourselves in being good stewards of the financing Congress has made available and see ourselves particularly well-positioned to provide broadband services to consumers in unserved areas of the country.
- ***Rural Energy Savings Program (RESP)***—RESP offers low-cost financing to electric cooperatives for cost-effective, energy-efficiency retrofit projects at customers' homes.
- ***Rural Energy for America Program (REAP)***—REAP provides grants and loans to develop renewable energy systems and implement energy efficiency measures.
- ***Rural Economic Development Loan and Grant (REDLG)***—Under the REDLG program, proceeds to the Federal Government from Rural Utilities Service (RUS) loans are used to finance economic development projects in rural communities. Electric cooperatives partner with community stakeholders on REDLG projects to construct essential infrastructure, renovate hospitals, build libraries, and expand businesses, among other things.

Thank you again for your consideration of these critical programs and your service on behalf of the communities that they serve. Please feel free to reach out to me or anyone on my staff if we can be of assistance.

Sincerely,



CEO, NRECA.

SUBMITTED QUESTIONS

Response from Hon. Xochitl Torres Small, Under Secretary for Rural Development, U.S. Department of Agriculture

Question Submitted by Hon. Ann M. Kuster, a Representative in Congress from New Hampshire

Question. Madame Under Secretary, I wanted to ask you about The Healthy Food Financing Initiative, which provides grants to increase the availability of affordable, healthy food in underserved communities, including in rural America.

In 2019 and 2020, over \$4 million in small, targeted grants were awarded nationwide through HFFI—including to the Fresh Start Farms Food Hub, a collective of immigrant and refugee farmers in New Hampshire.

Can you talk more about the impact this program has on the rural economy and food access? Also, the statute also allows HFFI to provide loans to increase the affordable, healthy food in underserved communities. Can you explain why there have not been any loans made under this program?

Answer. Thank you for your question. During the first 2 years of the Targeted Small Grants Program (TSGP), HFFI funding provided \$4.4 million in grants to 30 recipients in 23 states. As a result of this assistance, we saw the following impacts:

- Over 460 Permanent jobs were created or saved;
- Approximately 182,750 square feet of space was created or renovated to sell, store or distribute food;
- Fifty percent of the funding served very low income areas;
- Ten percent of the recipients were owned or controlled by Native people; and
- Fifty-three percent of the recipients were owned or controlled by People of Color.

We expect these impacts to increase as HFFI is near awarding funds through a third round of funding for the TSGP.

In addition to the TSGP, we recently expanded the types of assistance that can be utilized through HFFI. Our National Fund Manager is currently finalizing two new programs that are expected to be offered in 2022. The first is a capacity-building grant program that will provide financial assistance to Partnerships to develop their own versions of HFFI in their local areas. Partnerships are regional, state, or local public-private partnerships that are organized to improve access to fresh, healthy foods and provide financial and technical assistance to eligible projects. Examples of activities we expect to fund include hiring a project coordinator, surveying local communities, providing one-on-one guidance to local retailers and food enterprises, assessing data to develop financial products like loans, grants, and tax credits, and identifying a local lender to set up a revolving fund.

The second program is a credit enhancement program. This program will again award grants to Partnerships via a qualified lender. These grants must be used for credit enhancement activities, such as establishing a revolving loan fund, implementing flexible credit requirements for lending eligible projects, and establishing a loan loss reserve.

Both of these new programs will continue to support priorities that were established through the TSGP. That is, priority will be given to projects that meet one or more of the following:

- Create or retain quality jobs for low-income residents in the community.
- Support regional food systems and locally-grown food;
- Are accessible by public transit;
- Involve women- or minority-owned businesses;
- Receive funding from other sources;
- Are located in or serve a rural area;
- Are located in very-low-income communities.

2018 Farm Bill authorized HFFI at \$125 million over 5 years and to date, the highest annual appropriation that the program has received is \$5 million.

Question Submitted by Hon. Angie Craig, a Representative in Congress from Minnesota

Question. Under Secretary Torres Small, thank you for considering the following question, which I was not able to ask during the hearing on March 8, 2022, but which I hope you may still be able to address.

We continue to see a decline in the health of rural communities. There is a tremendous need for investment in healthcare, childcare, fire and police stations as well as other essential community facilities across rural America. In my district, Compeer Farm Credit has joined with local banks, credit unions and USDA to finance these projects. However, the Farm Credit Administration process presents challenges for Farm Credit institutions to provide investment financing to rural hospitals, clinics, childcare and nursing care facilities.

Can you discuss programs or specific topics like rural health care where adequate access to financing has posed a barrier to rural areas? What can USDA do to work with FCA to create more opportunities for Farm Credit to work collaboratively with other lenders to finance these essential facilities?

Answer. USDA Rural Development (RD) serves an important role in providing direct access to capital for rural communities in every sector. In the healthcare sector, rural areas face challenges accessing care for many reasons including hospital and healthcare facility closures, workforce shortages, and limited telehealth opportunities due to lack of broadband. Over the last 10 years, RD has invested approximately 10% of its commercial dollars, almost \$9 billion, in the care section. RD also supports care services by supporting workforce development through planning, infrastructure and equipment financing, employer engagement, and education training. Additionally, RD's investment in rural healthcare projects and their associated infrastructure like broadband or public safety, can pave the way for further investment from other entities such as private lenders or local governments. As in the example described in the question, Farm Credit institutions can be a valuable partner for banks or credit unions as they seek to finance important rural health related projects. Farm Credit institutions can also serve as a holder for all or part of RD guaranteed loans for health-related projects under the OneRD Guaranteed Program. RD works with lenders across the country under the OneRD program and can connect interested parties or project proponents to approved lenders as requested.

A 2022 REVIEW OF THE FARM BILL
(THE ROLE OF USDA PROGRAMS IN ADDRESSING CLIMATE
CHANGE)

WEDNESDAY, MARCH 16, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, Costa, McGovern, Adams, Spanberger, Hayes, Delgado, Brown, Rush, Pingree, Kuster, Bustos, Plaskett, O'Halleran, Carbajal, Lawson, Craig, Axne, Schrier, Panetta, Bishop, Thompson, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Davis, Allen, Kelly, Bacon, Johnson, Baird, Jacobs, Balderson, Cloud, Mann, Feenstra, Miller, Moore, Cammack, Fischbach, and Letlow.

Staff present: Paul Babbitt, Lyron Blum-Evitts, Chu-Yuan Hwang, Kelcy Schanuman, Ashley Smith, Josh Maxwell, Patricia Straughn, Jennifer Tiller, and Dana Sandman.

OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA

The CHAIRMAN. The Committee will now come to order. I want to welcome everyone, and thank you for joining today's hearing entitled, *A 2022 Review of the Farm Bill: The Role of USDA Programs in Addressing Climate Change*. After brief opening remarks, Members will receive testimony from our very distinguished witnesses today, and then the hearing will be open for questions.

I want to welcome everyone to a very important hearing today. As many of you may recall, at our first hearing in my tenure as Chairman of this Committee, we discussed the role that farmers, ranchers, and foresters have in addressing climate change, as well as the impacts that climate change will have on them and their local communities in rural areas. Today's hearing will focus on how our 2018 Farm Bill supports voluntary USDA programs that can help improve the profitability of our agriculture operations, and mitigate climate change at the same time. This is very important.

And ladies and gentlemen, there is no industry, there is no entity that relies on their existence from climate and weather than agriculture. So, that is why we and agriculture must be at the front of the point of the spear when it comes to addressing climate change. And our rural communities are already facing inadequate

infrastructure and natural disasters. Just look at the fires in the western part of our nation that will grow in frequency and impact which further affects their ability to provide reliable, affordable, electric service and clean drinking water, things that other sections of the country take for granted. Our rural communities are in the crosshairs of this.

I am also for allowing farming to remain a viable way of life. That is important here. Family farming is the “hardbed” of our agriculture system, and I am pleased that we have a young farmer here today who can speak to her experience utilizing such programs through USDA.

Our aim is to also provide rural small businesses and towns with the tools to undertake efforts to address climate change impacts or increase their own energy efficiency, which helps their bottom lines and their budgets, and increase their farm’s profitability.

And as we are all seeing right now, increasing energy efficiency and producing more renewable energy right here at home should continue to be a goal to ensure that we do not have to rely on other countries for our own energy needs. We are blessed in our own country to have the necessary energy sources without depending on other nations.

Today’s panel of witnesses brings a wide breadth of experience from the role of the Federal Government in program development and funding, all the way to how farmers are utilizing and implementing these programs. I have said time and time again that we want agriculture to be at the tip of the spear. That is what we want to accomplish today. It is agriculture that must lead this nation’s efforts in climate change.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Welcome to another important hearing in our ongoing work to review the 2018 Farm Bill.

As many of you will recall, our first hearing in my tenure as Chairman of this Committee discussed the role that farmers, ranchers, and foresters have in addressing climate change, as well as the impacts climate change will have on them and their local communities.

Today’s hearing will focus on how the 2018 Farm Bill supports voluntary USDA programs that can help improve the profitability of our agriculture operations and mitigate climate change at the same time.

Agriculture occupies a unique position in this conversation with the potential to have a great impact through innovation on both reducing emissions and sequestering greenhouse gases.

Our rural communities are already facing inadequate infrastructure, and natural disasters that will grow in frequency and impact will further affect their ability to provide affordable, reliable electric service and clean drinking water.

In 2021, the annual global surface temperature was 1.51° Fahrenheit above the average in the last century. Additionally, 61 percent of the landmass of the contiguous 48 states experienced moderate or worse drought.

Make no mistake, climate change poses a threat to our rural communities, and to the production of food, fuel, and fiber. We must support our producers and rural communities in addressing this growing challenge.

I want to ensure that our farm bill programs support producers, particularly historically underserved and beginning farmers, who want to innovate and adopt practices that conserve resources and address climate change, while also allowing farming to remain a viable way of life. I am pleased that we have a young farmer here today who can speak to her experiences utilizing such programs through USDA.

Our aim is to also provide rural small businesses and towns with the tools to undertake efforts to address climate change impacts or increase their energy efficiency—which helps their bottom lines and budgets.

And as we're all seeing right now, increasing energy efficiency, and producing more renewable energy here at home should continue to be a goal to ensure that we don't have to rely on other countries for our energy needs.

Today's panel of witnesses brings a wide breadth of experience, from the role of the Federal Government in program development and funding, all the way to how farmers are utilizing and implementing those programs.

I have said time and time again that we want agriculture to be at the tip of the spear in our efforts to address climate change, and today's hearing is going to further sharpen that point as we continue our work on the farm bill.

I now recognize my friend and the Ranking Member of the Full Committee, 'GT' Thompson, for any opening remarks he may have.

The CHAIRMAN. With that, I will now turn it over to our Ranking Member for his opening statement.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, thank you, Chairman Scott, and thank you to our panelists for testifying today, it's greatly appreciated. I am excited about the panel that sits before us.

Recently, *The New York Times* wrote a series of stories and produced several videos denigrating rural Americans for providing this country with the safest, most abundant, and most affordable food supply in the history of the world. Let's set the record straight. U.S. agriculture accounts for less than ten percent of greenhouse gas emissions according to the Environmental Protection Agency. Over the last 70 years, U.S. agriculture has tripled food and fiber production, while usage of land, energy, fertilizer, and other inputs have remained steady.

Now, I believe farmers are climate champions, but there is more to be done. In fact, nearly a year ago, several of my Republican colleagues on this Committee introduced a suite of climate friendly and farmer-focused bills. So, if you have commonsense solutions, I am here to work with you. But I will not fundamentally upend our commodity, conservation, and crop insurance programs to appease Washington think tanks. I will reject complicating our programs and making climate the focus of every title of the upcoming farm bill reauthorization.

Now, we must ensure agriculture production remains viable in rural America to keep production from increasing in areas of the world with lower environmental standards, worse labor conditions, and fewer food safety considerations. And that is why a robust safety net is critical to keeping farms and production here, while lowering overall global greenhouse gas emissions.

Now, I would be remiss not to mention the tone deafness of this hearing, as our country and our farmers face enormous and immediate challenges, including higher food prices, record inflation, input costs, the tax on our energy independence, which, by the way, could lead us to a greater supply of domestic produced fertilizer, and dependable labor, which has been a theme long before COVID.

Now, these are the issues I hear about as I travel the country, and these are the issues we should be addressing. Our producers need action, not half-baked pilots and arbitrary mandates. Now, I

hope at the end of the day we recognize that our voluntary, locally-led, incentive-based conservation system is working as intended, and that we must not undermine its continued success in supporting the environment and producers.

Agriculture is science. It is technology. Let me back up and say American agriculture is science. It is technology. It is innovation. The demands of a 21st century farm economy and the economically viable climate solutions depend on tools and policies that continue to unleash and increase U.S. productivity.

Once again, thank you to our panelists that are here. I am looking forward to your testimony and the opportunity to be able to hear the exchange between our Members and yourselves.

Mr. Chairman, I yield back my time.

The CHAIRMAN. Thank you, Ranking Member.

The chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony, and to ensure that there is ample time for questions.

Our first witness today is the Honorable Charles Conner, who is the President and CEO of the National Council of Farmer Cooperatives, on behalf of the Food and Agriculture Climate Alliance.

Our next witness today is Ms. Kristin Weeks Duncanson, who is the owner and partner of Duncanson Growers, and she is testifying today on behalf of the AGree Economic and Environmental Risk Coalition.

Our third witness is our former Senate colleague, Senator Heidi Heitkamp from the great State of North Dakota. She is the Co-Chair of the Bipartisan Policy Center's Farm and Forest Carbon Solutions Task Force.

Our fourth witness today is Ms. Shakera Raygoza. Let me repeat that, please. Ms. Shakera Raygoza, who is an owner and operator of Terra Preta Farm, and she is testifying today on behalf of the National Young Farmers Coalition.

To introduce our fifth witness today, I am pleased now to yield to our colleague from California, Mr. Panetta.

Mr. PANETTA. Thank you, Mr. Chairman. It is my absolute honor to introduce Dr. Glenda Humiston as a witness in today's hearing on the role of USDA programs in addressing climate change.

Now, as a representative for the Central Coast of California, I am well aware not only of the benefits of our agriculture to our community and our country, but also the many, many challenges faced by that number one industry in the number one agricultural state in the nation, California. Unfortunately, as we will hear today, one of the growing challenges, especially in my state, is the everchanging landscape due to the climate crisis.

Fortunately, we have people like Dr. Humiston, who has dedicated her career to supporting agricultural sustainability by working to ensure that people thrive, our planet is healthy, and there is prosperity for all. As the current Vice President, Agriculture and Natural Resources for the University of California, Dr. Humiston advances those goals with innovative answers to local issues by leading a staff of over 1,500 people at 11 institutes and nine research and extension centers in California. She came into that position in 2015 with more than 25 years of experience working on public policy development and program implementation to support

sustainability. That includes her service as President Clinton's Deputy Under Secretary for Natural Resources and Environment at the USDA, and being appointed by President Obama as the California State Director at the USDA Rural Development Division.

Dr. Humiston is California born and Colorado raised where she grew up on a cattle ranch and was an active member of 4-H, so I have no doubt that her experience working with cows to U.S. Congress Members and for mechanization to the sequestration of carbon, and everything in between has allowed Dr. Humiston to be able to provide this Committee with insightful information for us to use as we provide solutions in the 2023 Farm Bill for the effects of climate change on agriculture.

Mr. Chairman, I thank you for this important hearing, and I thank you, Dr. Humiston, not just for your invaluable testimony today, but also for your interminable work to ensure a fruitful future for our agriculture not just in California, but all across our country.

I yield back, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Panetta.

And now, our sixth and final witness today is Dr. Joe Outlaw, who is the Co-Director of the Agriculture and Food Policy Center, Department of Agricultural Economics at Texas A&M University.

I am so pleased to have such a distinguished panel of witnesses before us today. Thank you so much for being with us. You will each have 5 minutes, and the timer should be visible to you and will count down to 0, at which time, your time will be expired.

And now, let us begin with you, Mr. Conner. Please begin when you are ready.

**STATEMENT OF HON. CHARLES F. CONNER, PRESIDENT AND
CHIEF EXECUTIVE OFFICER, NATIONAL
COUNCIL OF FARMER COOPERATIVES; CO-CHAIR, FOOD &
AGRICULTURE CLIMATE ALLIANCE, WASHINGTON, D.C.**

Mr. CONNER. Thank you, Chairman Scott.

Chairman Scott, Ranking Member Thompson, and Members of Committee, thank you for holding today's hearing and inviting me to testify on the role of the USDA programs in addressing climate change in the next farm bill. I am Chuck Conner, President and CEO of the National Council of Farmer Cooperatives, and a founding Co-Chair of the Food and Agriculture Climate Alliance, which I am testifying on behalf of today.

Formed 2 years ago, FACA breaks down the barriers that have existed between farm organizations and environmental groups on the issue of climate and gives producers a seat at the table in climate discussions. Today, with a steering committee of 24 groups and a broader membership of over 80 organizations, FACA truly represents the food, agriculture, and forestry value chain from field to fork.

As the Committee begins work on the next farm bill, we recommend that the process align with FACA's guiding principles. We believe that policies should be voluntary, and market- and incentive-based. That they should advance science-based solutions and outcomes, and that they should promote resiliency and help rural economies better adapt to climate change.

With these principles in mind, FACA has developed a robust set of policy recommendations that should be considered while writing the next farm bill. I would like to highlight just a few key examples. For a more comprehensive list, I refer the Committee Members to my written testimony.

First, we believe that USDA's Natural Resources Conservation Service must be bolstered to effectively meet and address climate change. FACA recommends a 10 to 20 percent increase in funding for NRCS programs to be dedicated for new and existing greenhouse gas reductions, adaptation, and soil health efforts. We also support setting aside one percent of total mandatory funding from the new baseline for technical assistance to ensure producers receive critical on the ground support.

Second, FACA recognizes that climate-smart agriculture requires reliable broadband. Without such a connection, many of the tools required to implement and measure best practices are simply out of reach of producers. We applaud Congress's efforts on broadband thus far; however, the need is great across the countryside, and many, many gaps remain. FACA hopes that this continues to be an area of focus in the farm bill process.

Third, FACA has several recommendations on energy efficiency that could be included in the next farm bill. For example, the Rural Energy for America Program, or REAP, helps producers and rural small businesses install renewable energy systems and improve energy efficiency. Since this program is oversubscribed, we urge the Committee to increase funding to meet demand. In addition, expanding REAP's eligible entities to include farmer co-ops would facilitate wider adoption of renewable energy technology, such as anaerobic digesters.

FACA also supports programs already underway at USDA to address climate change. I would like to give special mention to USDA's newly launched Partnerships for Climate-Smart Commodities. FACA is especially pleased to see the program structured consistent with our recommendations for climate pilot projects.

FACA's original policy recommendations were developed in 2020. They were not written with a farm bill in mind. In addition, the membership of FACA has grown considerably, both in numbers and diversity since that time. Because of this, FACA will soon start a process to update our own priorities for the upcoming farm bill to build upon the scope of our original recommendations. We look forward to working very, very closely with this Committee in this process.

Finally, as the farm bill process begins, I believe it is critical that any efforts to address climate must provide access for all producers and rural communities, and address the historic inequalities that have been seen in many Federal farm programs.

In conclusion, FACA believes that the next farm bill must be written to address climate policy. Responding to consumer demands, private-sector commitments to reduce emissions and grow green energy will only continue in the years ahead. The potential for added costs to be pushed down to producers makes it imperative that the next farm bill provide the tools to help producers remain profitable. With the right public policy, what could be an

unsustainable cost we believe can be turned into something that will boost farm income and help rural communities.

Mr. Chairman, again, thank you for holding this hearing today, and I look forward to responding to questions at the appropriate time.

[The prepared statement of Mr. Conner follows:]

PREPARED STATEMENT OF HON. CHARLES F. CONNER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NATIONAL COUNCIL OF FARMER COOPERATIVES; CO-CHAIR, FOOD & AGRICULTURE CLIMATE ALLIANCE, WASHINGTON, D.C.

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for holding today's hearing and inviting me to testify on the role of U.S. Department of Agriculture (USDA) programs in addressing climate change in the next farm bill. I am Chuck Conner, President and CEO of the National Council of Farmer Cooperatives (NCFC), and a founding co-chair of the Food and Agriculture Climate Alliance (FACA), which I am testifying on behalf of today.

The nation's food, agriculture, and forestry industries are uniquely positioned and ready to contribute to our country's broader effort of reducing industry impacts on the climate. Farmer-owned cooperatives, which represent a wide spectrum of agricultural production, are already leaning into voluntary climate initiatives that are pro-producer and pro-environment. We are actively seeking ways to engage while ensuring producers can generate revenue from adopting climate-smart practices rather than have costs pushed down on them. That is why NCFC has come together with an array of industry groups that may not always reach consensus when it comes to agriculture policy but agree that we must have a seat at the table to inform the development of policies to help producers do their part.

As we examine the many ways our industry can positively impact a changing climate, it is important to keep in mind that one size does not fit all when it comes to public policies and effective practices on the ground. What works for a dairy producer in the Northeast likely will not work for grain farmers in the Midwest, specialty crop growers out West or forest owners in the South. Climate policy as it relates to agriculture and forestry production must be voluntary, incentive-based and enable producers to remain profitable. The next farm bill provides the opportunity for this Committee to climatize existing programs to generate revenue for farmers while mitigating climate risk.

About FACA

Over 2 years ago, NCFC, along with the American Farm Bureau Federation, Environmental Defense Fund and National Farmers Union, came together to collaborate and establish a set of principles for developing climate policy priorities that the food and agriculture sector could broadly support. These principles include supporting voluntary, market- and incentive-based policies; advancing science-based outcomes; and promoting resiliency and helping rural economies better adapt to climate change. These policies were created with an overarching goal to do no harm, meaning FACA policies would be thoughtfully crafted, informed by broader potential consequences and tradeoffs, and account for inequities.

FACA is committed to working with the Federal Government, and within our own memberships and networks, to support current and future farmers, ranchers, and forest owners of all genders, races, creeds, religions, sexual orientations, and backgrounds. When it comes to implementing farm bill and other agency programs, USDA should commit to having a broad, diverse and inclusive stakeholder group actively participate in the policy decision making process. USDA programs and incentives should be structured inclusively and designed to equitably distribute benefits and burdens of climate and agriculture policies.

Paramount to success, the Alliance also has an underlying focus on the critical need for broadband access in rural America. Without a strong, reliable internet connection, farmers cannot obtain current information, utilize precision agricultural practices, record, track and analyze real-time data or meaningfully document progress on their farms. These capabilities are necessary to validate, verify and account for the outcomes of climate-smart practices.

With this foundation, FACA welcomed four additional founding members including, The Nature Conservancy, National Alliance of Forest Owners, National Association of State Departments of Agriculture, and FMI—The Food Industry Association. The group went on to develop more than 40 policy recommendations in six areas of focus: soil health; livestock and dairy; forests and wood products; energy; re-

search; and food loss, food waste and consumer engagement. There are several proposals highlighted below and included within FACA's recommendations that, if adopted, would provide opportunities for the food and agriculture sector to build stronger partnerships around climate-smart production strategies.

Since the release of FACA's foundational policy recommendations in November 2020, the Alliance has worked diligently to grow support for the Alliance. Today, FACA consists of 24 steering committee members and a growing list of more than 80 supporting state and national NGOs and trade associations that guide our efforts to advocate and implement our policy priorities.

A full list of FACA's policy recommendations and supporting members can be found at www.agclimatealliance.com.

FACA's Ongoing Outreach

Since November 2020, our outreach and collaborative efforts have taken a whole of government approach. FACA representatives have met with various Administration officials ranging from the U.S. Department of Agriculture's (USDA) Secretary of Agriculture Tom Vilsack, the Undersecretary for Farm Production and Conservation (FPAC), and the senior climate teams from the Office of the Secretary (OSEC), the Natural Resources Conservation Service (NRCS), and the Office of the Chief Economist (OCE), as well as the Senior Advisor for Agriculture at the Environmental Protection Agency (EPA), and the Program Associate Director (PAD) for Climate, Energy, Environment and Science at Office of Management and Budget (OMB). We appreciate this Administration's willingness to work with our alliance and take a voluntary, market- and incentive-based approach to new initiatives that have been introduced to promote climate-smart agriculture and forestry practices.

USDA has already taken innovative approaches toward supporting producers in adopting and maintaining climate-smart practices. For example, allowing feed additives to be eligible for Conservation Innovation Grants (CIG) to help producers and their partners better understand the impact various feed additives have on an animal's overall nutrition and on the environment. FACA identifies feed additives as a promising tool to address enteric emissions in ruminant livestock to reduce methane emissions resulting from enteric fermentation. However, regulatory roadblocks have added years onto the process of making these additives widely available to producers. This lag in approval is also impacting research and development investments in emissions reducing feed additives in the United States. Streamlining the approval process and facilitating more research and development in this field is just one important way USDA can help producers contribute to reduced GHG emissions and climate resiliency on the farm.

Earlier this year, NRCS launched a new Cover Crop Initiative through the Environmental Quality Incentives Program (EQIP) to deliver \$38 million to 11 states to help agricultural producers plant cover crops. Additionally, USDA's Risk Management Agency (RMA) introduced the Pandemic Cover Crop Program (PCCP) to help reduce producers' crop insurance premiums while maintaining cover crop systems.

Members of FACA weighed-in multiple times with Administration officials during the development of USDA's newly launched Partnerships for Climate-Smart Commodities (PCSC), urging the Department to first take an analytical approach through pilot project funding to better understand barriers to adopting climate-smart practices and reliable methods for measurement and verification. FACA strongly supports USDA's newly launched PCSC program and we are pleased to see the program structured in a manner consistent with FACA's recommendations. USDA's Notice of Funding Opportunity will allow participants to form partnerships to help producers overcome barriers and be competitive in private markets.

Members of FACA's steering committee also met with countless Members of Congress and their staff on both sides of the aisle to offer briefings on the group's principles and policy recommendations and discuss specific priorities such as appropriations requests and support for legislation. For example, FACA supports the *Agriculture Environmental Stewardship Act*, a bill that provides an important tool to incentivize investments in climate-smart technologies such as nutrient recovery and biogas systems that have multiple benefits to the environment and rural communities.

Additionally, the *Growing Climate Solutions Act*, introduced in the House by Representatives Abigail Spanberger (D-VA) and Don Bacon (R-NE) and supported by a growing bipartisan list of more than 70 cosponsors, would serve as a foundation for setting standards and certification criteria to help foster the growth of private-sector carbon markets. The companion bill was led by Senators Debbie Stabenow (D-MI) and Mike Braun (R-IN) and passed by the Senate last year with an unprecedented show of bipartisan support in a vote of 92-8. If farmers are to be part of solving climate challenges, they need to rely on proven science, accurate data, and

standardization to help get there—this bill does not offer the entire solution, but an important step in that direction. We appreciate Members of this Committee engaging with each other on this momentous piece of legislation.

These are just two examples of legislation that embody FACA's core principles of supporting bipartisan, voluntary, and incentive-based policies that promote resilience to help rural economies better adapt to climate change.

FACA Recommendations for USDA

Although FACA has not yet fully outlined a set of farm bill priorities, there are several areas within FACA's original policy recommendations worth examining as you prepare for the next farm bill.

For example, FACA encourages USDA to make a stronger commitment to agricultural and forestry research to help provide farmers, ranchers, and forest owners with the tools they need to adapt, mitigate, and become more resilient to climate change. These recommendations include directing USDA's ARS to develop protocols for climate research trials to establish consistent standards for measurement and verification and provide more in GHG emission outcomes. NRCS also requires adequate funding to expand the number of soil sampling reference sites and formally codify USDA's Climate Hubs. In order for farmers to play an active role to meaningfully move the needle on climate mitigation, producers will first require reliable data that is field and practice-generated over time.

Additionally, climate advantageous inputs will continue to be an important tool for producers to enable conservation practices like tillage management and use of cover crops. FACA supports continued innovation and maximizing climate benefits through a strong, science-based risk/benefit regulatory system. Access to safe and effective risk management tools is critical for growers to participate in these conservation practices and meet climate and sustainability goals.

FACA highlights in its policy priorities how improved pasture and grazing management has the potential to play a substantial role in terrestrial carbon sequestration. More needs to be done to develop protocols and to deploy prescribed pasture and grazing practices to reduce emissions. NRCS should identify regions and practices with the greatest potential for carbon sequestration and methane emissions reduction, and should support research, development, and widespread use of decision-support tools for climate and land stewardship outcomes.

There are several areas within FACA's recommendations related to energy efficiency that could be addressed by USDA. For example, the Rural Energy for America Program (REAP) is an important funding source for producers and rural small businesses needing assistance to install renewable energy systems or make energy efficiency improvements on their operations. However, REAP is an oversubscribed program and in critical need of additional funding to meet demand. Expanding REAP's eligible entities to include farmer co-ops would also facilitate wider adoption of renewable energy technology such as anaerobic digesters which are highly effective tools in reducing, destroying and converting methane and nitrous oxide emissions from livestock manure and other waste. FACA also recommends USDA conduct a study of on-farm energy initiatives to examine the status of on-farm efficiency adoption, rural renewable energy production and biofuels deployment. The study should also identify barriers and opportunities to increase on-farm energy initiatives and scale renewable fuels production.

In recent years, this Committee has held hearings on food waste. As you may recall, food waste accounts for eight percent of all global greenhouse gas emissions and is an important factor when examining how the food and agriculture sector can reduce its climate impact. More can be done to provide education through USDA's Food and Nutrition Services initiative, Team Nutrition, to highlight food waste prevention and reduction in information geared toward teachers and students. The National School Lunch Program operates in nearly 100,000 public and nonprofit schools and residential childcare institutions, providing lunches to nearly 30 million children every day. Opportunities to educate through Team Nutrition more fully could result in behavioral changes that lead to less food waste. Furthermore, more information about preventing food waste in USDA's Foods in Schools product information sheets is a low-cost way to ensure participants in USDA nutrition programs receive storage information that could prevent food loss and waste and increase the effectiveness of these nutrition programs. We have been successful in achieving this priority through the FY22 appropriations process but look forward to identifying other meaningful ways for USDA to partner with FDA and EPA on food loss mitigation and food waste strategies to prevent wasted inputs, energy, and methane emissions in landfills.

These are just a handful of FACA recommendations directed toward USDA that could be considered as part of the upcoming farm bill deliberations.

2023 Farm Bill Outlook

Members of FACA will begin in earnest later this month to examine and develop priorities for the upcoming 2023 Farm Bill and will likely start by exploring ways to improve and/or expand current programs. With 16 new members joining the steering committee since FACA's original policy priorities were released in 2020, it is reasonable to assume that the scope of the Alliance's policy priorities for the farm bill will expand. However, FACA's founding principles and original policy recommendations will guide any new policy priorities agreed upon by the Alliance and those priorities will continue to be adopted through the process of unanimous consent.

Regardless of the specific farm bill priorities FACA ultimately agrees to, we believe that the next farm bill must address climate policy as it impacts American agriculture and forestry. Private sector commitments to reduce greenhouse gas emissions and grow green supply chains will continue to increase in the years ahead. The potential for added costs to be pushed down to producers makes it imperative that the next farm bill provide the necessary tools to help producers remain profitable for years to come. With the right public policy, what could be an unsustainable cost can be turned into something that will boost farm income and rural economies. This is even more crucial given the rising costs of inputs caused by inflation and growing geopolitical uncertainty. Necessary for success and wide-spread adoption will be support from both sides of the aisle.

As the Administration and Congress take these steps, FACA believes it is critical that these programs provide equitable access for all producers and rural communities and address the historic inequalities that we have seen in many Federal farm programs. Further, as USDA begins efforts to receive input from producers and landowners on their work to reduce climate impacts, the Department should be proactive in promoting a diversity of representation on advisory committees and similar bodies to ensure programs work for all of agriculture.

The timing is right for all industries, including agriculture, to come together and find solutions that will sustain production agriculture and forestry practices in our country, while preserving the ability for producers to be profitable and to pass along their way of life for generations to come. State Departments of Agriculture, environmental NGOs, agricultural lenders, and producer groups are well-positioned to be trusted resources and partners for farmers, ranchers, and forest owners in what is often referred to as the "Wild West" of carbon markets and ecosystem services. We believe Congress and the USDA have important roles to play to provide a foundation for private market participation and to support the viability of our nation's agriculture and forestry producers through voluntary, market- and incentive-based policies and the passage of the 2023 Farm Bill.

FACA looks forward to working with Members of this Committee and other policy makers as we finalize our priorities for the 2023 Farm Bill and work together to support America's farmers, ranchers, and forest owners in a future focused on climate.

About the National Council of Farmer Cooperatives

Since 1929, NCFC has been the voice of America's farmer cooperatives. NCFC values farmer ownership and control in the production and distribution chain, the economic viability of farmers and the businesses they own, and vibrant rural communities. We have an extremely diverse membership, which we view as one of our sources of strength—our members span the country, supply nearly every agricultural input imaginable, provide credit and related financial services (including export financing), and market a wide range of commodities and value-added products.

American agriculture is a modern-day success story. America's farmers produce the world's safest, most abundant food supply for consumers at prices far lower than the world average. Cooperatives differ from other businesses because they are member-owned and are operated for the shared benefit of their members.

Farmer cooperatives enhance competition in the agricultural marketplace by acting as bargaining agents for their members' products, providing market intelligence and pricing information, providing competitively priced farming supplies and vertically integrating their members' production and processing. There are nearly 2,000 farmer cooperatives across the U.S. and earnings from their activities (known as patronage) are returned to their farmer-members, helping improve their members' income from the marketplace.

The CHAIRMAN. And thank you, Mr. Conner, for your excellent remarks and testimony.

And now, Ms. Duncanson, please begin when you are ready.

STATEMENT OF KRISTIN WEEKS DUNCANSON, OWNER AND PARTNER, DUNCANSON GROWERS; MEMBER, AGREE ECONOMIC AND ENVIRONMENTAL RISK COALITION, MAPLETON, MN

Ms. DUNCANSON. Thank you very much. Good morning to everyone. I am Kristin Weeks Duncanson, representing the AGree Coalition. I would like to thank Chairman Scott, Ranking Member Thompson, and all the Members of the Committee for an opportunity to testify today. As part of my testimony, I will also be submitting some documents from the coalition with my official statement.

My husband, Pat, and I own Highland Family Farms in Mapleton, Minnesota. We grow soybeans, corn, small grains, and raise hogs. We practice conservation on our acres. We are transitioning some acres to organic production, and are even considering how we can grow saplings on some marginal lands to help supply reforestation efforts in the northern part of our state.

I am also a member of the AGree Coalition, a group that builds consensus around ideas that will make agriculture more resilient, profitable, and sustainable. As a businessowner and farmer, better information is the foundation of how I manage risk from disruptions to our operation due to pandemics, wars, or climate change.

This Committee has repeatedly asked how do we convince farmers to adopt conservation practices? The answer is simple. It is better data—data that is up-to-date, accessible, and can be analyzed to show the costs and benefits of conservation practices. USDA and private-sector companies both collect an enormous amount of data from farmers. USDA has the opportunity to use our data to advance widespread adoption of conservation. AGree's farmer-centric approach is grounded in the understanding that farmers must see how conservation practices benefit farm profitability in order to bring adoption up to scale.

USDA must link and analyze data across mission areas and make this data available to qualified, trusted, academic institutions and researchers so that they can show that it works. It is easy to get bogged down in the concerns about data privacy or who gets access. I answered those criticisms by pointing out that USDA for years has shared confidential data with land-grant universities under strict guidelines. Processes to protect privacy, including requirements that all the published reports only use aggregated non-identifiable data already exist. Researchers who break a contract and reveal personal data face jail time.

I recently jotted down all the data that we report to USDA for farm programs, conservation programs, and for crop insurance, plus the data I report to my insurance agent and the data report to my lender, and to the Minnesota Pollution Control Agency. All that data or most of it is integrated on our John Deere platform. It is helpful to us, certainly, and it is also helpful to them. They are going to use that data to sell me more products and services.

However, not all farmers participate in this private-sector data revolution. It is the role of USDA and Congress to make sure that the new insights coming from analyzing big data are available to all farmers.

One example of how USDA could better use the data is to improve the connections between conservation and crop insurance. Cover crops, crop rotation, and rotational grazing make crop and rangeland more resilient to drought, bring more water holding capacity from deluges we are increasingly seeing, and save money for farmers through reduced pesticides.

Yet these practices are peripheral to crop insurance and are recognized after many years of adoption, as we change our APH. This can be 10, 20, or 30 years, depending upon how many crops you are growing.

You see the problem. Farmers use conservation and they become less risky and more resilient. That probability of loss decreases as their conservation increases, but that is only recognized through crop insurance as an APH that takes decades to establish.

Let me be abundantly clear. We support the Federal Crop Insurance Program and the reliability it offers to farmers. We also support that crop insurance could recognize or perhaps even incentivize farmers to adopt conservation to reduce risk to an uncertain future. Agriculture is going to change dramatically over the next span of the next farm bill. Let's plan for that future.

Thank you again for this opportunity. I only wish I could be there in person, but it is a beautiful day here in Minnesota, and we are getting ready to plant.

[The prepared statement of Ms. Duncanson follows:]

PREPARED STATEMENT OF KRISTIN WEEKS DUNCANSON, OWNER AND PARTNER, DUNCANSON GROWERS; MEMBER, AGREE ECONOMIC AND ENVIRONMENTAL RISK COALITION, MAPLETON, MN

Framing the Conversation

Good morning. I am Kristin Weeks Duncanson, representing the AGree Coalition. I'd like to thank Chairman Scott, Ranking Member Thompson, and all the Members of this Committee for the opportunity to testify today.

As part of my statement, I will be submitting several documents from the work of the AGree Coalition for the record (see *Appendix*).

I was 19 years old and an intern for a Senator from Minnesota when I worked on my first farm bill. Since then, I have been engaged in farm bills as a Senate staffer, commodity group leader, but most importantly, as a farmer from southern Minnesota.

My husband Pat and I own Highland Family Farms in Mapleton, Minnesota. We grow soybeans, corn, small grains, and raise hogs. On our farm, we are trying to become more resilient, and we are always planning for the future. Practicing conservation is how we manage the increasing risks to our farm from extreme weather.

We practice conservation on all our acres, we are transitioning some acres to organic production, and we are thinking about how we can grow saplings on marginal lands to supply reforestation efforts. We work towards economic, environmental, and community sustainability with every decision we make in our operation.

I am also a member of the AGree Coalition, a group housed at Meridian Institute, that builds consensus around ideas that will make agriculture more resilient, profitable, and sustainable. Today's hearing is timely as the Committee turns to how the next farm bill will help farmers—and our whole food system—reduce risk and address a changing climate.

As a business owner and farmer, better information is the foundation of how I manage risks from disruptions to my operation due to pandemics, wars, or climate change. I am always thinking about how I can get more information about the things I can't control, but that affect my farm.

This Committee has repeatedly asked, "How do we convince more farmers to adopt conservation practices?" The simple answer is better data. Data that is up to date, accessible, and can be analyzed to show the costs and benefits of conservation practices.

The AGree Coalition sees agricultural data as central to programs throughout the farm bill. USDA and private-sector companies both collect an enormous amount of data from farmers. *USDA has an opportunity to use our data to advance widespread adoption of conservation. AGree's farmer-centric approach is grounded in the understanding that farmers must see how conservation practices benefit farm profitability in order to bring adoption to scale.*

As programs are developed by both government and the private-sector to incentivize new adoption of climate-smart practices, many farmers and policymakers are also asking how the contributions of “early adopters,” the early innovators of these practices, will be recognized and rewarded. The most sustainable way to both maintain and expand climate-smart agricultural practices is to build the business case for conservation adoption through new data collection and research by USDA. Building the evidence base for the connection between conservation practices and risk can help us embed incentives for the adoption and maintenance of climate-smart agricultural practices throughout markets, finance systems, regulatory processes, and crop insurance programs.

USDA must link and analyze data across mission areas; create incentives for farmers to submit additional data they want to report about their farming practices; and make this data available to qualified, trusted academic institutions and researchers so they can show us what works.

It's easy to get bogged down in concerns about data privacy or who gets access. I answer those criticisms by pointing out that USDA has, for years, shared confidential data with land-grant universities. Processes to protect privacy—including requirements that all published reports use only aggregated, non-identifiable data—already exist. Researchers who break a contract and reveal personal data face jail time.

When you ask farmers, “Should your data be combined with other farm data to help you understand what conservation practices will work on your farm, helping you to reduce your risk and become more profitable?”, the answer is yes. Most farmers are just fine with sharing most data that they already are reporting. But USDA is woefully behind when it comes to managing data or having the ability to analyze what they do collect from farmers about the outcomes of conservation.

I recently jotted down all the data I report to USDA—for the farm program, for conservation programs, for crop insurance, plus data I report to my crop insurance agent, the data I report to my lender and to the Minnesota Pollution Control Agency. All that data is already integrated on the John Deere platform. It's helpful to me, certainly. And it's also helpful to them. They're going to use it to sell me more stuff.

However, not all farmers are participating in this private-sector data revolution. It is the role of USDA and Congress to make sure that the new insights coming from analyzing big data are available to all kinds of farmers.

The promise of big data is only fulfilled if we use it for the benefit of farmers. It does none of us any good to be siloed at USDA like it is now, with the private-sector investing and marketing for only a few crops, to only the most tech savvy farmers they select.

One example of how USDA can use data to improve tools for farmers is by using data to improve the connections between conservation and Federal crop insurance. Cover crops, no-till, crop rotations, rotational grazing, and other conservation practices make crop and rangeland more resilient to drought, bring more water-holding capacity for the deluges we increasingly see, and save farmers money through reduced pesticide applications. Yet these practices are peripheral to the crop insurance program, and only recognized many years after adoption when a 10 year APH (Actual Production History, the 10 year average of a farmer's yields) fully incorporates that less-risky system. Or after 20 years, for a farmer growing two crops. Or 30, for the farmers growing three.

You see the problem: farmers that use conservation become less risky and more resilient. Their probability of loss *decreases*. But that is only recognized in crop insurance through an APH that takes *decades* to establish. Hence, many farmers are talking about improvements.

Let me be clear—we support the Federal Crop Insurance Program and the reliability it offers to farmers. We also support that crop insurance should recognize and even incentivize farmers to adopt conservation to reduce risk and resilience on the way to an uncertain future.

Agriculture is going to change dramatically over the span of the next farm bill. By the time we get to 2028—when the bill you are about to write will expire—this country and farmers like me who grow our food are going to be different. Those who purchase our products will be different. Let's plan for the future, rather than ad-

addressing the needs of the past. Thank you for this chance to share my vision for the next 5 years.

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The Case for Next Generation Crop Insurance

June 2021

Foreword

Federal crop insurance is a key risk management strategy for the majority of commodity crop producers. Since 2015, the AGree Economic and Environmental Risk (E2) Coalition has sought to better understand the risk reduction benefits of agricultural conservation practices and how these benefits are accounted for in the Federal Crop Insurance Program (FCIP). This paper summarizes important insights from the Coalition's work on Federal crop insurance and conservation.

In sharing what we have learned, AGree hopes to inform current policy debates in a way that drives broader adoption of agricultural conservation practices and strengthens the FCIP by improving understanding of how conservation practices reduce risk and improve farmers' economic outcomes, enhance environmental performance, sequester carbon and support working lands resilience.

Farmers' investments in practices that improve soil health have the potential to increase resilience to severe weather events, reduce environmental impacts, and increase productivity over time. Yet, while conservation practices have the potential to impact both producer profitability and the environment, more work must be done to fully understand how conservation practices reduce risk and how to best reflect those risk-reduction benefits in crop insurance and conservation policy, data innovation efforts and rating models.

AGree's work is intended to support and inform the work of the Risk Management Agency—as well as other USDA agencies such as the Farm Services Administration (FSA) and Natural Resources Conservation Service (NRCS)—to promote climate-smart agriculture through Federal crop insurance and other programs.

We hope you find this paper to be a useful resource.



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Executive Summary

Federal crop insurance, a major component of the Federal farm “safety net,” is a central component of risk management for the vast majority of commodity crop producers. Since 2015, the *AGree Economic and Environmental Risk Coalition*¹ (AGree E2 Coalition) has sought to better understand the risk reduction benefits of agricultural conservation practices and how these benefits are accounted for in the Federal Crop Insurance Program (FCIP). The AGree E2 Coalition grew from the foundational work of AGree, an initiative designed to elevate food and agriculture

¹<https://foodandagpolicy.org/>.

as a national priority. We are housed within *Meridian Institute*,² a mission-driven nonprofit consultancy that builds understanding, guides collaboration and drives action to address our world's complex challenges.

This paper summarizes important takeaways to date from the E2 Coalition's work on Federal crop insurance and conservation. In sharing what we have learned, AGree hopes to inform current policy debates in a way that drives broader adoption of agricultural conservation practices and strengthens the FCIP by better understanding how conservation practices reduce risk and improve farmers' economic outcomes, enhance environmental performance, sequester carbon, and support working lands resilience.

The agriculture sector is uniquely impacted by weather. Building landscape resilience is vital to protecting agricultural yield and farmers' livelihoods today and into the future. At the same time, agriculture is a significant contributor to greenhouse gas emissions, while having the capacity to serve as a carbon sink.

A growing body of evidence—including work supported by AGree—shows that farmers who use conservation practices, such as cover cropping, conservation tillage, diversified crop rotation, and management-intensive rotational grazing, reduce yield risk, which, in turn, could result in fewer insurance claims. Research shows that conservation practices can improve water quality and soil health by increasing soil organic matter, and, relatedly, healthier soils reduce risk, especially in very dry or wet conditions, as well as sequester carbon.

The Risk Management Agency (RMA), an agency within the United States Department of Agriculture (USDA), implements the FCIP and has begun to look at how conservation practice implementation can reduce risk. AGree's work is intended to support and inform the work the Agency has begun to understand the effects of conservation practice adoption on yield variability, which is a measure of risk used by RMA. This effort will require using robust data analysis to determine the impact of weather, conservation practices, soil type and other variables on yield risk. Further, policy alignment between agencies—including RMA, Farm Services Administration (FSA), and Natural Resources Conservation Service (NRCS)—that serve producers is needed to ensure that program design and implementation work together to facilitate climate-smart agriculture while reducing administrative barriers and challenges for farmers seeking to adopt and expand the use of agricultural conservation practices.

Through our work over the last several years, we have identified the following key areas where policy improvements can support RMA and drive next generation crop insurance for the benefit of farmers, the environment and taxpayers now and into the future.

- **Data Innovation:** Modernize data collection, interoperability, storage and sharing while protecting producer privacy.
- **Crop Insurance and Conservation Policy:** Improve crop insurance and conservation policies so that they work better for farmers and reduce risk while adopting new policies that encourage adoption of conservation practices that reduce risk.
- **FCIP Rating Model:** Enable research that helps strengthen the FCIP risk rating model by addressing knowledge gaps, and utilize data to assess and improve on-the-ground outcomes.

Introduction

Federal crop insurance is a key risk management strategy for the majority of commodity crop producers. The three largest commodity crops—corn, soy and wheat—are overwhelmingly insured under the Federal Crop Insurance Program (FCIP), with over 90% of corn and soy acres and over 85% wheat acres enrolled (*Congressional Research Service*,³ 2021). These insured acres equate to an enormous landmass of over 195 million acres (Farm Bureau, 2018). Crop insurance is one of the largest expenditures under the farm bill, representing about 37% of the total farm portion of the farm bill¹ or around \$10 billion per year (*Congressional Budget Office*,⁴ 2018).

Every year, farmers have weather-related losses, but in some years, such as in 2012 or 2019, years that saw substantial drought and flooding respectively, the safety net is relied on expansively, with billions paid in insurance claims (Rippey, 2015;

²<https://merid.org/>.

³<https://fas.org/sgp/crs/misc/R46686.pdf>.

¹The "farm" (or producer-focused) portion of the farm bill excludes the Supplemental Nutrition and Assistance Program.

⁴<https://www.cbo.gov/publication/54880>.

Schnepf,⁵ 2020). For example, 2019 saw record “prevent plant indemnities” with \$4.2 billion paid to farmers who were not able to plant because of very wet conditions (Schnepf, 2020). Given the high enrollment and significant Federal subsidization,^[iii] crop insurance has the potential to drive broader adoption of agricultural conservation practices that reduce risk and provide a host of economic and ecological co-benefits including, for example, sequestering carbon and improving water quality.

Reducing agricultural risk and building landscape resilience are essential as the impact of climate change accelerates (SARE,⁶ 2018). As the atmosphere warms, severe weather events are increasing in frequency and climate changes are occurring. The Midwest, where the majority of commodity crops are produced, is generally becoming wetter in the spring, while the summers are becoming drier and hotter, as is much of the Western Plains. The *Fourth National Climate Assessment*⁷ (2018) has summarized climate-related challenges in the Midwest as follows:

Increases in warm-season absolute humidity and precipitation have eroded soils, created favorable conditions for pests and pathogens and degraded the quality of stored grain. Projected changes in precipitation, coupled with a rise in extreme temperatures before mid-century, will reduce Midwest agricultural productivity to 1980 levels without major technological advances.

Mounting scientific evidence shows that conservation practice implementation reduces crop yield risk during times of drought, heavy precipitation and flooding. Additionally, conservation practices provide multiple environmental benefits, including improved water quality and soil moisture management, carbon sequestration, and habitat (U.S. Farmers and Ranchers Alliance Ecosystem Services Science Advisory Council,⁸ 2019). These co-benefits may also create new funding streams for farmers as carbon and water quality markets come online.

To help inform work under way by U.S. Department of Agriculture (USDA), as well as, broader policy efforts to improve farm policy, this paper provides AGree’s synthesis on the following issues:

- *The risk-reducing effect of conservation practices;*
- *Barriers to conservation practice adoption by producers in the FCIP; and*
- *Critical need for improved agriculture data collection, utilization and policy alignment among USDA agencies that serve farmers.*

The Risk Management Case for Conservation Practices

A growing body of research shows that conservation practices are an effective risk reduction strategy. As noted above, the 2019 planting spring season was the wettest on record in many areas (USDA,⁹ 2019). As a result, farmers submitted over \$4 billion in insurance claims for nearly 20 million acres where wet conditions prevented farmers from planting a cash crop within the time required by insurance, a circumstance known as prevent plant or prevented planting (Congressional Research Service,¹⁰ 2020).

A recent National Cover Crop Survey (Survey) found that 78.6% of the respondents reported wet planting conditions that delayed planting, but that 78% of farmers who planted cover crops did not have prevent plant claims (2019–2020 National Cover Crop Survey¹¹). In addition, the Survey found promising results for “planting green,” the practice of seeding a cash crop directly into a living cover crop and allowing both to grow for a period. Despite saturating spring rains, 54.3% of respondents reported they were able to plant cash crops sooner in green-planted fields than in fields where cover crops were terminated early or were not present (2019–2020 National Cover Crop Survey). Many producers also reported other benefits, with 70.5%

⁵ https://www.everycrsreport.com/files/20200115_R46180_8949d2d76b218af49578ca613a2b148cf8f06ddc.pdf.

^[iii] The average Federal premium subsidy between 2008–2017 was 62% (Congressional Research Service, 2018) (<https://fas.org/sgp/crs/misc/IF10980.pdf>).

⁶ <https://www.sare.org/wp-content/uploads/Cultivating-Climate-Resilience-on-Farms-and-Ranches.pdf>.

⁷ <https://nca2018.globalchange.gov/chapter/21/>.

⁸ <https://www.aspeninstitute.org/wp-content/uploads/2019/05/Harvest-Science-Paper-FINAL.pdf>.

⁹ <https://www.usda.gov/media/blog/2019/06/14/nations-wettest-12-month-period-record-slows-down-2019-planting-season>.

¹⁰ https://www.everycrsreport.com/files/20200115_R46180_8949d2d76b218af49578ca613a2b148cf8f06ddc.pdf.

¹¹ <https://www.sare.org/wp-content/uploads/2019-2020-National-Cover-Crop-Survey.pdf>.

respondents reporting that the planting green improved weed control when compared with their other fields (2019–2020 National Cover Crop Survey).

The Conservation and Crop Insurance Research Pilot,¹² a collaboration between AGrEE, researchers at the University of Illinois, and USDA, will shed further light on the impact of cover crops on risk management during wet years. Under the pilot project, researchers are looking at USDA data and other information for six states—Indiana, Illinois, Iowa, Missouri, Minnesota, and South Dakota—to better understand how the use of cover crops and no-till affected corn and soybean planting dates in the extremely wet spring of 2019, whether planting occurred at all (prevent plant crop insurance claim declared), and what impact the conservation practice(s) had on 2019 yields. Results of this data analysis effort should be available by early 2022.

At the other end of the weather spectrum, soil organic material (SOM), of which soil organic carbon is the main component (Lal, 2016), has been found to protect yields during drought conditions. Higher levels of SOM improves water retention, thereby mitigating against the impact of drought. Further, SOM is important to overall soil health and carbon sequestration, which is key to the growth of terrestrial carbon sequestration markets (*reThink Soil: A Roadmap for U.S. Soil Health, The Nature Conservancy*,¹³ 2016). Cover cropping, no-till, and conservation tillage increase soil organic matter (Chambers, *et al.*, 2016; Poeplau and Don, 2015; Yu,¹⁴ *et al.*, 2020).

Consistent with the benefits associated with SOM and its relationship with cover cropping and tillage, a recent U.S. study on maize (corn), concluded that soil organic matter protects yields and lowers crop insurance payouts (Kane, *et al.*, 2021). Further, using long term evidence, Bowles, *et al.*, found that using *crop rotation diversification* across North America increased maize yield in all weather conditions, including drought (Bowles, 2020). Introducing advanced grazing management systems, such as management intensive grazing, into cropping systems has also been shown to improve soil health and, relatedly, increase soil organic material (*Wallace Center*,¹⁵ 2018).

Policy Impediments to Conservation Practice Adoption

Although the use of cover crops has increased over the last decade, only a small percentage of cropland acres—about 3.9% of all U.S. cropland—is planted in cover crops (2017 Agriculture Census¹⁶). While important changes were made in the 2018 Farm Bill related to cover crops and crop insurance eligibility, policy impediments—both actual and perceived—hinder conservation practice adoption by farmers who participate in the FCIP. These *challenges persist*¹⁷ despite RMA's recent changes to cover cropping guidelines intended to make it easier for producers to adopt the practice. Policy barriers fall into three main categories:

1. *Policies that prevent or make adoption of conservation practices challenging;*
2. *Lack of information regarding the compatibility of conservation practices with FCIP; and*
3. *Lack of incentives to implement conservation practices in the first place.*

For historical context and as an illustrative example, prior to the 2018 Farm Bill, farmers faced the danger that an indemnity claim would be denied if they did not either adhere to USDA guidelines regarding cover crop termination or receive advanced approval for deviations. This policy discouraged many producers from planting cover crops. To address this barrier, the 2018 Farm Bill included language that provided cover crops were to be considered good farming practices (GFP) so that termination deviations would be treated similarly to other farm management decisions.^[iii] In response, RMA removed the advanced approval requirement, re-issued slightly modified termination “guidelines” to clarify termination options for cover crops, and provided that cover cropping, including termination issues, could also use the good farming practices process if necessary. This shift in policy is important for

¹² <https://s31207.pcdn.co/wp-content/uploads/sites/4/2020/12/Frequently-Asked-Questions.pdf>.

¹³ <https://www.nature.org/content/dam/tnc/nature/en/documents/rethink-soil-external-paper-103116.pdf>.

¹⁴ <https://iopscience.iop.org/article/10.1088/1748-9326/ab6393>.

¹⁵ <https://pastureproject.org/wp-content/uploads/2020/02/CIG-Full-Trial-Report.pdf>.

¹⁶ <https://farmlanddaily.illinois.edu/2019/07/cover-crops-2017-us-census-of-agriculture.html>.

¹⁷ <https://foodandagpolicy.org/research-insights-how-does-crop-insurance-impact-on-farm-conservation-practices/>.

^[iii] Section 11107, The Agriculture Improvement Act of 2018 (2018 Farm Bill), P.L. No. 115-334.

reducing impediments to adoption. The guidance document, however, requires ongoing refinement and expansion by the Natural Resources Conservation Service (NRCS) so that the termination guidance can be used by innovative farmers without the need to go through the GFP process.

Despite this change, however, over a quarter of farmers in a recent survey expressed the belief that crop insurance is a barrier to cover crops, and 34.7% did not know whether or not crop insurance is a barrier (Fleckenstein, *et al.*, 2020).

This lack of knowledge indicates the need for RMA and NRCS to take an *affirmative and coordinated* outreach and education role to enhance awareness and understanding of the multiple benefits of cover crops.

Moreover, crop insurance coverage concerns continue for other conservation practices that are endorsed by NRCS, but where RMA must determine that implementation does not impact historic yield or maturation. This challenge of FCIP keeping up with conservation innovations that reduce risk is an impediment to broader adoption of conservation practices, as well as improved economic and environmental outcomes for producers. Fortunately, the secretary of the USDA has the authority to address this misalignment by improving the coordination between agriculture agencies in policy development and program delivery, strategies that are also necessary to attain the Administration's ambitious climate goals.

The third challenge is the lack of incentives to *adopt* risk-reducing conservation practices. The reasons why farmers choose not to implement conservation practices are multifactorial, but economic concerns are often an important factor in their decision-making (2019–2020 National Cover Crop Survey). To partly address this concern, recently *Illinois*,¹⁸ *Iowa*¹⁹ and *Indiana*²⁰ partnered with RMA to provide a \$5 per acre crop insurance premium discount for eligible farmers enrolled in FCIP who implement cover crops. Farmer demand for this modest incentive out-paced available funding.

Recently, RMA built on the overwhelming success of these state programs through the Pandemic Cover Crop Program (PCCP), a new initiative which offers a \$5 per acre premium discount for the 2021 crop year. To be truly effective, any incentive needs to be ongoing and available on an annual basis so that it encourages greater adoption and not only rewards past practice. The incentive should be extended to farmers enrolled in Whole Farm Revenue Protection, so the program is inclusive of diversified operations, including specialty crops. Additional funding for RMA to incorporate cover crop reporting into the Acreage Crop Reporting Streamlining Initiative (ACRSI) would also make cover crop reporting easier in the future. Finally, as the PCCP is implemented, we encourage USDA to capture and publish the results of this incentive to further demonstrate our understanding about the risk-reduction benefits of cover crops and ensure that Federal crop insurance policies acknowledge the connection between conservation, soil health and agricultural risk.

RMA's initiative to support cover crops in the current crop year is a positive step, but more must be done to accelerate the adoption of cover crops and other conservation practices. As we discuss further below, despite growing evidence that conservation practices reduce risks, the risk rating model used by RMA may not adequately recognize the risk reduction benefits of soil type, conservation practice adoption and other variables.

Assess the FCIP Rating Model

In order to more accurately and fairly assess risk, research is needed to help assess and, as needed, strengthen the FCIP risk rating model by addressing knowledge gaps and utilizing data to improve on-the-ground outcomes. In particular, the FCIP rating model should evolve—as supported by research—to consider the risk reduction benefits of conservation practices in the context of increased climate risk. Currently, RMA relies primarily on average historical yields (Actual Production History or APH) and loss costs to determine baseline insurable yield levels and risk rates but does not consider soil health improvements from conservation practice use. In particular, there is a lag between when soil health improvements will affect yield variability and performance in reality *versus* when they will be reflected in the RMA risk assessment (actuarial data). In the case of APH, it could take years for the soil health improvements to be fully reflected. In the case of rates, since loss experience—the amount of loss an insured farm experiences—of producers using conserva-

¹⁸ <https://www2.illinois.gov/sites/agr/Plants/CoverCrops/Pages/default.aspx>.

¹⁹ <https://www.cleanwateriowa.org/cropinsurancediscount>.

²⁰ <https://www.in.gov/isda/divisions/soil-conservation/cover-crop-premium-discount-program/>.

tion practices are pooled with loss experience in fields not using conservation practices, rates may be biased against conservation practice use relative to conventional practices.

A watershed 2017 study published in the *American Journal of Agricultural Economics* by Woodard and Verteramo-Chiu²¹ explored the feasibility of using soil data when determining crop insurance guarantees and rates. The researchers used high-resolution data sets for soil type, one indicator of soil quality and carbon sequestration potential, and overlaid other data regarding soil health attributes such as available water storage and soil organic carbon. The study found that estimating risk using available soil data sets is feasible. Further, the researchers found statistically and economically significant differences in premium pricing between RMA's risk ratings and the risk ratings calculated when incorporating soil data. In particular, RMA's ratings generally underpriced insurance premiums for low quality fields and overpriced high-quality fields, an artifact of pooling dissimilar risks in RMA's rating.

Other contemporary research confirms the risk reduction benefits of healthy soils. Following Woodard and Verteramo-Chiu (2017), Kane, *et al.* (2021) analyzed county data from 2000 to 2016 related to corn yield, drought and crop insurance claims. The data analysis showed that "counties with higher soil organic matter are associated with greater yields, lower yield losses, and lower rates of crop insurance payouts under drought," corroborating earlier work. Another recent study analyzed long term yield data sets for maize in the United States and Canada and found that diverse crop rotations increased yield *across all growing conditions* by 28% (Bowles, *et al.*, 2020). As severe weather becomes more commonplace and temperatures rise, the information from such studies likewise becomes increasingly more important to gather and apply.

Ongoing research will further enhance our understanding about the role of soil health and conservation practices in risk reduction.

In addition to the Conservation and Crop Insurance Research Pilot discussed above, research is underway through RMA's 508(h) process, which provides an avenue for third parties to propose new insurance products that could be beneficial to producers to determine how and in what combination ("stacked") conservation practices reduce risk. These 508(h) projects, if approved by the Federal Crop Insurance Corporation (FCIC) Board, could provide information for new insurance rating methodologies that explicitly consider conservation practices. The Conservation and Crop Insurance Research Pilot is an example of why the ability of third parties, such as companies, NGOs and others, to develop plans of insurance through the 508(h) process must be maintained and protected.

Harness the Power of Agriculture Data

Essential to improving the farm safety net to meet today's challenges is agriculture data.

Agribusiness has long understood the value of data in driving improved outcomes on the farm. For years now, companies like John Deere and The Climate Corporation have been collecting and using big data sets to analyze and improve productivity at the field level. USDA has a growing awareness of the need to modernize its approach to data collection and is taking affirmative steps to address multiple data silos, data gaps and a lack of data interoperability in order to improve its program implementation and to support extramural research. Consequently, supporting these efforts across agencies by addressing legal and policy gaps is essential to fully modernize USDA's approach to data collection and utilization.

AGree has been working with diverse stakeholders to help address *USDA's data collection and utilization issues*.²² For example, the 2018 Farm Bill included language at section 12618 that required the USDA to assess and report to Congress its current conservation datasets, and the effects of conservation practices on farm and ranch productivity. USDA's report to Congress inventoried major data sets but also described the limited authority to facilitate extramural research into the impacts of conservation practices on productivity.^[iv]

Since the passage of the 2018 Farm Bill, USDA has made inroads in addressing agriculture data shortcomings, but administrative barriers and legal gaps remain that stand in the way of harnessing the power of modern data analysis to improve programmatic outcomes. The good news is that these issues are solvable. For example, Senators Klobuchar and Thune supported the aforementioned agricultural data

²¹ <https://onlinelibrary.wiley.com/doi/abs/10.1093/ajae/aaw099>.

²² https://foodandagpolicy.org/wp-content/uploads/sites/4/2019/09/2018-July-Ag-Data_Improving-Productivity-while-Protecting-Privacy.pdf.

[iv] Report on file with Meridian Institute.

language in the 2018 Farm Bill that helped provide the impetus to USDA's current data efforts, including the *Crop Insurance and Conservation Practice Research Pilot*.²³ Currently, climate and other bills being considered by Congress, as well as a commitment at the USDA to optimize its programs and authorities to provide climate solutions and better serve farmers, provide a rare opportunity to address these administrative and legal issues. Adopting industry standard data infrastructure, security protocols and user permissions to protect security and confidentiality of producer data while automating and standardizing data collection, storage and sharing are key to moving the USDA's programs forward in a way that better serves farmers and accelerates climate-smart agriculture.

The Road Ahead

Given the challenges of climate change and other pressures on farmers, there is an urgent need to innovate our approach to the farm safety net.

A convergence of diverse, bipartisan stakeholders around the interrelationship between crop insurance, conservation and climate is providing a unique opening to do so. From these efforts, we have identified three, interrelated components for creating, implementing and continuously improving next generation risk management.

- **Data Innovation:** Modernize data collection, interoperability, storage, and sharing while protecting producer privacy.
- **Crop Insurance and Conservation Policy:** Improve crop insurance and conservation policy so that they work better for farmers and reduce risk while adopting new policies that encourage adoption of conservation practices that reduce risk.
- **FCIP Rating Model:** Enable research that helps strengthen the FCIP risk rating model by addressing knowledge gaps, and utilize data to assess and improve on-the-ground outcomes.

By harnessing the power of agricultural data, growing our knowledge about what conservation practices work and where and applying this knowledge to USDA programs, we can improve risk management, generate a host of co-benefits and provide a better value for farmers and taxpayers.

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Recognizing Early Innovators

Recommendations for Maintaining and Expanding Climate-Smart Agricultural Practices

March 2022

²³ <https://foodandagpolicy.org/agricultural-data/>.

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Although all the individuals formally affiliated with CFAD may not agree completely with every statement noted, they are committed to working together to find solutions to the challenges facing food and agriculture. CFAD members participated as individuals, not as official representatives of their organization.

Foreword

The Climate, Food, and Agriculture Dialogue (CFAD) is a group of climate, food, and agriculture interests advocating for ambitious and durable Federal policy solutions on food systems and climate change. The Dialogue’s long-term goal is to enact Federal climate policy in line with our *guiding principles*.^[i]

This paper provides insight and recommendations on the challenges facing “early innovators.” Early innovators are our leaders in conservation agriculture. They have tested and developed climate-smart practices, demonstrated the benefits, and paved the way for others to follow. Unfortunately, early innovators can be excluded from public and private conservation programs, which target incentives toward farmers who are new to the conservation space.

As public and private investments in climate-smart agriculture increase, we risk excluding the very leaders who blazed the trail for the expansion of climate-smart agriculture. Our goal should be to develop an agricultural system that encourages maintenance of existing climate-smart practices, continued innovation, and broader adoption of climate-smart practices by producers who have not yet been persuaded to adopt them. The recommendations within this paper were developed with that goal in mind.

We hope you find it to be a useful resource.

The AGree Climate, Food, and Agriculture Dialogue (CFAD)

Introduction

*Expanding climate-smart agriculture is a central tenet of the Biden Administration’s whole-of-government approach to address climate change, stimulate economic growth, and support agricultural productivity.*¹

At the 26th United Nations Climate Change Conference of the Parties (COP 26), President Biden launched the *Agriculture Innovation Mission for Climate*^[ii] in partnership with the United Arab Emirates, 31 other countries, and 48 NGOs, to mobilize \$8 billion in investments in climate-smart agriculture over the next year.

Pursuant to that goal, U.S. Secretary of Agriculture Tom Vilsack highlighted USDA’s Climate-Smart Agriculture and Forestry Partnership Initiative as a key strategy for advancing climate-smart agriculture, saying:

“We’re positioning U.S. farmers, ranchers, and forest landowners as leaders in addressing climate change, while at the same time creating new market opportunities for them through pilot projects that invest in science, monitoring, and verification to measure the benefits of climate-smart production practices. Unlocking these markets will be key to tapping into the incentives needed to adopt climate-smart practices on the ground.”²

As programs are developed by both government and the private-sector to address climate change by incentivizing adoption of climate-smart practices, many farmers and policymakers are asking how the contributions of the “early innovators” of these practices will be recognized and rewarded.

Early innovators are our leaders in conservation agriculture—they have tested and developed new climate-smart practices, proved their efficacy and long-term profitability, and paved the way for others to follow. Although early innovators shoul-

^[i] <https://climatefoodag.org/guiding-principles/>.

¹ USDA is in the process of developing an official definition of “climate-smart agriculture.” In this paper, we use the term to refer to integrated agricultural practices that maintain or increase productivity, enhance resilience, and reduce emissions (avoiding emissions or potentially removing them from the atmosphere) on U.S. working lands.

^[ii] <https://www.usda.gov/media/press-releases/2021/11/02/launching-agriculture-innovation-mission-climate>.

² United States Department of Agriculture. [Press Release 0239.21]. (2021, November). *USDA Underscores Commitment to Climate Action at COP26* | USDA (<https://www.usda.gov/media/press-releases/2021/11/05/usda-underscores-commitment-climate-action-cop26>).

dered the risk and, in many cases, the cost of establishing climate-smart agricultural practices, newcomers to climate-smart agriculture are now better positioned to participate in programs looking for new carbon sequestration and emissions reductions (“additionality”). This puts the early innovators at a financial disadvantage to other producers, who have more room for improvement and will be able to stack greater income from ecosystem service payments. Early innovators should not be financially penalized going forward because they chose to take action sooner than others.

There is also concern that the challenge early innovators face in generating additional emissions reductions could create a moral hazard—the financial incentive to revert to conventional management to become eligible for private carbon markets. These concerns beg the question: **How do we create a system that ensures farmers who have transitioned to climate-smart agricultural practices will maintain practices over the long-term, while continuing to improve and innovate?**

The purpose of this paper is to outline a framework for understanding the early innovator issue and share CFAD’s consensus recommendations.

Issue Assessment

Over the fall of 2021, CFAD convened panel discussions composed of private-sector, government, and NGO experts to better understand the issue and develop a set of consensus policy recommendations. Based on these discussions, our assessment of the early innovator issue is as follows:

- **There is no single, agreed-upon definition of what makes producers “early innovators,”** which complicates discussions about how their contributions should be considered and recognized. “Early innovators” are generally referred to as producers who have implemented some number of conservation practices, and it is inferred that these practices likely have been in place for a significant amount of time (*i.e.*, longer than just a few years). The reality is that the early innovator community is not a monolith—it includes crop and livestock producers who have implemented climate-smart practices on the entirety of their farm for decades, as well as those who have periodically implemented selected practices on just a portion of their operation for shorter durations. Furthermore, many producers who have adopted one or more conservation practice will still be eligible for carbon market programs if they agree to expand or add new practices. **Policy discussions should recognize that early innovators face varying degrees of difficulty in benefiting from carbon market programs**—including small- and medium-sized, diversified, and BIPOC producers—depending on the breadth and duration of their conservation actions, the size of their operations, and geography and soil type.
- **We do not have a comprehensive assessment of how many early innovators exist and consequently do not understand the magnitude of the risk of losing their established conservation progress.** Estimates point to a relatively low number of farmers who would be entirely excluded from carbon markets. Data from the National Agricultural Statistics Service’s (NASS) 2017 Agricultural Census estimates that conversion to no-tillage systems has slowed in recent years, only expanding from 96.5 million acres to 104.5 million acres between 2012 and 2017. Increase in cover crop acreage has been more significant over that period; however, the total extent of cover crop adoption remained relatively low at only about 15 million acres in 2017.³ NASS also reports that there are 5.5 million acres in organic production as of 2019.⁴ These numbers can be interpreted either as a minor issue in the grand scheme of the climate crisis or as millions of acres of U.S. farmland potentially at risk of losing conservation practices due to perverse incentives.
- **Early innovators are an important group of producers—they represent conservation innovation, leadership, hard work, and risk-taking.** They have created conservation benefits that need to be recognized and maintained. Moreover, agricultural communities look to early innovators before investing in climate-smart and other conservation practices. Seeing unequal compensation

³National Agricultural Statistics Service. 2017. CENSUS OF AGRICULTURE Vol. 1, *Chapter 1: U.S. National Level Data (Table 47: Land Use Practices by Size of Farm: 2012 and 2017)*. Retrieved from [st99_1_0047_0047.pdf \(usda.gov\)](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_US/st99_1_0047_0047.pdf) (https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_US/st99_1_0047_0047.pdf).

⁴National Agricultural Statistics Service. 2020. 2017 CENSUS OF AGRICULTURE Vol. 3, *Special Studies, Part 4: 2019 Organic Survey*. Retrieved from https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Organics/index.php.

for the same practices could alienate conservation leaders and disincentivize the teaching, promotion, and adoption of innovative, new climate-smart agricultural practices. **Our goal should be to develop an agricultural system that encourages maintenance of existing climate-smart practices, continued innovation by conservation leaders, and the adoption of climate-smart practices by producers who have not yet been persuaded to adopt them.**

Recommendations

A range of incentives have been proposed to reward early innovators for past actions, including one-off, lump-sum payments and amending USDA conservation programs to reward conservation maintenance. However, CFAD proposes that the most sustainable and influential way to maintain and expand climate-smart agricultural practices is to build the business case for conservation adoption. This can be done by embedding incentives for the adoption and maintenance of climate-smart agricultural practices throughout agricultural markets, finance systems, regulatory processes, and insurance programs. These strategies will benefit both early innovators and those new to climate-smart agricultural practices.

Our recommendations for creating this system include the following:

1. **The USDA Economic Research Service should conduct a literature review of existing research to understand the economics around producer motivations for implementing and maintaining climate-smart practices.** Research should answer the following questions, which can offer important lessons for current USDA efforts to promote conservation adoption:
 - How many early adopters exist and how many acres of U.S. farmland are currently in conservation practices? How many of them are unlikely to qualify for private carbon market contracts?
 - What are early innovators' motivations for implementing conservation practices and the current business case for practice maintenance? Many early innovators have been supported in their efforts by USDA conservation program funding and technical assistance. Once those programs have run their course, what is the bottom-line benefit to the producers to maintain their efforts?
 - How likely are early innovators to “undo” their current soil health practices to qualify for carbon market payments? Does the promise of a carbon market payment outweigh the soil health and other financial benefits of continued conservation?
 - How many early innovators have already received government payments for implementing climate-smart practices? Potential compensation of early innovators should take into account if they already received some sort of incentive based on other ecosystem benefits—*e.g.*, soil erosion, water quality, habitat, *etc.*
 - In emerging markets where producers are able to stack payments for product with payments for ecosystem services, what is the extent of the financial disadvantage this creates for early innovators?
 - What has caused the stagnation of climate-smart practice adoption nationally?
2. **The Federal Crop Insurance Program (FCIP) should recognize the risk-reducing benefits of conservation practices.** Expanding the good farming practices accepted by the FCIP to include NRCS-approved “good farming practices” that are proven to reduce risk is one cost-effective approach. Lowering the cost of crop insurance premiums for producers with a record of using climate-smart practices that reduce agricultural risk is another. There is actuarial evidence that certain conservation practices such as cover crops, reduced tillage, and crop rotation are effective risk-reducing strategies that include substantial climate benefits; these benefits should be recognized through crop insurance premiums.⁵ For example, a new crop insurance endorsement for corn farmers called the *Post-Application Coverage*

⁵The Case for Next Generation Crop Insurance (https://foodandagpolicy.org/wp-content/uploads/sites/4/2021/06/AGree_SynthesisCropInsurancePaper.pdf), a white paper published by the AGree Economic and Environmental Risk (E2) Coalition, summarizes important takeaways to date from work done by the E2 Coalition's work on Federal crop insurance and conservation.

Endorsement (PACE)^[iii] provides supplemental coverage for farmers who split-apply nitrogen, a practice that supports the nitrogen needs of corn at specific times in the crop's growth cycle. This endorsement incentivizes the efficient use of fertilizer and promotes cost savings for producers and has important environmental benefits by reducing nitrogen release into water and air. Private-sector opportunities to capture environmental and risk-reducing benefits by paying for insurance products such as PACE should also be explored.

3. **Agricultural lenders should recognize the economic benefits of conservation practice adoption, including improved soil health and reduced agricultural risk, when offering loan terms to producers.** A growing body of evidence is demonstrating that, over the long term, conservation practices can reduce farmer costs and risk, increase asset value of farming operations, increase yield resilience, and diversify farm income streams—producing benefits for both farmers and their financial partners. These benefits should be quantified and incorporated into financial products offered to farmers who adopt climate-smart agricultural practices.⁶
4. **USDA should continue to explore the development of climate-smart commodity markets that reward early innovators through new market mechanisms. Supporting markets that preference agricultural commodities produced using practices that reduce greenhouse gas emissions or sequester carbon would strengthen the business case for climate-smart agriculture.** This is a place where early innovators have a significant head start given their years of experience and can capitalize on their technical expertise. In addition, USDA should use existing authorities to develop infrastructure (*e.g.*, drying technologies, composting systems, seeds stocks, *etc.*) that supports the implementation of new practices, commodities, and livestock and cropping systems.
5. **Ecosystem markets that allow producers to generate both carbon credits and other ecosystem services credits from the same project should be explored to create stacked incentives to expand and maintain existing conservation practices.** When it comes to ecosystem services, the whole is greater than its parts—stacking payments is a way to recognize the greater value that more intact ecosystems provide. Such markets may allow early innovators to generate income from the full range of ecosystem services they create as well as increase the market incentives for conservation overall by providing multiple income streams. As ecosystem services markets take shape, it is critical they are inclusive of small- and medium-scale, diversified, and BIPOC producers.
6. **Food and beverage companies should consider how early innovators can be included in supply chain sustainability programs** to reduce scope 3 emissions.⁷ As companies work to reduce emissions and meet climate commitments, they should ensure early innovators are eligible for any incentives and programs to expand adoption of climate-smart practices.
7. **USDA and Congress should systematically work to expand and improve existing conservation programs, drawing on CFAD's recommendations for investing in working lands conservation.**^[iv] This includes making changes to expand enrollment, strengthen our network of technical assistance providers, and increase the accessibility of NRCS offices and resources to all producers. Adjusting programs to be more outcomes-based and reward producers based on the conservation benefits they have generated can also help maximize program impact. However, USDA should continue to

^[iii]<https://pacecropinsurance.com/>.

⁶The Environmental Defense Fund has released numerous studies and reports identifying how farmers and financial partners can quantify the financial benefits of conservation practices and incorporate that value into policies, products, and decision-making. These resources can be found *here* (<https://www.edf.org/ecosystems/how-conservation-delivers-value-farm-and-beyond>).

⁷Companies can assess and report their greenhouse gas emissions across three different “scopes” using the Greenhouse Gas Protocol. Scope 1 refers to greenhouse gas emissions from an organization's directly owned and controlled resources. Scope 2 refers to indirect emissions from the energy an organization purchases from a utility provider. Scope 3 includes indirect emissions from a company's supply chain—for example, the production of wheat or the transport of corn purchased by a food company. Carbon offsets can be applied to mitigate an organization's scope 1 and 2 emissions, while carbon insets can be applied to mitigate scope 3 activities. While protocols for measuring scope 1 and scope 2 are outlined in the Greenhouse Gas Protocol, protocols for measuring scope 3 emissions have not yet been finalized.

^[iv]<https://climatefoodag.org/investing-in-working-lands-conservation/>.

build on recent investments to develop measuring, reporting, and verification tools that accurately quantify the ecosystem services of more diversified systems. This is critical to ensure that highly diversified systems are accurately rewarded for the complex ecosystem services they provide.

8. **USDA should offer technical assistance to states that wish to create programs that give producers who adopt or have adopted climate-smart agricultural practices regulatory certainty on compliance with environmental safeguard policies** (e.g., Clean Water Act requirements, Endangered Species Act).⁸ Such programs benefit early innovators by providing regulatory certainty in exchange for the adoption and maintenance of climate-smart practices.

Conclusion

The primary goals of our national agriculture-climate policy should be to maintain the progress that early innovators have achieved by using climate-smart agricultural practices while actively engaging new growers in adopting and expanding use of these practices.

While carbon markets offer one pathway to reward innovators of climate-smart practices, there are many other tools, even in the face of limited resources, that can be utilized to recognize and reward the work of agriculture's conservation leaders. The added value and profitability of climate-smart operations should be systemically rewarded through reduced crop insurance rates, increased land values, climate-smart commodity markets, ecosystem service markets, as well as preferential treatment from USDA programs and regulatory agencies.⁹

We need to use a variety of tools and applications to reward climate-smart agriculture—no single tool will work for all producers and production systems. **Only by constructing an agricultural system that consistently rewards conservation adoption will we be successful in expanding climate-smart agriculture at the magnitude required to help mitigate climate change.**

Recommendations for Investing in Working Lands Conservation

About CFAD

AGree's *Climate, Food, and Agriculture Dialogue* ^[i] brings together a diverse group of farmers, ranchers, and foresters; environmental NGOs; supply chain companies; and former government officials. CFAD members have divergent views of the issues and opportunities facing U.S. agriculture, but we share a common view that **climate change demands ambitious and durable Federal policy solutions that are commensurate with the urgency and scale of the problem.** We see U.S. food and agriculture system as a crucial source of solutions to address climate change and the degradation of nature, which includes our land and water resources. These solutions must provide transparency and promote affordability while distributing costs and benefits in such a way that promotes equity and value to land managers. The scientific consensus that the climate is changing at an increasingly rapid pace is incontrovertible. The timeframe for taking meaningful action to avoid catastrophic impacts is running short. Our guiding principles for Federal policy on climate change and food systems can be viewed *here* ^[ii].

Exponentially increasing regenerative farming practices on American agricultural land represents an incredible opportunity to generate benefits for the environment, agricultural producers, and society at large. America's

⁸For example, the Minnesota Agricultural Water Quality Certification Program (MAWQCP) is a statewide program in Minnesota designed to recognize and reward agricultural stewards of water quality. Farmers and landowners who treat risks to water quality are certified under the program and deemed in compliance with any new water quality laws or rules for 10 years. Certification gives farmers greater certainty about regulatory standards and assures the public that Minnesota's farmers are doing their part to protect and improve water quality.

⁹We want to see climate action across U.S. working lands and would note a caution that USDA could inadvertently create additional issues by paying for practices without producers being enrolled in markets. Past practices aren't eligible for credit generation so if producers take on new practices that could generate credits, they need to be enrolled to get market credit for those outcomes.

^[i]<http://www.climatefoodag.org/>.

^[ii]<https://climatefoodag.org/guiding-principles/>.

working lands represent 40% of the nation's acreage.¹ Responsible, increased investments in working lands conservation and regenerative agriculture are critical to help the Biden Administration reach its goal of negative emission farming and engaging 30% of the nation's land and water in conservation,² as well as to reaching a growing number of climate commitments made by farm groups and food companies. A responsible balance between working and idle land conservation is the common-sense approach to reduce greenhouse gas emissions, improve soil health and water quality and quantity, and increase agricultural productivity. We can do this in a way that makes economic sense for producers and advances equitable access to Federal conservation programs. **We need to expand the network of technical assistance providers and expertise available to farmers and ranchers. To accomplish these goals, we need to exponentially increase funding for existing conservation programs.** Ultimately, these recommendations will help USDA expand and streamline existing conservation programs for maximum impact.

CFAD has released two additional resources: USDA Research and Science Recommendations and a concept note for the development and operation of a USDA National "Climate Bank." Sustainable, climate-smart agriculture requires a suite of policies and a systems approach to bring lasting management changes. **CFAD is committed to working with USDA and Congress as they develop policy and programs that work for producers, the environment, and society.**

Introduction

Policies to expand conservation practices must be grounded in the perspective of farmers and ranchers, with an understanding of the barriers that a range of producers face to joining new Federal programs. We know that many farmers and ranchers make farm management decisions on an annual basis, informed by current crop and livestock prices and their years of experience, in order to maximize their farm's production and profitability. Barriers to joining new programs include a backlog of applications and long waiting lists; a lack of clear, concise communication on the costs and benefits of conservation practices and programs; the complexity and paperwork involved in program enrollment; and, in some places, a technical assistance network that is stretched too thin or lacks the relevant expertise in nutrient management, irrigation management, feed management, soil health, organic transition, and new conservation technologies that producers need to make the best management decisions for their operation. The following policy recommendations are targeted to address these challenges and expand the Federal conservation incentive and support system to effectively educate and enroll the greatest number and diversity of farmers.

The U.S. Department of Agriculture (USDA) and Congress have several immediate opportunities to promote climate-smart agriculture throughout the United States. This set of policy recommendations outlines how USDA and Congress can:

- I. Exponentially increase conservation program funding,
- II. Elevate a focus on conservation and climate solutions at USDA,
- III. Tailor existing conservation programs to maximize effectiveness and promote whole-farm conservation planning,
- IV. Expand and improve technical assistance for conservation adoption, and
- V. Align financial incentives to recognize the financial and risk-reduction benefits of conservation.

As USDA considers how to best align farm programs and financial mechanisms towards promoting conservation, the following guideposts should be kept in mind:

1. **Ensure farmer profitability is at the forefront of efforts to expand conservation practice adoption.** Creating new economic opportunities for farmers is critical to expanding voluntary adoption of conservation practices and creating a successful and resilient agricultural system.
2. **Ensure that the full diversity of American agricultural producers can participate in incentive programs**, with a particular focus on including Black and Indigenous farmers, young and beginning farmers, small and midsize farmers, and farmers who grow a diversity of crops and/or integrated crop-livestock systems.

¹ https://www.nass.usda.gov/Publications/Todays_Reports/reports/fnl0220.pdf.

² Outlined in President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad (<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>).

3. **Create ecosystem services, maintain or increase biodiversity, and reduce the overall footprint of farming,** while considering environmental impacts beyond just sequestering carbon to include other greenhouse gas emissions reductions, soil health improvements, water quality and quantity enhancements, and wildlife and pollinator habitat protection.
4. **Start with incentivizing practices that we know are effective based on best science and evidence** (*e.g.*, cover cropping, crop rotations, rotational grazing, nutrient management, manure management, irrigation management, *etc.*) in order to start making progress while research continues on other critical practices.
5. **Invest in systems to monitor and measure the outcomes of practices and programs.** This is critical to ensure that the benefits of conservation programs are being realized. Landscape-level monitoring is essential to build consensus that USDA programs are effective tools for reducing greenhouse gas emissions. In addition to further developing USDA tools such as *COMET Planner*,^[iii] there is a need for more regional and industry-specific modeling tools to effectively measure practice outcomes across diverse geographies, climates, soil types, and production systems.
6. **Consider the long-term adoption of conservation practices, permanence of ecosystem services, and the advantages of early action by farmers.** Congress and USDA should continue to incentivize early adopters to maintain the benefits of their practices and encourage further innovation that can lay the groundwork for scalable adoption of more practices.
7. **Strive to incentivize continuous improvements.** Programs such as the Conservation Stewardship Program (CSP) help support lasting change, continual improvement, and measurable impact through long-term, renewable contracts.
8. **Avoid sending mixed signals or creating perverse incentives.** There is a need to create shared, understood objectives for agriculture policy to ensure different policies do not work at cross-purposes.

The policy recommendations outlined herein advance these principles by centering the advice and guidance from producers to design programs that will work for them, by suggesting ways to expand and improve our current conservation delivery system to advance whole-farm ecosystem planning and by providing thought leadership about the challenge of incentivizing early adopters to maintain their historic practices and progress. If implemented, the policy recommendations outlined in the following pages will advance these ideals and support our transition towards more climate-resilient and profitable agricultural and forestry systems.

I. Exponentially Increase New Funding for Existing Conservation Programs

Congress should provide USDA a three- to five-fold increase in new funding for conservation programs in order to expand adoption of conservation practices as quickly as possible on working lands. The 2021 Fiscal Year budget for NRCS conservation programs is \$3.9 billion,³ therefore we suggest increasing funding to between \$11.7–\$19.5 billion to accomplish our climate goals. Increasing conservation program funding is critical to expanding conservation adoption, especially because the last increase in program funding occurred in the 2008 Farm Bill, and program dollars have leveled off or decreased since then.⁴ A significant increase in conservation funding is the quickest strategy to immediately increase conservation adoption, directly benefit farmers and ranchers, and begin delivering immediate increases in carbon sequestration, emissions reductions, and other environmental benefits that working lands provide. Furthermore, a growing number of policymakers and agricultural groups support this idea.⁵

^[iii] <http://comet-planner.com/>.

³ <https://www.usda.gov/sites/default/files/documents/usda-fy2021-budget-summary.pdf>.

⁴ <https://www.ers.usda.gov/topics/natural-resources-environment/conservation-programs/>.

⁵ A growing number of policymakers and agricultural groups support an increase in conservation program funding. A recent letter (<https://www.nwf.org/-/media/Documents/PDFs/Press-Releases/2021/04-27-21-American-Jobs-Plan-Ag-sign-on-letter>) signed by 133 leading farm groups recently suggested a doubling of conservation program funding. The Food and Agriculture Climate Alliance (FACA), consisting of almost 70 agriculture, food, forestry, and environmental organizations, has suggested a 20% increase in program funding. Senator Cory Booker and Congresswoman Abigail Spanberger introduced the *Climate Stewardship Act* (<https://www.booker.senate.gov/news/press/with-fdrs-new-deal-as-blueprint-sen-booker-and-rep->

The Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Regional Conservation Partnership Program (RCPP) are three voluntary, incentive-based conservation programs that we know are effective in expanding conservation on the ground. In 2020, EQIP contracts enrolled 3.8 million acres of farmland in at least one cropland soil quality practice,⁶ and the CSP program had 6.4 million acres enrolled in active, comprehensive, whole-farm conservation contracts.⁷ A review of 26 research trials conducted by Sustainable Agriculture Research and Education program (SARE) suggests that cover crops have the potential to sequester 3 metric tons of CO₂-equivalents (CO₂e) per acre per year.⁸ Using this metric, **increasing cover crop adoption by 30 million acres through increased conservation program funding could sequester an additional 90 million tons of CO₂e annually.**

The Regional Conservation Partnership Program (RCPP) is unique in that it allows NRCS to partner with local organizations and communities to address natural resource goals at the regional level. Since 2014, RCPP has funded over 375 high-impact projects across the U.S., bringing in an estimated \$2 billion in matching funding from partners.⁹ RCPP is a model for leveraging partnerships and partner funding to achieve maximum impact from Federal conservation dollars and could be expanded, particularly through the program's Alternative Funding Arrangements (ARA), with a focus on targeting climate-smart agricultural practices.

Despite the success of NRCS conservation programs, they have long waiting lists and low acceptance rates due to lack of funds. Historically, USDA has only been able to accept ¼ of applications received for conservation programs. Exponentially increasing conservation program funding will allow NRCS to fund and execute more contracts, hire additional technical assistance personnel, and ultimately leverage NRCS's existing infrastructure to expand conservation, carbon sequestration, and environmental benefits as quickly as possible.

Ensuring Equitable Access to USDA Resources

In addition to exponentially increasing conservation program funding, measures should be taken to ensure these resources are accessible to small, beginning, Black, Indigenous, and People of Color (BIPOC), and socially or economically disadvantaged farmers and ranchers. USDA's history of discrimination against BIPOC farmers in allocating loans and conservation payments has led to a lack of trust with producers of color, which USDA must take steps to address. In addition, producers with less time and fewer resources to learn about and navigate USDA programs are often left out of funding and cost-share opportunities. However, we know that engaging the full diversity of U.S. agriculture in climate-smart practices is critical to addressing climate change and ensuring the benefits of new funding are equitably distributed.

*spanberger-re-introduce-climate-change-bill-focused-on-investing-in-farm-conservation-programs-
reforestation-and-wetlands-restoration*), which calls for nearly doubling the Conservation Reserve Program to 40 million acres a year and increasing funding for both the Conservation Stewardship Program and the Environmental Quality Incentives Program to \$7 billion a year. The Agriculture Resilience Act introduced by Congresswoman Pingree and Senator Heinrich also calls for robust investments in Federal conservation programs. In addition, Senate Agriculture Chairwoman Debbie Stabenow has made *public remarks* (<https://www.agri-pulse.com/articles/15764-stabenow-pushing-for-big-boost-in-conservation-says-biden-plan-falls-short>) pushing for a major increase in conservation program funding.

⁶https://www.nrcs.usda.gov/Internet/NRCS_RCA/reports/fb08_cp_eqip.html.

⁷https://www.nrcs.usda.gov/Internet/NRCS_RCA/reports/fb08_cp_cstp.html.

⁸<https://www.sare.org/publications/cover-crops/ecosystem-services/cover-crops-and-carbon-sequestration/>.

⁹<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/rcpp/>.

In order to reduce barriers for small, beginning, and BIPOC farmers and ranchers to engaging in USDA programs, we suggest USDA place a high priority on expanding funding for non-traditional technical assistance providers that already work with these producers. For example, the Intertribal Agriculture Council plays a key role in assisting Indian producers in accessing and using USDA programs and services. In addition, streamlining existing conservation programs, fast-tracking approval and funding for conservation plans that propose to implement well-understood practices, and offering producers assistance with creating whole-farm conservation plans can help reduce barriers to engaging in USDA programs and support conservation planning for producers with fewer resources. These policy ideas are further explored later in this document.

II. Elevate a Focus on Conservation and Climate Solutions at USDA

To ensure that climate efforts at USDA are effective, strategic, and widely supported, USDA should revise the mission statement and goals for each USDA agency to create a clear and prominent focus on climate-smart agricultural practices. Agencies should be directed to prioritize conservation practices that not only sequester carbon but include co-benefits for nature including improved soil health, water quality, and wildlife habitat. Articulating a department-wide vision for on-farm outcomes (both economic and environmental) and conservation outcomes at the landscape and watershed levels would help to drive strategic decision making by individual agencies and programs.

Taking steps to improve data collection, analysis, and sharing between agencies will help USDA achieve these conservation and climate goals. Increased integration and analysis of this agricultural data is key to understanding how the food and agriculture sector can develop and implement solutions to climate change (read CFAD's *Research Recommendations*^[iv] for more detailed recommendations about USDA research and science on climate-smart agriculture). Existing tools such as *COMET-planner*^[v] can be used to provide guidance for the most impactful practices by farming systems to prioritize, as well as create proxies for measuring practice outcomes while more comprehensive monitoring and measurement systems are developed.

As USDA works to advance its data infrastructure and analysis, the agency should ensure that data architecture for USDA conservation planning and programs provides value back to producers. Producers should be able to electronically access the data they provide to [USDA] and all available USDA planning tools and incentives available to them. USDA data systems should be aligned with the tools and technologies producers need to use to participate in ecosystem services markets. USDA should expand efforts toward data interoperability to enable producers to enter data once and use it many times. This is critical to building the value proposition for producers to share their data.

III. Tailor Existing Conservation Programs to Maximize Effectiveness and Promote Whole-Farm Conservation Planning

USDA should adjust existing conservation programs to streamline program enrollment and administration, reduce barriers to enrolling in conservation programs, better communicate the benefits of climate-smart farming practices, and provide assistance for farms to optimize conservation benefits. While current conservation programs are generally effective, adjusting contract structures can reduce the significant administrative burden currently facing NRCS staff, freeing up more time to work directly with farmers on conservation planning and implementation. In addition, a stronger focus on conservation and climate planning can support farmers and ranchers in understanding how their farm management can most effectively contribute to climate mitigation efforts. Improving USDA program accessibility and ensuring support for conservation planning is widely available can help small, beginning, and BIPOC producers access program benefits.

CFAD policy recommendations to achieve this goal include:

- **Offer assistance for farms to develop conservation plans specifically tailored to optimize environmental benefits and increase production resilience to climate change impacts** while considering the economic realities

^[iv] <https://climatefoodag.org/research/>.

^[v] <http://comet-planner.com/>.

of each farm. USDA should move immediately to implement a provision included in the 2018 Farm Bill to provide producers a one-time payment for comprehensive conservation planning. Current programs such as EQIP and CSP can also promote a holistic understanding of climate mitigation and encourage the adoption of practices with environmental benefits beyond carbon sequestration, such as nutrient and irrigation management. This can also be advanced by creating bundles of climate practices and enhancements that, when combined, will decrease emissions, increase carbon sequestration, and provide long-term farm resiliency for participating farmers and ranchers. This could include bundles for feed management for livestock to reduce emissions, rice system management to reduce methane emissions, crop rotations to improve soil health, and/or a nutrient management program to increase nitrogen use efficiency.

- **Fast-track conservation plans and contracts for conservation practices that are well-understood, easy to implement, and scalable, such as cover cropping, conservation tillage, and irrigation management.** This must be done in combination with a significant increase in conservation program funding, so farmers who have been waiting to have contracts processed are not disadvantaged. Whole-farm conservation plans should not be a prerequisite for producers interested in adopting specific conservation practices, since these can present a roadblock to conservation adoption and discourage participation.
- **Prioritize the implementation of a narrower range of individual practices with scientifically supported impact values (e.g., climate, water, and biodiversity) among certain farming systems in specific regions.** A shorter list of “climate practices” will help various and diverse producers choose the most impactful practices to assist in building their own distinct agricultural management systems. States and regions can choose the practices that are most practical for the farm-systems that operate in specific areas.
- **Create multi-year EQIP contracts with declining payments over time,** whereby a producer receives a smaller cost-share payment each year as transaction costs decline. Implementing some conservation practices can have a high up-front cost, but as practices become established, they begin to produce greater benefits over time. A declining payment structure provides a greater incentive up-front, when it is needed by producers, and then declines to reflect the reduced cost and increasing benefits to the farm. Farmers who are starting their conservation journeys could apply for an EQIP contract, and after one or two contracts, farmers could then be eligible to “graduate” to CSP to maintain and expand their conservation practices.
- **Prioritize multi-practice, multi-year incentive contracts.** For example, EQIP and CSP contracts focusing on climate impacts and/or soil health should prioritize producers who desire to adopt multiple practices for multiple years, therefore increasing the odds of measurable impact and lasting behavior change. Prioritizing multi-practice, multi-year contracts reduce the need for additional transactions in the future, thereby streamlining program administration. The CSP program provides multi-year, renewable contracts to support lasting change, continual improvement, and measurable impact.

IV. Expand and Improve Technical Assistance for Conservation Adoption

USDA and Congress should increase funding for technical assistance, invest in training and technology dissemination, and expand the use of partnerships to bolster and improve technical assistance. Technical assistance is critical to providing the information and guidance needed for producers to feel confident in adopting new practices and to supporting new, beginning, and BIPOC farmers in enrolling in USDA programs. Producers need clear, streamlined communications from USDA about what programs are available and what support they can access. Creating additional flexibility and resources for NRCS field office personnel to partner with agricultural extension offices, local conservation districts, and non-traditional technical service providers can help expand capacity and address gaps in NRCS expertise. In addition, there may be creative opportunities for cross-training and expertise sharing within programs at USDA. For example, a partnership between NRCS and the USDA National Organic Program could enlist accredited organic certifying agents to deliver technical assistance to conservation during the production off-season.

Many NRCS field offices have limited expertise in several areas critical for climate planning, including livestock feed management, improved nutrient management for crops, irrigation management, pasture and advanced grazing management,

soil fertility, cover crops, perennial agriculture, diverse cropping systems, new technologies that can help mitigate the environmental impacts of farming, and the economic return on investment for regenerative farming practices. Immediately addressing these expertise gaps is essential to providing farmers and ranchers the best available information for improving the profitability and climate resilience of their operations.

CFAD recommendations to improve and expand technical assistance include:

- **Increase funding for technical assistance.** Increase technical assistance funding and support for NRCS field offices, conservation districts, and technical assistance cooperators. Additional funding is needed to expand overall capacity and ensure additional technical assistance support does not affect conservation incentives provided through EQIP and CSP.
- **Invest in training and technology dissemination for NGOs, conservation community, extension, and NRCS personnel.** There is an immediate and urgent need to train NRCS field staff and technical assistance cooperators on climate issues, programs, policies, and emerging technologies (*e.g.*, manure management) that can help drive adoption of climate solutions on working lands.
- **Invest in programs such as 4-H, Future Farmers of America (FFA), and the National Conservation Foundation Envirothon that create a pipeline for young people to become interested in agricultural extension.** In order to expand interest in and continue the legacy of a strong U.S. agricultural industry, we need to build and train a generation of smart, motivated young people who are excited to work as farmers, technical assistance providers, and extension agents.
- **Expand technical assistance partnerships through:**
 - **Increasing the use of cooperative agreements to provide non-Federal partners more flexibility** and avoiding the complexity and underutilization of the current Technical Service Provider certification process. These cooperative relationships should be designed to expand NRCS's capacity to provide climate resilience and carbon management expertise.
 - **Utilizing Conservation Stewardship Program (CSP) enhancements or Crop Assistance Program (CAP) payments to pay for the use of third-party advisors for climate management.**
- **Support and promote peer-to-peer farmer networks.** Farmers sharing their experiences and knowledge with one another is a powerful strategy to build momentum and support for climate-smart agriculture.
 - One model for creating these opportunities through USDA programs is the NRCS *Grazing Lands Conservation Initiative*,^[v] which enlists state committees and grassroots coalitions that find opportunities to increase technical assistance and create public awareness of activities that maintain or enhance grazing land resources. This model could be replicated to leverage the knowledge and experiences of early adopters to build trust and expand climate-smart agricultural practices.
 - The *Climate Adaptation Fellowship*^[vi] is another peer-to-peer model that provides farmers, foresters, and advisor the information they need to adapt to climate change. This curriculum was developed through a partnership between several universities, the USDA Northeast Climate, NRCS, and other partners, and is another model for collaborative extension efforts.

V. Align Financial Incentives for Conservation

The purpose of Federal conservation programs is to incentivize and support farmers and ranchers in adopting new conservation practices that provide societal and environmental benefits. Producers who receive this support should then be enabled to monetize the environmental benefits through enrolling in private ecosystem service markets. **The role of the government is to provide support where there is a failure of private markets to reward public goods. This includes creating financial incentives for producers who are transitioning to new conservation practice adoption and for early adopters.** It is also important to note that any policy that USDA develops must allow for and recognize existing private markets and not adversely impact, interfere or duplicate private-sector efforts. To align incentives for conservation, CFAD recommends:

^[v]<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/people/partners/gpci/>.

^[vi]<https://www.adaptationfellows.net/mission>.

- **Transition payments for producers adopting new conservation practices.** Producers transitioning to new conservation practices may experience temporary declines in farm profitability (*e.g.*, no-till has a 5–7 year transition period), during which the ecosystem benefits of practices are also not fully realized and cannot be monetized. USDA’s organic transition payment program could be expanded to include a conservation transition payment to support producers as they make this transition. The recommendations above to streamline conservation programs, reduce barriers to entry, and lower transaction costs will also help increase the number of producers transitioning to conservation practice adoption.
- **Create crop insurance discounts or premium reductions that recognize the increased soil health and reduced agricultural risk of farms implementing conservation practices to provide financial incentives for early adopters to continue their practices.** Similar incentives for the Noninsured Crop Disaster Assistance Program (NAP), Whole Farm Revenue Program (WFRP), and Agricultural Management Assistance (AMA) Program should also be developed to ensure that non-row crop and diversified farmers can access these benefits. Designing incentives for early adopters of conservation practices to maintain the environmental benefits they have already created is critical to reward these public goods and prevent backsliding as producers adopting new practices are rewarded through private ecosystem service markets. However, not all farmers utilize crop insurance, so this strategy is not a silver bullet and must be combined with other strategies to reward early adopters for the ecosystem services they provide.
- **Clarify that all NRCS conservation practices and standards are Good Farming Practices (GFP).** Farmers who implement conservation practices and enhancements in line with NRCS standards should not find themselves in conflict with RMA rules as a result. Conservation is a key element of risk management, and RMA rules and policies should reflect this understanding. RMA and NRCS, two Farm Production and Conservation (FPAC) agencies, should coordinate so that neither issues a contradictory rule or recommendation that impacts farmers.

Two unresolved challenges are how to ensure that tenant farmers can access conservation programs and incentives, and how to design robust incentives for early adopters of conservation practices to maintain the environmental benefits they have already created. Benefits already generated by early adoption of conservation will be difficult, if not impossible, to reward through private markets. CFAD has outlined a suite of policy options for USDA and Congress to consider, including rewarding early adopters through crop insurance discounts and/or through a *USDA National Climate Bank*^[viii] (see CFAD’s Climate Bank Concept Note for more information about how this could be done). As policy conversations continue, we will stay abreast of these challenges and provide more robust recommendations and thought leadership in the future.

Conclusion

Climate change solutions must be grounded in the perspective of agricultural producers who are key to driving conservation on working lands. An exponential increase in funding for existing conservation programs is required to drive the conservation practice adoption needed in a timely, voluntary, and incentive-based way. An integrated, USDA-wide focus on climate-smart conservation practices, improved agriculture data systems, expanded technical assistance for conservation adoption, and aligned financial incentives to recognize the financial and risk-reduction benefits of conservation can help reach these goals. Furthermore, investments in measuring and monitoring the outcomes of conservation programs and practices will build the confidence that programs are delivering the public benefits they promise. Ultimately, expanding, improving, and targeting existing conservation programs can build the business case for climate-smart agricultural practices and drive the management changes needed across millions of acres of U.S. working lands.

^[viii] <https://climatefoodag.org/usda-national-climate-bank/>.

Recommendations to Strengthen USDA's Support of Research and Science for Climate-Smart Agriculture

About CFAD

AGree's *Climate, Food, and Agriculture Dialogue*¹ includes farmers, ranchers, and foresters; environmental NGOs; supply chain companies; and former government officials. We share a common view that **climate change demands ambitious and durable Federal policy solutions that are commensurate with the urgency and scale of the problem.** We see U.S. food and agriculture system as a crucial source of solutions to climate change. These solutions must provide transparency and promote affordability while distributing costs and benefits in such a way that promotes equity and value to land managers. The scientific consensus that the climate is changing at an increasingly rapid pace is incontrovertible. The timeframe for taking meaningful action to avoid catastrophic impacts is running short. Our guiding principles for Federal policy on climate change and food systems can be viewed *here*.²

Robust and targeted research and science are fundamental to U.S. food and agriculture's response to climate change and our ability to leverage the sector to provide natural climate solutions. Our food system is vulnerable to a changing climate but also has the potential to mitigate greenhouse gases through innovative natural climate solutions that build soil health, farm resilience, and deliver ecosystem services to rural and urban communities alike. We need a research enterprise that is laser focused on the challenges before us. We need a national effort on improving soil health; soil carbon sequestration research, measurement, and verification techniques; animal feeds that reduce enteric emissions; and new seed varieties including cover crops that help us sequester more carbon or are otherwise adapted to climate change. We need a strong evidence-base to underpin public and private investment. We also need economic research and behavioral studies about new practice adoption, along with continuously improving models and predictive capacity. Strong USDA investment in research will enable U.S. agriculture to harness mitigation and market opportunities and meet the challenge of a changing climate head on.

CFAD is also releasing two additional resources: a set of recommendations for investing in Federal programs to expand on-farm conservation adoption and a concept note for the development and operation of a USDA "Climate Bank," creating financial incentives for land management innovation on hundreds of millions of acres of working lands to curb the effects of climate change. These actions will promote broader adoption of agricultural conservation practices on working lands and improve farm profitability, increase resilience, reduce risk, enhance environmental performance, and sequester carbon. USDA has the opportunity to send a strong signal to farmers, ranchers, and foresters; the supply chain; and the American public that our food system is committing to climate-smart agriculture and forging a path toward net zero emissions. CFAD looks forward to working with USDA and Congress as they develop policy and programs that work for producers, the environment, and society.

Introduction

USDA is the leading funder of basic and applied agricultural research, through both intramural and competitive mechanisms. In this document, we outline priorities to enable USDA to bring climate change mitigation solutions within a broader scope of Federal and private investment in agricultural research. Research to support producers' ability to adapt to the variable conditions caused by climate change is important but is not the subject of this paper.

Federal climate change mitigation research spans multiple USDA research and extension agencies and programs, as well as other Federal agencies. Much is already known about agricultural practices and technologies that can reduce emissions or sequester carbon while contributing to soil health or other agronomic goals. Collectively, we refer to systems that use these practices and technologies as "climate-smart agriculture."

Research can improve the evidence base around climate-smart agriculture where there are still gaps, identify and inform strategies to overcome barriers to adoption

¹<http://www.climatefoodag.org/>.

²<https://climatefoodag.org/guiding-principles/>.

at scale, monitor trends in GHG emissions and sequestration on agricultural and forest lands, and align goals at the farm scale with those of ecosystems and society at larger scales. Our recommendations focus on USDA and its Federal partners as these provide the largest levers to achieve scale of mitigation. At the same time, these recommended actions will support and expand upon important work being conducted by land-grant institutions, other universities and institutes, the Foundation for Food and Agriculture Research (FFAR), commodity and grower groups, and the private-sector.

Goals and Objectives

For USDA to achieve its goal of advancing climate-smart agriculture, it must strategically align its vast research expertise and resources. A climate-smart agriculture research enterprise should be developed that coordinates economic, social, and environmental sustainability research across USDA mission areas, the U.S. Government, and non-Federal research partners and builds the research infrastructure needed to facilitate this important work.

USDA research needs to be precompetitive, scalable, and benefit all farmers, ranchers, and foresters in order to achieve near term impacts and position the diversity of U.S. agricultural systems to make ambitious and durable contributions to climate change mitigation. We recommend that USDA's research and science programs focus on a limited number of specific objectives to achieve this goal:

- I. Coordinate science and research to maximize the effectiveness and impact of public investments.
- II. Build the business case for climate-smart agricultural practices, including the case for public benefits and public investments in farmer incentive programs.
- III. Improve USDA data sharing policies and infrastructure to facilitate research conducted by trusted partners.
- IV. Support equitable engagement by diverse producers and agricultural systems.
- V. Improve the rigor of climate models and measurements to support the U.S. Greenhouse Gas Inventory and reduce risk in private environmental markets.
- VI. Create new tools and practices to expand the climate-smart agriculture toolkit.

I. Coordinate Science and Research

Coordinating USDA's climate research investments is critical to ensure that USDA funding has the greatest impact and best complements and leverages private-sector research investments.

USDA's immediate, highest priority should be to create a "Climate Research Coordinator" position to develop a coherent "all of USDA" climate research strategy across its agencies, coordinate climate research with other Federal agencies, and engage with external research stakeholders. This position could be created in the Office of Chief Scientist to work with the Secretary's USDA Climate Advisor and other climate research leads within USDA.

A Climate Research Coordinator should be tasked with preparing an inventory of USDA climate mitigation and adaptation research to better leverage existing efforts, identify gaps for future research, and avoid duplication in efforts. This inventory should include research conducted by the Office of Research, Education and Economics (ARS, ERS, NIFA, AFRI, NASS), plus the Office of Farm Production and Conservation (NRCS, RMA, FSA) and the Office for Trade and Foreign Agriculture Affairs (FAS), as well as other Federal agencies engaging in climate research including the Environmental Protection Agency, National Science Foundation, U.S. Geologic Service, Department of the Interior, Department of Energy, and USAID.

USDA should publicly release an annual report of the inventory's findings and host "state of the science" meetings to engage the research community and other stakeholders. External research stakeholders that should be engaged include historically black colleges and universities, land-grant institutions, food and agriculture technology companies, foundations, think tanks, forestry and agricultural groups, non-governmental organizations, and leading public- and private-sector researchers from the international community.

In addition to coordinating research moving forward, USDA should analyze existing research archives to mine datasets that can provide useful insights moving forward. Historic information can be used to build the evidence base for climate-smart practices and support efforts to set industry baselines for carbon sequestration. Understanding the body of agricultural research to date will sup-

port the Climate Research Coordinator in developing a cohesive and informed research agenda moving forward.

II. Build the Business Case for Climate-Smart Practices

Farmers, ranchers, and foresters will only adopt climate-smart practices at the rate needed to substantially reduce agricultural emissions once they understand the clear economic benefits of doing so. USDA-supported intramural and extramural research can play a critical role in building this business case for co-investments in climate-smart agriculture practices by individual producers while articulating the return on investment to society from public investment and supporting development of the private marketplace.

USDA should direct research assets to conduct precompetitive analysis and modeling that demonstrates the economic value associated with climate-smart agriculture practices, including by:

- Estimate the cost of implementation and return on investment for individual growers that adopt individual or stacked climate-smart practices.
- Quantify the public benefits derived from climate-smart practices, including landscape-level impacts. These could include linked benefits between working lands and built environments for flood risk reduction, water quality improvements or fire risk reduction (*e.g.*, *Iowa Watershed Approach*³ funded by HUD), as well efforts to quantify multiple benefits from existing farm programs like the Conservation Reserve Program.
- Research the longevity and durability of environmental benefits from climate-smart practices, including dynamics such as the relationship between the length of practice implementation and accrual of soil carbon, the effects of practice reversion/termination and variability across geographies and production systems.
- Study potential positive and negative impacts of current Federal policy incentives on conservation practice adoption and crop and livestock diversification, including how adjustments to the Federal crop insurance could promote conservation. This work could also consider the use of Marketing Assistance Loans for diversification of farming operations.

This research should consider impacts of climate-smart practices on the diversity of agricultural operations, including dynamics such as size, region, commodity, and level of capital that can influence profitability. Building the business case for conservation is a keystone for increasing adoption of practices and should be a priority that is expressed in research projects across the board, not segmented into siloed research projects. Most importantly, the findings must be shared with producers and other agriculture stakeholders. Technical assistance providers, particularly NRCS field offices and land-grant university extension offices, can help with disseminating information to producers that is specific to their geographic area.

III. Improve USDA Data Sharing Policies and Infrastructure

Connecting the extensive agricultural research community to USDA's vast agricultural datasets is a critical strategy to quickly and efficiently answer key research questions about the multiple benefits of climate-smart agricultural practices while building trust across the agricultural research community.

USDA should engage trusted research partners in advancing USDA research priorities by developing data sharing and research infrastructure that allows farmers and university researchers to access anonymized USDA datasets. The scale and scope of the agriculture research investments needed to meet the climate crisis can be accomplished through developing partnerships with land-grant universities, commodity groups, and others. USDA has several datasets that can be used by external researchers to relate conservation practices to farm profitability, helping to build the business case for climate-smart agriculture.

USDA data infrastructure should be modernized in a way that respects farmer data privacy and autonomy, reduces reporting burden, and communicates useful research conclusions back to producers to inform decision-making. By investing in improvements to data collection systems and streamlining data management processes, USDA can simplify the data reporting process, which is overly burdensome for many farmers and ranchers. Creating channels to clearly communicate how producer data is being used, allowing producers to opt in or out of research projects, and allowing producers that opt in to easily access their data and research results can build trust in the farmer and rancher community that

³<https://iowawatershedapproach.org/>.

their data is being used responsibly and effectively to generate knowledge that will ultimately benefit their operations.

IV. Support Equitable Engagement by Diverse Farmers, Ranchers, and Farming Systems

For the entire agricultural sector to succeed in reducing its emissions, all types of producers must be engaged. **USDA should therefore ensure that diverse farmers, ranchers, and farming systems can participate in Federal conservation programs and adopt climate-smart agricultural practices.** This is key to reaching scale of adoption in an equitable way. Strategies for supporting equitable producer engagement include:

- Partner with state Departments of Agriculture, land-grant cooperative extension offices, and NGOs to expand extension and outreach, particularly to small and disadvantaged farmers and non-operating landowners.
- Conduct engagement and extension to historically disadvantaged farmers and ranchers, drawing from examples in the Sustainable Agriculture Research and Education (SARE) program.
- Conduct social science research to identify barriers to adoption of climate-smart agriculture practices. In particular, study barriers to participation in USDA conservation incentive programs by diverse agricultural producers and producers who rent farmland. Use these findings to identify ways to adjust programs to encourage robust participation.
- Consider the impacts of climate-smart practices on the diversity of agricultural operations, including dynamics such as size, region, commodity, and level of capital that can influence profitability.
- Expand the Specialty Crop Block Grant program to include more emphasis on mitigation practices across the diversity of regional farming systems in coordination with state Departments of Agriculture.

V. Improve the Rigor of Climate Models and Measurements

USDA should improve the rigor and transparency of climate models and measurements to support the efforts of the U.S. Greenhouse Gas Inventory and private ecosystem service markets. Research and science can help ensure that Federal investments in climate-smart agriculture and forestry are backed by strong science, using both intramural and extramural research to build the evidence base around the contribution of agricultural practices to greenhouse gas emissions and carbon sequestration. A national monitoring system that addresses both field-scale and landscape-level climate impacts in particular could enhance the rigor of the measurements and models that underlie public investments and private markets. There is an opportunity to scale up soil monitoring systems now, while developing new technologies that will drive down costs in the future. **The following measures will help USDA build the foundational knowledge necessary to measure the climate impacts of agricultural systems and practices with greater rigor than current efforts can achieve:**

- Improve the modeling of greenhouse gas emissions and carbon sequestration in agricultural soils by funding and conducting research to improve baselines and account for regional variability, greater differentiation of crops and livestock, forestry systems, increased spatial resolution and sources of uncertainty.
- Establish a national soil carbon and nitrous oxide emissions monitoring network, leveraging Agricultural Research Service and Natural Resource Conservation Service research sites together with land-grant universities. Research the durability of carbon sequestration, including dynamics such as the relationship between the length of practice implementation and accrual of soil carbon, effects of practice reversion and termination.
- Integrate remote sensing tools (*e.g.*, LIDAR, satellite imagery) with Forest Inventory and Analysis (FIA) and other field plots to improve accuracy and resolution of estimates of greenhouse gas emissions and sequestration in woody biomass (including forests, trees in croplands and grasslands, and urban trees).
- Increase the frequency of the Conservation Effects Assessment Project (CEAP) and add specific climate research objectives to enhance understanding of the relationship between conservation practices, greenhouse gas emissions, and carbon sequestration.
- Develop and pilot more precise and cost-effective carbon measurement tools for agricultural soils.

- Assess and coordinate USDA, DOE and ARPA-E SMARTFARM programs to research and quantify the net greenhouse gas footprint from different biofuel feedstocks, including land use impacts and opportunities for expanded use of agricultural biomass and processing food loss and waste.
- Link the National Soil Web Survey and the National Resources Inventory to better leverage these tools for monitoring changes in soil carbon storage.

VI. Expand the Climate-Smart Ag Toolkit

USDA should expand knowledge of climate-smart agricultural practices and develop new practices to accelerate climate change mitigation progress across the full diversity of U.S. production systems. There is a strong body of existing knowledge about the benefits of common conservation practices in major row cropping systems (*e.g.*, cover cropping and no-till) that can be leveraged to expand adoption of some practices today, recognizing variations in efficacy across different geographies and production systems. However, there is also a need to develop new strategies and practices, particularly for other crops; new crop varieties that are both more resilient to climate change and have a smaller GHG footprint; more tools for the major sources of emissions from livestock and nitrogen application; bioenergy from crop, food processing and livestock waste management; and on-farm energy use. Tools that work with the constraints and economics of smaller operations should be considered.

Some research initiatives to expand the climate-smart agriculture toolkit may fit within existing intramural and extramural research initiatives, such as within the Agricultural Research Service (ARS), NIFA's Agriculture Food Research Initiative (AFRI), or through partnership with the Foundation for Food and Ag Research (FFAR). Options that carry too much risk or lack sufficient commercial applications for existing research initiatives to take on may be prioritized by the Agriculture Advanced Research and Development Authority (AGARDA), as soon as that new authority receives Congressional appropriations and has a leader nominated by the Administration. All of these Federal research initiatives should coordinate with ongoing private-sector efforts to develop innovative agriculture technologies so as to complement rather than duplicate those efforts.

The following recommendations are designed to help USDA fill existing practice and knowledge gaps to facilitate broader practice adoption among U.S. producers.

- Invest in research and development in crop breeding for deep-rooted or perennialized analogues to current commodity crops that would sequester more carbon in root systems.
- Research, validate, and pilot commercial technologies, such as nitrogen inhibitors, soil carbon measurement tools and livestock feed additives, to inform food and ag sector decision-making.
- Conduct research into new ways to reduce emissions from nitrogen fertilizers, enteric fermentation, and manure management.
- Invest in improving tools and practices for diverse farming operations, such as farms that grow multiple crops and integrated crop-livestock systems.
- Research embedded energy in irrigation and other farm management as a basis for considering expansion of incentives for on-farm energy use, including replacement of less energy efficient farming equipment.
- Review opportunities for utilization of agricultural biomass and food processing waste streams, including bioenergy production and pyrolysis to create biochar.
- Audit the state of the science on climate impacts of various livestock and grazing practices and determine which are most likely to reduce risks and contribute to climate change mitigation.
- Advance options for carbon sequestration and emission reductions through aquaculture, including emerging opportunities such as kelp farming.
- Research plant genomics to identify varieties or specific genes that could be enhanced to provide benefits for climate change mitigation or resilience.

Conclusion

Climate change solutions must be supported by research and science. The solutions must be inclusive of the diverse interests that make up our food and agriculture system, which can be both a contributor and a solution to climate change. Coordinating the science and research to maximize effectiveness and the impact of public investments is imperative. If we can use our research enterprise to build a data-driven business case for climate-smart agricultural practices, we can create appropriate incentives and adoption to drive the management changes we need to see across U.S. working lands.

The AGree platform includes the AGree Economic and Environmental Risk Coalition (AGree E2 Coalition) and the AGree Climate, Food, and Ag Dialogue (CFAD).

The AGree Economic and Environmental Risk Coalition advocates for Federal policy improvements to bridge the gap between the adoption of on-farm conservation practices and improved profitability for farmers and ranchers. Through collaboration and frank discussion, our work on crop insurance, agriculture data access, cover crops, and banking and finance is advancing the agricultural sector's movement toward a more resilient, profitable, and sustainable American agricultural system. Visit *FoodandAgPolicy.org* to learn more and join our effort to transform Federal food and agriculture policy to meet the challenges of the future.

The AGree Climate, Food, and Ag Dialogue (CFAD) is a diverse and pragmatic group of climate, food, former government officials, and agriculture leaders working to promote Federal action on climate that is inclusive of food and agriculture. CFAD includes producers, food and agriculture companies, former government officials, and civil society organizations working together to promote Federal action on climate change that is commensurate with the urgency and scale of the climate crisis. Visit *ClimateFoodAg.org* to learn more about our work and read our guiding principles for Federal climate policy solutions.

The CHAIRMAN. Thank you, Ms. Duncanson.

And now, Senator Heitkamp, welcome. Please begin when you are ready.

STATEMENT OF HON. HEIDI HEITKAMP, CO-CHAIR, FARM AND FOREST CARBON SOLUTIONS TASK FORCE, BIPARTISAN POLICY CENTER, WASHINGTON, D.C.

Ms. HEITKAMP. Thank you so much, Chairman Scott, and thank you to the Ranking Member Thompson for letting me speak on behalf of the great work of the Bipartisan Policy Center, and my great friend and co-chair for this effort, Senator Saxby Chambliss, who I know will share my comments and urge you all to become familiar with the work that we have done.

I want to maybe just start out by adding to some of the comments that you have already heard from the Ranking Member and from the Chairman as we move into this next couple months. We have been spending a lot of time talking about how energy security is now national security, but we will be now talking about how food security is national security and global security for our democracy. And so, this is going to challenge not only our energy supply chain, but also our food supply chain. And that is why a discussion like this on how we can increase productivity, how we can reduce the costs of inputs is so critical. And I think a lot of the work that is being done right now by all the groups that you are hearing from is really geared towards making farmers more profitable, more able to sell into the global market.

I want to just talk a little bit about our process. We started out, Saxby and I did, by saying boy, have things changed. When we were in the Senate, if you had talked about climate and farmers and rural America in the same sentence, you might have been drug out of the room. The attitudes of rural America and farmers have really changed as they have seen the consequences of climate, but also as they see the opportunity of growing for, and selling to, a global market and what that means. And so, we were very convinced that the time was right for us to begin this process.

I want to just report what a soybean farmer said to me in North Dakota when I asked him about climate. He said, “I expect that we are going to have to be able to prove sustainability and climate sensitivity for the commodities that we sell into the global market in the future. Let’s get going.”

The next step that we took was evaluating where we are, and I really have to give a shoutout to the great staff at BPC. They did a great job in evaluating what that looks like. Second, I want to reiterate kind of the goals. Do no harm. Let’s keep the programs that are working, working for us. Make it economically important and viable to adapt some of these challenges, and let’s make sure that we don’t leave behind something that hasn’t been said here. The early adopters—I am always sensitive to people who, I have been doing this for a long time, where is my benefit? You are trying to promote change in others. Do I get a benefit from change? And so, we basically came up with a list of when you look at it, six themes.

I want to focus on two because I don’t have a lot of time left. The first one is workforce. You have all the data in the world, but if you don’t have somebody ready to engage with farmers and ranchers on the ground, in the field telling them look what your neighbor did over here. How are we going to help you understand how these programs work? And so, you can design all these programs. You can have all the pilot programs in the world, but if you don’t have an implementation strategy for those programs, this won’t work. And so, that is why it is so important that we educate that next generation of farmers.

The second thing I want to highlight is carbon markets. And I know that hasn’t always been a subject of consensus on your Committee, but I want to just relay some of the things that we heard. People who are going to buy into carbon markets, they want certainty. They want to know that they are not buying something that just simply is—I wouldn’t say junk, but they aren’t—they are buying something that actually has a climate impact. They have reputational risks if they don’t, and as they talk about their own kind of carbon sensitivity, they want to make sure that they are getting the bang for the buck and the environment is getting the bang for the buck. And so, that is why a lot of the research and a lot of the work that is being done by the Committee to kind of evaluate how do we give it the *Good Housekeeping Seal of Approval*, if I can use those words, and I know that Secretary of Agriculture is very engaged, and certainly the Growing Climate Solutions Act would task the Secretary with that. I think it is important that that work is started as soon as possible, because that is where we are going to see a huge benefit, economic benefit for our ag producers.

Thank you, Mr. Chairman. I look forward to the questions and answers.

[The prepared statement of Ms. Heitkamp follows:]

PREPARED STATEMENT OF HON. HEIDI HEITKAMP, CO-CHAIR, FARM AND FOREST CARBON SOLUTIONS TASK FORCE, BIPARTISAN POLICY CENTER, WASHINGTON, D.C.

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for convening this hearing: ***A 2022 Review of the Farm Bill: The Role***

of USDA Programs in Addressing Climate Change. I am joining you today in my capacity as co-chair, alongside former Senator Saxby Chambliss, of the Bipartisan Policy Center’s Farm & Forest Carbon Solutions Task Force. I appreciate the opportunity to share the views of the Task Force on the important linkages between conservation, climate solutions, and rural economic development. My testimony today focuses on the roadmap we developed for scaling public and private investments in land-based climate solutions, ensuring a high level of integrity for these solutions, and reducing barriers to voluntary stewardship practices.

For this hearing, I’d like to emphasize four key points:

1. Natural climate solutions have untapped potential in the United States. Congress and the Administration can help us tap this potential by catalyzing new carbon-based revenue opportunities for farmers, ranchers, and forest landowners.
2. Priority should be given to expanding incentives and cost-share programs for natural climate solutions, promoting new investments in workforce training and education, delivering climate-focused technical assistance, improving data and risk management, and spurring technology innovation to make natural climate solutions cheaper and easier to implement.
3. Both government and the private-sector need to step up their efforts and partner together to achieve large-scale transformation.
4. If enacted, our proposed policies will speed the deployment of natural climate solutions, deliver significant environmental co-benefits (improved air and water quality, wildlife habitat, *etc.*), and boost the economy of rural communities.

In sum, we believe American farmers, ranchers, and forest landowners have a unique opportunity, with your help, to build on a long and bipartisan history of environmental stewardship to further support—and be rewarded for—broader climate mitigation efforts.

1. Introduction

America’s farmers, ranchers, and forest landowners are key partners in the effort to combat climate change—both as business operators who are uniquely exposed to the damaging effects of extreme weather and as stewards of lands that play an important role in the carbon cycle. Studies show that boosting the amount of carbon stored in plants, trees, and soils can make an important contribution to slowing the buildup of carbon dioxide in the atmosphere, and will be needed, along with emission reductions and other strategies, to meet national and international climate goals. In fact, climate-friendly land management practices—often called “natural climate solutions”—are especially attractive, because many of them deliver valuable co-benefits in terms of wildlife habitat, recreation amenities, and air and water quality. Such practices can also make farms, forests, and rangelands more resilient to the damaging effects of climate change.

In this context, emerging markets for carbon credits, new corporate sustainability initiatives, and government incentives for conservation and greenhouse gas reductions present a substantial economic and environmental opportunity—one with the potential to generate billions of dollars of investment in working farm and forest lands. To fully realize this opportunity, however, substantial hurdles will have to be overcome. Markets for carbon credits and government incentive programs are still not fully mature, and few farmers, ranchers, and forest landowners are accustomed to viewing carbon sequestration and avoided emissions as a business opportunity. Even those who do may lack the time, expertise, and financial resources to assess their options for carbon markets or incentive programs and then implement changes in their land management practices, particularly if those changes require large up-front investments in expectation of uncertain long-term returns.

BPC’s Farm and Forest Carbon Solutions Task Force came together in early 2021 to explore practical ideas for tackling these challenges. Task force members represent a wide range of interests and perspectives, but we share the view that constructive engagement with the agriculture and forestry sectors is crucial to the success of broader U.S. climate policy.

My testimony today begins by discussing our broad coalition to scale natural climate solutions and our unique, bipartisan approach to developing consensus policy recommendations. I’ll then summarize key Task Force recommendations for new investments and strategic changes at USDA that would enable more farmers and forest landowners to engage in climate solutions without replacing core farm bill programs.

2. Task Force Background and Focus Areas

Co-chair Chambliss and I worked with 18 fellow Task Force members,^[1] including leaders from agriculture and forestry industries; environmental and conservation nonprofits; trade associations; and former government officials. Together our group combined wide-ranging expertise on key policy issues and included the perspectives of small and large agricultural operations; small and large landowners, timber companies, forest products groups, urban forestry, and public lands; center-left and center-right environmental, conservation, and hunting and fishing organizations; rural communities; and historically underserved groups—Native American Tribes, African Americans, and women producers. Task Force members also command deep knowledge about how government programs are effectively funded, overseen, and implemented, and leverage strong relationships across stakeholder communities.

In developing recommendations, we were guided by four principles that we believe are critical to the effectiveness of farm- and forest-based climate strategies and that build on our nation's track record of effective public-private cooperation in the forestry and agricultural sectors. These principles include:

- Emphasizing voluntary and incentive-based approaches,
- Finding solutions that are supportive of the needs of farm and forest producers and landowners,
- Promoting partnership and collaboration as the best way to address diverse constraints and priorities, and
- Providing for accountability and transparency in the methods used to track and quantify benefits from natural climate solutions.

With the benefit of insights and ideas generated over the course of multiple workshops and meetings and input from a panel of scientific and technical experts, our group reached agreement on 24 policy recommendations that were published in a report last month.¹ The breadth of our recommendations reflects the range of actions we believe are necessary to realize the full potential of farm- and forest-based climate solutions. Several broad themes provide a framework for organizing our recommendations and implementing a comprehensive policy approach:

1. Increase investment in natural climate solutions through existing farm bill programs and offer pathways to new market opportunities for farmers, ranchers, and forest landowners.
2. Expand technical assistance for implementing natural climate solutions and address related workforce needs.
3. Strengthen the integrity of voluntary carbon markets and increase access to these markets.
4. Develop new public and private financial and insurance instruments that address barriers to the broad adoption of natural climate solutions.
5. Enhance resilience to wildfire, drought, insects and disease, and invasive species on a landscape scale.
6. Foster technology innovation in the agriculture and forestry sectors to make natural carbon solutions cheaper and easier to implement and to address measurement and monitoring challenges.

The next section of this testimony summarizes key task force recommendations that relate to USDA programs and authorities under the jurisdiction of this Committee.

3. Build on the Foundation of Existing Farm Bill Programs

The Task Force acknowledged the value of existing farm bill programs by designing many of our recommendations to build from, address gaps in, or complement these programs. There is a strong bipartisan history of including provisions in the farm bill that support conservation, and many of these programs have become very popular with producers. Moreover, there are efficiencies to be gained in using existing programmatic infrastructure and resources. We see the upcoming 2023 Farm Bill as a key opportunity to authorize and implement strategic changes at USDA that enable more farmers and forest landowners to engage in climate solutions without replacing core farm bill programs. Our subset of recommendations for improving USDA programs primarily relate to opportunities within the following farm bill titles:

^[1] <https://bipartisanpolicy.org/carbon-solutions-task-force/>.

¹ Available at: <https://bipartisanpolicy.org/report/federal-policies-to-advance-natural-climate-solutions>.

- Title [II]: Conservation.
- Title [VII]: Research, Extension, and Related Matters.
- Title [VIII]: Forestry.
- Title [XII]: Miscellaneous (Support for beginning, socially disadvantaged, and veteran farmers and ranchers).

In addition, we offer a number of recommendations that could be enacted through legislative vehicles other than the farm bill— including, for example, through the Growing Climate Solutions Act, Rural Forest Markets Act, Trillion Trees Act, and the annual appropriations process. For a comprehensive look at all Task Force recommendations, please refer to our full report available at: <https://bipartisanpolicy.org/report/federal-policies-to-advance-natural-climate-solutions>. I have included the executive summary as an appendix to this testimony.

A. Conservation Incentives

We recommend that Congress substantially increase USDA funding for key conservation cost-share and incentive programs under Title [II] of the farm bill, dedicating these funds specifically for greenhouse gas reductions and carbon sequestration purposes (Task Force report recommendation 1A). The Task Force is aligned with more than 200 agriculture and conservation organizations that expressed support last summer for doubling farm bill conservation program funding²—so that private working lands can both take advantage of new carbon-based revenue opportunities and help lead the fight against climate change. The Bipartisan Policy Center assessed the employment and economic effects of investing in farm- and forest-based climate solutions on America’s public and working lands, finding that new Federal funding could support up to 22,000 jobs per year and contribute up to \$2.2 billion per year to U.S. gross domestic product.³

USDA programs with the greatest potential to achieve positive climate and economic outcomes in the land sector include but are not limited to the Environment Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), the Regional Conservation Partnership Program (RCP), the Landscape Scale Restoration (LSR) program, the Farming Systems Project (FSP), and the Conservation Technical Assistance (CTA) program. We recommend establishing climate-focused program metrics and benchmarks to evaluate program effectiveness (Task Force report recommendation 1B).

Many of these programs are implemented by USDA’s Natural Resources Conservation Service (NRCS). Other task force recommendations aimed specifically at NRCS include streamlining the NRCS process for adopting new conservation practice standards (Task Force report recommendation 1D), expanding existing measurement networks like the National Resources Inventory to better integrate climate and carbon-related data (recommendation 1E), and expanding the NRCS network of technical service providers through more innovative partnerships (recommendation 2C). Congress could also authorize the NRCS to be a lead agency in establishing a process for farmers, ranchers, and forest landowners to receive a one-time payment for early adoption of climate-smart practices (recommendation 4D), and in establishing a new, interagency cross-boundary rangeland health initiative (recommendation 5C).

B. Technical Assistance and Workforce Development

Our recommendations call for expanding Federal technical assistance to achieve greater and more effective uptake of climate-friendly practices and to promote more informed decision making that maximizes economic and environmental co-benefits and ensures long-term sustainability. Investments in workforce development are also vital to support the next generation of farmers, ranchers, and foresters. Although some relevant workforce development programs and many core technical assistance programs that support Title [II] implementation are authorized in legislation other than the farm bill, our recommendations identify several opportunities related to Titles [VII] and [XII].

These include expanding private-sector partnerships with the Cooperative Extension program for climate-targeted technical assistance (Task Force report recommendation 2A) and providing tailored technical assistance (similar to the Farm-

²Letter: 216 Groups Call for Double Agriculture Conservation Funding. Available at: <https://www.nwf.org/-/media/Documents/PDFs/Press-Releases/2021/08-04-21-Letter-216-Groups-Call-for-Double-Ag-Cons-Funding>.

³Investments modeled include wildland firefighting, Federal forest thinning and replanting, tree planting on marginal lands, cover cropping, grassland restoration, and anaerobic digesters. For more information go to: <https://bipartisanpolicy.org/ncs-resources>.

ing Opportunities Training and Outreach Program authorized in the 2018 Farm Bill) to encourage Tribes and historically underrepresented producers and landowners to adopt climate-friendly practices (recommendation 2B). We also recommend new investments in education and workforce development through extension, national service corps programs like AmeriCorps, Tribal colleges and universities, and historically Black land-grant universities (recommendation 2D).

C. Land Access

Just as a strong workforce is necessary to scale natural climate solutions, preventing the conversion of productive working lands and increasing access to land is a critical and underappreciated climate strategy. Therefore, we urge Congress to assess and develop new incentives—such as cost-shares, state block grants, and tax reform—to improve land access, tenure, and leasing, especially for new, small, and historically underserved landowners and producers, and owners of heirs' property and fractioned Tribal lands (Task Force report recommendation 4C). New Federal incentives could help address the major financial, social, and legal obstacles that limit secure access to affordable farmland.

D. Improving Data Tools and Strengthening Emerging Carbon Markets

We recommend that USDA strengthen its data, modeling, and technical/decision support tools to provide farmers, ranchers, and forest landowners with accurate estimates of the impacts of climate-smart practices (Task Force report recommendation 2F). These tools include, but are not limited to, COMET-Farm, COMET-Planner, LandPKS, DairyGEM, GRACEnet, APEX, Rangeland Analysis Platform, CART, and the Forest Inventory and Analysis program. More reliable models and improvements in other predictive tools are needed to improve integrity and transparency in voluntary carbon markets and to reduce the administrative and technical burdens faced by potential participants in Federal conservation programs, supply chain sustainability programs, and voluntary carbon markets.

The costs of monitoring, reporting, and verifying climate benefits can be prohibitive for small producers and forest landowners seeking to participate in voluntary carbon markets. Similarly, a lack of clarity, transparency, and standardization among credit buyers, project developers, and landowners can be a barrier to quality assurance for farm- and forest-based carbon credits. Currently, however, there are no government programs that seek to address these issues. Task Force members believe the private-sector must step up, in concert with targeted public investments, to address problems with transparency and liquidity, incomplete risk management mechanisms, and inadequate financing that are making it difficult for supply to respond to market demand. We therefore recommend that Congress authorize new efforts to improve market integrity and new funding to reduce barriers to entry to emerging carbon markets (Task Force report recommendation 3A). We also call on USDA, in collaboration with other Federal agencies, to advance public-private partnerships for enhancing trading infrastructure and developing insurance and structured finance products for voluntary carbon markets (recommendation 3C).

E. Forestry

The Infrastructure Investment and Jobs Act of 2021 allocates historic levels of funding—over \$6 billion—for forest restoration, hazardous fuels management, and wood products innovation, among other provisions that support natural climate solutions. Accordingly, our recommendations include a strong focus on policy implementation, including through Title [VIII] Forestry programs, so that this and other recommended funding can be deployed quickly and effectively.

Task Force members believe the time is now to build on these critical investments to enhance the resilience of our natural and working lands in the face of increasing threats from wildfires, droughts, floods, and other extreme weather, as well as threats from pests and invasive species. This includes providing needed resources to the USDA Forest Service and Department of Interior, not only for wildland fire-fighting, but for prevention strategies like thinning, prescribed burns, training, fire detection via remote sensing, and prediction using high performance computing. An all-of-government approach to wildfire resilience is essential (Task Force report recommendation 5B).

We also recommend pursuing a comprehensive strategy to modernize, expand, and fund the network of public and private seed collections and tree nurseries (recommendation 5A). Current estimates suggest that rapidly expanding reforestation demand, partly due to wildfire trends, will require more than doubling tree nurseries' current output, from roughly 1.3 billion seedlings per year to 3 billion.

F. Research

Innovation in agriculture and forestry is critical to meet the evolving economic and environmental demands on these sectors. Thus, we enthusiastically support R&D investments that will make natural climate solutions less expensive and easier to implement (Task Force report recommendation 6A). Innovation is also required to improve the tools available to monitor, quantify, and verify environmental and climate benefits and reduce related costs.

To meet these needs, we believe USDA must emulate the more integrated research, development and commercialization approach that exists in the DOE National Labs. Consistent with Title [VII], the Task Force strongly supports increased funding across the USDA enterprise, including for the Foundation for Food and Agriculture Research. We also call for increased cooperation to promote innovation in natural climate solutions—across Federal agencies (especially DOE/ARPA-E, NIST, USGS, and NSF), universities, and the private-sector. Enhancing the innovation pipeline, from research and development to broad commercialization of new technologies, is critical to scaling farm- and forest-based climate solutions.

4. Conclusion

The bipartisan infrastructure bill will provide critical resources for implementing natural climate solutions, particularly in the forestry sector. But the levels of funding authorized in that legislation, while historic, represent just a down-payment on the investments that will be needed to meet the diverse needs of producers and land managers in the decades ahead. Looking toward the next farm bill, we see a strong opportunity and widespread support for a suite of policies to increase access to Federal Government programs and private market opportunities for producers and landowners of all types and sizes, and across the whole natural climate solutions supply chain. We strongly believe this can be accomplished without taking away from core farm bill programs and instead drawing on policymakers' decades of experience supporting and implementing voluntary and incentive-driven conservation solutions for America's farmers, ranchers, and forest landowners.

The 24 recommendations put forth in our full Task Force report reflect confidence that the Federal Government—and USDA in particular—can be effective in catalyzing the rapid scale-up of farm- and forest-based carbon solutions. Beyond helping us meet climate goals, these solutions will stimulate investment in rural communities and bolster the long-term resilience and productivity of America's public and working lands. With the bipartisan support that exists for all these objectives, progress is not only possible, but very much within reach. Co-chair Chambliss, members of the Task Force, and I look forward to a productive dialogue and partnership with Congress to inform your work positioning America's farmers, ranchers, and forest landowners to continue to deliver climate solutions.

APPENDIX A: EXECUTIVE SUMMARY OF THE BPC FARM AND FOREST CARBON SOLUTIONS TASK FORCE POLICY RECOMMENDATIONS

BPC Farm and Forest Carbon Solutions Task Force Policy Recommendations

Executive Summary

America's farmers, ranchers, and forest landowners are key partners in the effort to combat climate change—both as business operators who are uniquely exposed to the damaging effects of extreme weather and as stewards of lands that play an important role in the carbon cycle. Studies show that boosting the amount of carbon stored in plants, trees, and soils can make an important contribution to slowing the buildup of carbon dioxide in the atmosphere, and will be needed, along with emission reductions and other strategies, to meet national and international climate goals. In fact, climate-friendly land management practices—often called “natural climate solutions”—are especially attractive, because many of them deliver valuable co-benefits in terms of wildlife habitat, recreation amenities, and air and water quality. Such practices can also make farms, forests, and rangelands more resilient to the damaging effects of climate change.

In this context, emerging markets for carbon credits, new corporate sustainability initiatives, and government incentives for conservation and greenhouse gas reductions present a substantial economic and environmental opportunity—one with the potential to generate billions of dollars of investment in working farm and forest lands. To fully realize this opportunity, however, formidable hurdles will have to be overcome. Markets for carbon credits are still not fully mature, and few farmers, ranchers, and forest landowners are accustomed to viewing carbon sequestration and avoided emissions as a business opportunity. Even those who do may lack the

time, expertise, and financial resources to assess their options for carbon markets or incentive programs and then implement changes in their land management practices, particularly if those changes require large up-front investments in expectation of uncertain long-term returns.



BPC's Farm and Forest Carbon Solutions Task Force came together in early 2021 to explore practical ideas for tackling these challenges. Task force members represent a wide range of interests and perspectives, but we share the view that constructive engagement with the agriculture and forestry sectors is crucial to the success of broader U.S. climate policy. Over the course of multiple workshops and meetings, and with input from a panel of scientific and technical experts, we sought to develop proposals that reflect four guiding principles, including the importance of:











- Emphasizing voluntary and incentive-based approaches,
- Finding solutions that are supportive of the needs of farm and forest producers and landowners,
- Promoting partnership and collaboration as the best way to address diverse constraints and priorities, and
- Providing for accountability and transparency in the methods used to track and quantify benefits from natural climate solutions.

To organize our recommendations and ensure that our approach to farm- and forest-based climate solutions is comprehensive, we also identified six distinct policy objectives, or “themes”:













1. Expand existing farm bill programs that deliver climate benefits and offer pathways to new market opportunities for farmers, ranchers, and forest landowners.
2. Expand technical assistance for implementing natural climate solutions and address related workforce needs.
3. Strengthen the integrity of voluntary carbon markets and increase access to these markets.
4. Develop new public and private finance and insurance instruments to help overcome barriers to the broad adoption of natural climate solutions.
5. Enhance resilience to wildfire, drought, insects and disease, and invasive species on a landscape scale.
6. Foster technology innovation in the agriculture and forestry sectors to make natural climate solutions cheaper and easier to implement and to address measurement and monitoring challenges.

Our recommendations in each of these areas are summarized below and detailed in our full report. Many of these ideas build on legislation already passed by the 117th Congress, including the Infrastructure Investment and Jobs Act, and on policy debates that are informing the development of the 2023 Farm Bill. Together, these 24 recommendations reinforce our view that the Federal Government has a tremendous opportunity over the next several years to put in place policies and programs that will jump-start the rapid scale-up of farm- and forest-based carbon solutions. Given growing bipartisan support for such solutions—not only as another tool for achieving climate goals, but as a means for spurring investment in rural communities and in the long-term resilience and productivity of America's farms, rangelands, and forests—we are confident that progress is not only possible, but very much within reach.







Theme 1: Expand existing conservation programs

-   Increase funding for key USDA conservation programs.
-   Set benchmarks and goals for tracking the adoption of climate-friendly practices and quantifying their benefits.
-   Issue guidance on how existing USDA programs can assist landowners who are interested in accessing carbon markets.
-   Streamline the process of setting new standards for conservation practices.
-   Expand USDA's measurement networks to better integrate climate-related data.









Theme 2: Address technical support and workforce needs

-   Recruit private-sector partners to work with USDA and Extension offices to provide training and information on climate-smart practices.
-   Set goals and benchmarks for helping historically underrepresented landowners implement natural climate solutions.
-   Expand technical assistance on climate issues and opportunities to socially disadvantaged and Tribal producers and landowners.
-   Invest in education and workforce development, including through extension and scholarship programs.
-   Enhance the collection, sharing, and interoperability of climate-related data by USDA and other agencies.
-   Strengthen USDA's technical capacities by investing in state-of-the-art datasets, models, and analytical tools.



Theme 3: Strengthen voluntary carbon markets



-   Improve the integrity of voluntary carbon markets and reduce barriers to entry through targeted legislation.
-   Use the Commodity Credit Corporation to support climate-smart practices, leveraging carbon markets and supply chain initiatives.
-   Support public-private efforts to develop infrastructure, insurance, and structured finance products for carbon trading.



Theme 4: Develop new finance and insurance instruments

-   Adopt a tax credit to incentivize ecologically appropriate agriculture- and forest-based sequestration.
-   Assess impact of conservation practices on crop yields and insurance payouts, and create incentives for reducing climate risk.
-   Develop new strategies for overcoming barriers related to landownership and succession.
-   Provide a one-time payment to early adopters of climate-smart agriculture and forestry practices.



Theme 5: Enhance carbon storage and climate resilience of farm and forest lands



-   Modernize and expand public and private seed collections and tree nurseries to meet reforestation demand and support scale-up of natural climate solutions.



  Implement an all-of-government approach to increase wildfire resilience.

  Create a new cross-boundary initiative to improve the health and carbon sequestration potential of rangelands.

Theme 6: Foster farm- and forest-based climate innovation

  Increase funding for USDA research and expand R&D collaboration across Federal agencies, universities, and the private-sector.

  Expedite FDA approval of safe feed additives that reduce greenhouse gas emissions from livestock operations.

  Support emerging markets for innovative wood products through better integration of USDA programs, Federal procurement, and manufacturer incentives.



BPC Farm & Forest Carbon Solutions Task Force

SAXBY CHAMBLISS (Co-Chair), Former Senator, Georgia
HEIDI HEITKAMP (Co-Chair), Former Senator, North Dakota
CORNELIUS BLANDING, Federation of Southern Cooperatives, *Executive Director*
JAD DALEY, American Forests, *President & CEO*
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ARA ERICKSON, Weyerhaeuser, *Vice President, Corporate Sustainability*
WHIT FOSBURGH, Theodore Roosevelt Conservation Partnership, *President & CEO*
DAN GLICKMAN, Former U.S. Secretary of Agriculture; BPC *Senior Fellow*
KRYSTA HARDEN, U.S. Dairy Export Council, *President & CEO*
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TOM MARTIN/RITA HITE, American Forest Foundation, *President & CEO* (former and successor)
BEN MOSELY, USA Rice, *Vice President, Government Affairs*
COLLIN O'MARA, National Wildlife Federation, *President & CEO*
LAURA WOOD PETERSON, LWP Consulting, *President; Ranch Operator*; Indigo Ag, *Advisor*
TOM SCHULTZ, Idaho Forest Group, *Director of Resource & Government Affairs*
BRIAN THALMANN, Grower; Minnesota/National Corn Growers Association, *Board Member*
BRYAN VAN STIPPEN, National Indian Carbon Coalition, *Program Director*

Read the report at bipartisanpolicy.org/energy

The CHAIRMAN. Thank you very much, Senator Heitkamp. And now, Ms. Raygoza, please begin when you are ready.

STATEMENT OF SHAKERA RAYGOZA, OWNER, TERRA PRETA FARM; CFAP2 TECHNICAL ASSISTANT, NATIONAL YOUNG FARMERS COALITION, EDINBURG, TX

Ms. RAYGOZA. Thank you to the Honorable David Scott and Glenn "G.T." Thompson for holding this important hearing. I appreciate the opportunity to share my story.

My name is Shakera Raygoza, and I, alongside my husband, am the owner and operator of Terra Preta Farm in Edinburg, Texas. We grow certified organic vegetables with 15 acres in wholesale production, and 1 acre in production for local farmers' markets and community-supported agriculture. I work as the farm sales manager and with the National Young Farmers Coalition, providing technical assistance to young Black, indigenous, and people of color farmers applying for USDA Farm Service Agency loans. Because I

have benefitted so much from USDA programs, I want to help other farmers to gain access to those programs.

When we first started farming in 2009, my husband had a bachelor's degree in agriculture, and I was a certified nurse with no farming experience. We began farming by borrowing a small tract of land from our neighbor. Growing our farm business was challenging because we had to relocate 3 years in a row due to our leases being terminated because the owners were expanding into the land for development, or they were offered more by other growers.

Farm Service Agency ownership loans helped us purchase our own land, and we directly benefitted from FSA operating microloans. We have also benefitted from the Natural Resources Conservation Service Environmental Quality Incentives Program, funding for high tunnels, cover cropping, land leveling, and irrigation systems.

Throughout our time farming, I have noticed how climate change has affected and changed our work. Living in the Rio Grande Valley, hurricanes and heavy flooding have hit our area three times in a row from 2018 to 2020. The most recent, Hurricane Hannah, hit in July of 2020, dumping more than 9" of rain in the area in just 2 days. The floods damaged our cover crops, causing \$4,000 in losses. And even though we usually have mild winters, we have had many extreme cold days recently. Last winter during Winter Storm Uri, we experienced a hard freeze and lost $\frac{1}{3}$ of our crops. These losses totaled \$60,000, more than $\frac{1}{2}$ of our annual revenue. I am currently still trying to navigate the Non-Insured Crop Disaster Assistance Program to get help for those losses. Fortunately—or unfortunately, communication between the local office has been painfully slow, and the USDA staff are not sure how to help a small-scale diversified farmer like myself.

To support the future of agriculture, USDA must improve staff training and increase the number of USDA staff specifically dedicated to small and beginning farmers and outreach. Crop insurance is too expensive, and disaster relief programs are not accessible to small and diversified farms.

We want to do more to mitigate climate change on our farm, including on-farm renewable energy, drip tape for water conservation, and biochar for sequestering carbon. We would benefit from programs that will provide funding up-front for conservation, without placing the burden of financing onto the farmers who may not have access to credit.

When I have applied for the programs with USDA, I found the process is long and requires a lot of paperwork. We almost lost out on purchasing our farmland due to a lengthy process. Loans are designed for commodity farmers who grow one or two crops. Figuring out how to convert our production of over 40 crops to yields per acre and present proof of our market prices requires a lot of time that we just don't have as owner-operators with off-farm jobs.

Many farmers I talk with about CFAP2 appreciated the streamlined process and broad range of eligible crops. Young farmers would benefit from streamlined applications for diversified farms.

When I first started farming, there were many local producers who sold at my farmers' market. Ten years later, only one or two

of those original farmers are still farming. Young farmers are the future of agriculture, but we need the support from USDA in order to continue sustainably growing food for our communities while dealing with the changing climate. We as farmers have the unique ability to sequester carbon in the soil by using climate-smart methods but lack the capital, access to credit, and land to expand our climate action. USDA must focus on expanding programs and supporting farmers like me who build our businesses for resilience and are already invested in this work. Investments like this are critical for the future of our rural communities, feeding our families, and helping the next generation of farmers to be at the forefront of climate action.

Thank you.

[The prepared statement of Ms. Raygoza follows:]

PREPARED STATEMENT OF SHAKERA RAYGOZA, OWNER, TERRA PRETA FARM; CFAP2
TECHNICAL ASSISTANT, NATIONAL YOUNG FARMERS COALITION, EDINBURG, TX

Thank you to the Honorable David Scott and Glenn ‘GT’ Thompson for holding this important hearing. I appreciate the opportunity to share my story. My name is Shakera Raygoza, and I, alongside my husband, am the owner-operator of Terra Preta Farm in Edinburg, Texas. I am also the local market manager and the wholesale sales manager on the farm, overseeing processing and packing, bookkeeping, and marketing. We are currently farming on 15 acres in wholesale production, with 1 acre in small-scale production for local farmers markets, and a community supported agriculture (CSA) program. I work with the National Young Farmers Coalition (Young Farmers) providing technical assistance to young Black, Indigenous, and People of Color (BIPOC) farmers applying for USDA Farm Service Agency loans and previously the Coronavirus Food Assistance Program 2 (CFAP2). Because I have benefited so much from USDA programs, I want to help other farmers gain access to those programs.

When we first started farming in 2009, my husband had a bachelor’s degree in agriculture and I was a registered nurse with no farming experience. We began farming by borrowing a small tract of land from our neighbor to grow food for our young family, and then started selling the surplus produce at local farmers markets. It was a challenge to grow our farm business because we had to relocate 3 years in a row due to our leases being terminated because the owners were expanding into the land for development or they were being offered more from other growers to rent. In each location, we would invest in the soil by adding compost and organic matter to the soil but we were hesitant to implement more climate-smart practices without secure land access. By 2012, we had a steady stream of customers at the farmers markets and 15 CSA members, so we decided to purchase our own land with an FSA Farm Ownership Loan. For the past 8 years we have been growing Certified Organic vegetables for our local community through farmers markets and a CSA veggie box program, and for the past 3 years we have added wholesale accounts in the regional wholesale market, including a major grocery chain in Texas. We’ve directly benefited from FSA Farm Ownership Loans and Farm Operating Microloans, and the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) funding for high tunnels, cover cropping, land leveling, and irrigation systems with ponds. We also were recipients of the State of Texas Young Farmer Grants and CFAP1 and CFAP2.

Throughout our time farming, I’ve noticed how climate change has affected and changed our work. Living in the Rio Grande Valley, we’ve been hit hard by hurricanes that are becoming stronger and more frequent in the past 5 years. Hurricanes and heavy flooding have hit our area 3 years in a row from 2018 to 2020. The most recent hurricane, Hurricane Hanna, hit in July 2020, dumping more than 9” of rain in the area in just 2 days. The floods damaged our cover crops, causing \$4,000 in losses. And even though we usually have very mild winters, we’ve had a lot of freezes recently, which are very uncommon in this area. Last winter, during Winter Storm Uri—the record-breaking storm that left millions without power, dozens dead, and caused \$24 billion in overall damages—we experienced a hard freeze, resulting in us losing $\frac{1}{3}$ of our crops. These losses totaled \$60,000—more than $\frac{1}{2}$ of our annual revenue. I’m currently still trying to navigate the Noninsured Crop Disaster Assistance Program (NAP) to get help for those losses. Unfortunately, communica-

tion between the local office has been painfully slow and USDA staff and technical assistance providers aren't sure how to help a small-scale farmer like myself. Crop insurance is not affordable to farmers like me, and disaster relief programs are not accessible to small and diversified farms. To support the future of agriculture, USDA needs to change the way it serves young farmers. We would have benefited from having access to outreach programs, easily accessible online resources and tools, and technical assistance to help us apply for USDA programs. We also would have benefited from well-trained staff in county offices who were aware of our needs and could have guided us toward programs tailored for our small-scale farm. I would like to see more programs that provide up-front funding without placing the burden of financing projects onto the farmers who may not have access to credit.

Since winters are also getting warmer and temperatures are fluctuating more, we have faced an increasing amount of pest pressure. Over the past 2 to 3 years, we are seeing more and more cucumber beetles and aphids, which are challenging to manage and cause damage to our crops. Climate change is also affecting how our crops grow—as temperatures fluctuate, we have been trying to account for those changes by buying heat, cold, and drought resistant varieties. We are also adding organic matter to our soils to increase moisture retention and soil fertility. On the farm, we try to incorporate climate-smart agricultural practices and minimize tillage to allow the natural soil ecosystem to thrive. Small farmers are already doing many things to sequester carbon and preserve natural resources on a limited budget, but we need more help. We want to do so much more and increased access to cost-share dollars would make it economically feasible for us to invest in climate resilience.

To do my part in fighting climate change, I am interested in on-farm renewable energy and integrating more sustainable practices into my operation. For example, I would like to use a solar powered tractor and install wind turbines to harness the strong coastal winds we have here to provide energy for my farm. I'm also interested in conserving water by collecting rainwater from my farm buildings. We are currently using drip irrigation to conserve water, but the rise in prices on drip tape is prohibitive. We are also experimenting with biochar to sequester more carbon and add biomass to our soils, but the equipment needed to produce biochar is expensive and not accessible to small farmers. I need support to continue this project and others, like building a biodigester to convert food waste to fertilizers and renewable biogas. We need more support and increased funding for programs like Sustainable Agriculture Research and Education (SARE) grants to develop new technologies. SARE provides money for farmer-led research and outreach, and is critical for farmers like me who are committed to sustainable agriculture.

In my 10 years of farming, I've been fortunate enough to have access to several USDA programs, but I know that this experience is not the case for all young, beginning, small, and BIPOC farmers. Because I've been working in South Texas for so long, my husband and I have developed relationships with our local USDA offices. Despite this, I've experienced challenges that make it difficult to use these programs. One significant barrier is the reimbursement model for EQIP. We didn't have any capital to buy materials and cover labor costs for the installation of irrigation pipes and a high tunnel, so we had to take out a microloan through FSA to fund the project. EQIP programs have contract terms and farmers do not have the time to wait to go through a 3–4 month loan application process. For our most recent EQIP project we had to take out a personal loan from a commercial lender at a higher interest rate. We were fortunate to be approved for the loan in time to complete the project within the contract period, but I believe that was due to having off-farm income, great credit, and farm sales data to strengthen our application. The reimbursement model is a major challenge for beginning farmers short on capital, unaware of microloan programs, and those who have bad credit or no access to traditional forms of credit, have student loan debt, and don't have off-farm income to fall back on.

Additionally, when I have applied for programs with USDA, I've found that the process is long and requires a lot of paperwork. My husband and I were both working off-farm jobs to provide for our family, so it took us a long time to gather all the required documentation and place it in the required format. Having to explain our work using rigid terms and units was also difficult. Figuring out how to convert our production of over 40 crops to yields per acre and present proof of our market prices to justify our business plan required a lot of time that we just don't have. The applications are designed for large commodity farmers who grow one or two crops. We were on our own for this process and eventually had to send in several revisions, which took even more time. We could have benefited from technical assistance and staff more knowledgeable about small-scale, diversified farming, as well as streamlined applications for diversified farms.

Through my work with the National Young Farmers Coalition, I have the privilege of providing young BIPOC farmers technical assistance with accessing USDA programs like CFAP2 and FSA loan programs. I have found that many were unaware of the programs and very appreciative of the outreach. Young farmers that requested technical assistance didn't feel comfortable working with their local offices because of discrimination, didn't understand how to complete the forms or where to access online resources, and had language barriers. Many had misinformation and assumed that they weren't eligible because they were a small diversified farm. Others were interested in applying, but didn't have time to complete the forms and would have preferred a streamlined online application process. I was able to provide one-on-one bilingual support for the farmers, making connections between farmers and local offices.

When I first started farming, there were a lot of local producers who sold at my farmers market. Ten years later, only one or two of those original farmers are still farming. Young farmers are the future of agriculture, but we need the support from USDA in order to continue sustainably growing food for our communities while dealing with a changing climate. Despite being directly affected by climate change, we as farmers have the unique ability to sequester carbon in the soil by using climate-smart methods like planting cover crops, using no- and reduced-tilling, and managed grazing. We often don't have the startup capital needed to get off the ground quickly, often don't have access to traditional forms of credit, and are not eligible for many of the programs that are out there and tailored to larger farms, like crop insurance and disaster relief. Young farmers and farmers of color are already more likely to use climate-smart agricultural practices, and USDA must focus on expanding programs and supporting farmers who are already doing this work. By incorporating these methods into our farming practices, we can continue providing healthy food to our local communities, but we can only do this with secure access to land. I would like to see USDA and Congress focus on land security for young and BIPOC farmers.

Passage of bills like the Agricultural Resilience Act (ARA) will be instrumental in supporting young farmers on the frontlines of the climate crisis. The policy changes outlined in the ARA should be used to reimagine conservation in the farm bill and how these programs can support young and BIPOC farmers to act on climate.

Thank you for listening and holding this important hearing. I appreciate the opportunity to share my story and the story of so many farmers like myself.

The CHAIRMAN. Thank you very much, Ms. Raygoza. Thank you. And now, Dr. Humiston, please begin when you are ready.

STATEMENT OF GLENDA HUMISTON, Ph.D., VICE PRESIDENT, AGRICULTURE AND NATURAL RESOURCES, UNIVERSITY OF CALIFORNIA; DIRECTOR, AGRICULTURAL EXPERIMENT STATION AND COOPERATIVE EXTENSION SERVICE, OAKLAND, CA

Dr. HUMISTON. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to speak on this subject and the next farm bill.

For more than a century, California's \$50 billion agricultural sector has depended on the land-grant university for new technologies and research breakthroughs needed to stay competitive and be responsible stewards of the land. Beyond on-farm production, California's working landscapes include forests, wetlands, mines, and water bodies that are valuable sources of ecosystem services. Those services provide biological necessities such as clean water, nutritious food, and livable climate, as well as economic benefits such as jobs and revenue.

Extreme climate events are changing California's ecosystems. Fires, floods, drought, and more invasive pests are already affecting agriculture. For example, unseasonably warm weather now causes many fruit and nut trees to bloom before the last frost, causing great economic losses. Changing climate decreases water

supplies, increases wildfires, and threatens agricultural productivity.

To combat this, we must enable working landscapes to adapt and become a solution to climate change. According to the National Academy of Sciences, U.S. soils and forests have the potential to sequester 500 million metric tons of carbon dioxide annually. Markets for carbon credits are one solution to move us there.

Such climate-smart practices require we fully utilize USDA programs and leverage collaborations between government, academia, and the private-sector. We need voluntary market- and incentive-based programs, and a focus on science-based outcomes. New science and technologies will allow farmers to remain economically viable while generating co-benefits, such as improved water holding capacity of soils, pollinator habitat, and carbon sequestration. We are moving to expand relations between the life sciences and engineering and other technology specialists to develop those complex solutions to these challenges. Some examples are placing solar panels over irrigation canals to reduce evaporation of precious irrigation water, while also producing electricity—something Congressman Costa has long supported—implementing healthy soil practices to improve groundwater recharge, and dairy digesters to create biofuels rather than harmful greenhouse gases.

Other opportunities exist in forest health efforts that convert excessive fuel loads, biomass, into valuable bioproducts. Expanding the capacity to manufacture advanced wood products can support economic development in rural communities. Examples of this work include converting that biomass into hydrogen and liquid biofuels to reduce diesel in trucks.

In California, we are excited to work with the Governor and the state legislature to secure \$185 million investment in UC to expand climate-focused research innovation and workforce development. This funding will establish regional workforce hubs to provide on-the-job training opportunities for students and leverage career certification programs for college prep and non-degree seeking individuals.

USDA's Climate Hub should be expanded to engage in more stakeholders, as should the Forest Service's work on wood products and ability to enter into long-term stewardship agreements with state and local partners. Rural Development, the Agricultural Marketing Service, and many other USDA programs help build climate solutions through more efficient regional food systems, workforce training, certification of BioPreferred products, and risk management.

To help rural economies better adapt to climate change, we need senior USDA leadership coordinating climate issues across programs and pushing interagency cooperation. USDA must also collaborate with Federal entities to support improvements to broadband access, and with programs like the Economic Development Administration, to ensure that access to capital, effective economic development, and infrastructure investments are effectively delivered. Such distribution of program dollars also requires that the current definition of *rural* be updated. Far too many communities are improperly denied USDA resources due to the antiquated definitions of *rural* versus *metropolitan*.

Federal capacity funds are leveraged many-fold by competitive and private industry partnerships. Competitive grants stimulate new ideas and speed up some research; however, they can also—shift toward short-term project research. It can take several years to develop a new crop variety, longer for tree crops, and even longer to fine-tune new technologies.

When UC Davis designed a machine to automate harvesting tomatoes in the 1960s, it required agronomists to breed a less delicate variety of tomato that could be machine harvested. There is a critical need to invest in a well-balanced mix of capacity and competitive funds for research, as well as significant investments in ag research facilities. Such investments will help ensure farmers and ranchers have access to the sound science, technologies, and information they need to build climate resilience and mitigate environmental impacts.

I thank you for the opportunity and look forward to questions. [The prepared statement of Dr. Humiston follows:]

PREPARED STATEMENT OF GLENDA HUMISTON, PH.D., VICE PRESIDENT, AGRICULTURE AND NATURAL RESOURCES, UNIVERSITY OF CALIFORNIA; DIRECTOR, AGRICULTURAL EXPERIMENT STATION AND COOPERATIVE EXTENSION SERVICE, OAKLAND, CA

Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee, my name is Glenda Humiston, and I serve as the Vice President of Agriculture and Natural Resources (ANR) for the University of California (UC) system. I am honored to have this opportunity to discuss the importance of agricultural research, and other USDA programs, as you begin work on the next farm bill.

With UC ANR serving as a vital partner, California continues to be the nation's top agricultural state. For more than a century, California's \$50 billion agricultural sector has depended on UC ANR, in partnership with our UC campuses, for the stream of new technologies and research breakthroughs needed to stay competitive and be responsible stewards of the land. We are proud to be part of the Land-Grant partnership that was developed between states and the Federal Government with the 1862 Morrill Act, 1887 Hatch Act and the 1914 Smith-Lever Act. That enterprise has, for over 130 years, advanced scientific knowledge in all aspects of food production, and improved production capacity, profitability, and safety of the nation's food system.

With over 71,000 farms producing 400 different commodities, California is an agricultural behemoth and the sole provider of many high-demand farm products while also exporting roughly 1/3 of its agricultural production each year. Beyond on-farm production, California's working landscapes include farmland, ranches, forests, wetlands, mines, water bodies and other natural resource lands, both private and public, that are vital sources of ecosystem services. These services are ways that the natural world provides biological necessities, such as clean water, nutritious food, and a livable climate, as well as indirect economic benefits, such as jobs and revenue created along food value chains. More broadly, they encompass intangible goods that contribute to human well-being, such as recreation, aesthetic inspiration, and cultural connection.

Ensuring that those ecosystem services are functioning and remain available to utilize is an ever-growing challenge. There can be no doubt that extreme climate events are changing California's landscape—fires, floods, drought, more invasive pests are already affecting agriculture. For example, unseasonably warm weather now causes many fruit and nut trees to bloom before the last frost, causing great economic losses. In the coming decades, the changing climate is likely to further decrease the supply of water, increase the risk of wildfires, and threaten coastal development and ecosystems.

To combat such future perils, we must harness the ability of our agricultural and other working landscapes to adapt, to mitigate and where possible, to become a solution to climate change. According to the National Academy of Sciences, U.S. soils and forests have the potential to sequester about 500 million metric tons of carbon dioxide annually. Emerging markets for carbon credits and government incentive programs could generate tens of billions of dollars per year in new investment for working farm and forest lands within the next several years.

Within this framework, USDA programs are critical to our efforts to support carbon sequestration, improved water management, healthy soils, forest restoration, hazardous fuels management, and wood products innovation, among other provisions that support natural climate solutions. USDA's new Partnerships for Climate-Smart Commodities is a great example of how targeted funding for pilot projects can create market opportunities for commodities produced using climate-smart practices.

As we pursue those climate-smart practices, it is critical that we make full use of existing programs and leverage collaborations among them wherever possible. Supporting partnerships between government agencies with academia and the private-sector will enable production of multiple benefits from various actions. As part of this we need to utilize voluntary, market and incentive-based programs to the greatest extent possible and maintain a focus on science-based outcomes. In many situations, transformative innovation is needed—moving beyond just improving existing methods and processes to totally re-thinking how our systems are designed to deliver policy and programs.

UC ANR supports California farmers and ranchers to be resilient to extreme weather events with data-driven tools, methods, and technologies. For example, we are developing drought, heat, and pest-tolerant crop varieties that allow farmers to remain economically viable while also being resilient to extreme weather. Finding new crops suitable for California soils and ecosystems not only improves the productivity of the farm but can have co-benefits such as improving water-holding capacity of the soil, increasing native pollinator habitat, and boosting local economies by increasing value-added products.

We are also pushing our research system to expand collaborative efforts between experts in soil sciences, plant pathology, biochemistry, and other sciences with technology experts in robotics, sensors, artificial intelligence, materials, supply chain logistics, and energy systems to solve today's complex problems in agriculture. Much like the biomedical revolution, it is the integration of multiple disciplines into a single project that can lead to transformative innovation that improves productivity, food safety, and ecosystem services while also giving rise to new businesses. Great examples of such transdisciplinary research and development include:

- An initiative to place solar panels over irrigation canals to reduce evaporation of precious irrigation water supplies for farmers while also producing electricity.
- Implementing healthy soil practices, like cover crops and no-till, to enhance capture of rain and improve groundwater recharge.
- Programs for farmers to install dairy digesters to convert potentially harmful greenhouse gases into valuable biofuels.

To develop the science, new technologies and better farming practices that are desperately needed, increased funding for agriculture and food-related research and extension is necessary as are new investment in agricultural research facilities. Public funding for agricultural research in the U.S. has declined in real dollars over the past few decades while deferred maintenance of research facilities greatly hampers scientists' work. Greater investments will help ensure farmers and ranchers have access to the scientifically rigorous tools and information they need to build climate resilience, mitigate environmental impacts, and increase the productivity of their land.

Other exciting opportunities can be found in forest health efforts that convert excessive fuel loads—biomass—into valuable bioproducts while reducing risk from catastrophic wildfires. California's wildfire crisis continued its destructive march in 2020, each year worse than the one before. Working closely with regional economic development organizations and our California Economic Summit partners, UC ANR is a key partner in developing and implementing recommendations to improve forest health, reduce wildfire risk, incentivize innovation in new and innovative wood products industries and build capacity for manufacturing to enhance forest and environmental health and resilient rural communities. Examples of this work include:

- Organizing controlled burn associations with local communities and other forest treatment practices such as a software program, Match.Graze, that improves use of grazing.
- Partnering with the Inland Empire Economic Partnership and the southern California commercial ports to convert biomass into Hydrogen and other liquid biofuels to replace diesel in trucks—the largest source of air pollution in that region.
- Educating homeowners on landscaping, defensible space, and fire-wise plants to improve home-hardening, reduce risk from fire and conserve water.

- UC Engineering research on materials science is developing new advanced wood products and data to demonstrate the multiple values of construction with such products.
- Teaming up with community colleges to provide workforce training in forest professions.

The U.S. needs robust funding for wildfire prevention, research, recovery, and extension. Cooperative Extension academics are lead experts in forestry and wildfire research and they provide critical resources to inform strategic fuels management, enhance community wildfire planning, and build community fire adaptation and resiliency. USDA's Climate Hubs should be expanded so that they can regularly engage stakeholders and prioritize vital research amongst more partners. The U.S. Forest Service's work on bioproducts is extremely valuable as is their willingness to enter into long-term stewardship agreements with state and local partners.

In California, we are very excited to be working with the Governor and the state legislature to secure a \$185 million investment in UC to build new capacity in climate-focused research, innovation, and workforce development. For example, with this funding we would establish Regional Workforce Hubs that will provide on-the-job training opportunities for university and community college students as well as well as leverage the professional learning and career certification infrastructure of the UC Extension programs to offer a portfolio of training opportunities, tools, and resources for college-prep and non-degree seeking individuals.

Just as these programs allow us to implement climate smart agriculture and healthy forests' initiatives, they also support regional economic development and job creation. Rural Development, the Agricultural Marketing Service and many other USDA programs are important partners as we build climate solutions through more efficient regional food systems, improved supply chains, workforce training, manufacturing of BioPreferred products, and food security initiatives.

If we are to promote resilience and help rural economies better adapt to climate change, we need to harness all programs throughout the U.S. Department of Agriculture. That means having senior USDA leadership coordinating climate issues across the entire agency and robustly serving as USDA's climate representative at all interagency climate-related meetings. For example, USDA must collaborate with Federal entities like the Federal Communications Commission to support improvements to broadband access, which is critical for climate-smart precision technologies and rural economies. Similarly, just as USDA has partnered with the National Science Foundation on research initiatives and jointly funding competitive grants, it needs to build closer partnerships with programs like Commerce's Economic Development Agency and Treasury's Community Financial Development Institutions to ensure that access to capital, effective economic development planning and infrastructure investments are targeted appropriately and delivered well.

One important way to help ensure wise distribution of program dollars to give the current definition of "rural" serious examination and re-engineering; as it stands now, far too many communities are improperly denied USDA resources due to the antiquated definitions of rural and metropolitan. Strongly encouraging more cross-agency proposals throughout USDA and enhanced support for public-private partnerships would remove barriers and hurdles for industry and communities alike.

The current mix of Federal and state capacity funds is generally leveraged many-fold by Federal competitive grants, grants from private industry, and other types of unrestricted gifts and awards to faculty conducting research at the nation's land-grant universities. Competitive funding processes can elicit new ideas and speed up certain research projects; however, they also encourage a shift from programmatic research towards shorter-term project research. Failure to invest in a well-balanced mix of capacity and competitive funds for food and agriculture research could have very negative consequences for decades to come—consequences that would take significant time to reverse.

It takes at least 7 to 15 years of research and development to develop a new crop variety—longer for trees/vines. Deploying and/or adapting new agricultural technologies can be even longer. For example, when UC Davis engineer, Coby Lorenzen, designed a machine to automate the harvest of tomatoes in the 1960's, it also required agronomist, Jack Hanna, to develop a less-delicate variety of tomato that ripened uniformly and could be easily plucked from the plant, essential qualities that made machine harvesting feasible. Federal funding that recognizes these realities as well as improvements in technology transfer and support for commercialization is vital.

Faculty and staff at land-grant universities across the nation recognize that their work takes place on behalf of a greater good, a broader goal, and a common vision that is much bigger than their individual achievements. Members of this House

Committee on Agriculture can be confident that every dollar of Federal investment authorized by the farm bill and expended at land-grant universities is guaranteed to be leveraged further, and to spawn innovation and discovery that will be translated into solutions to improve the lives of U.S. citizens. I thank you for this opportunity to provide testimony.

The CHAIRMAN. Thank you, Dr. Humiston.
And now, Dr. Outlaw, you may begin.

**STATEMENT OF JOE L. OUTLAW, PH.D., PROFESSOR,
EXTENSION ECONOMIST, AND CO-DIRECTOR,
AGRICULTURAL AND FOOD POLICY CENTER, DEPARTMENT
OF AGRICULTURAL ECONOMICS, TEXAS A&M UNIVERSITY,
COLLEGE STATION, TX**

Dr. OUTLAW. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to testify on behalf of the Agriculture and Food Policy Center at Texas A&M University as you focus on the opportunities that producers have to positively impact climate change.

As many of you know, the primary focus of AFPC has been to analyze the likely consequences of policy changes at the farm level with our one-of-a-kind dataset of information that we collect from commercial farmers and ranchers located across the United States. Working closely with the commercial producers has provided our group with a unique perspective on agricultural policy. While we normally provide the results of policy analysis to you or your staff without recommendation, today I am carrying the message from the 675 producers we work with across the United States.

The set of conservation programs in Title II have a strong track record of incentivizing producers to retire some of the country's most fragile land, or implementing environmentally beneficial projects or practices on working lands. The producers we work with have very strong positive views about these programs, with the only drawbacks being they have more projects they are willing to do than there is money to do them.

In preparation for this testimony, we emailed our representative farm members the following points that I planned on making, and asked them to let us know if they agreed or disagreed with each of the five points. They agreed.

Number one, having a strong safety net from Title I programs ARC, PLC, and the marketing loan in Title XI crop insurance remains critical even with new carbon market opportunities. In the words of a wheat farm panel member from Washington State, "It is the peace of mind we get from knowing the bottom can't completely fall out from under us that keeps us going." Most felt that crop insurance was going to be the key safety net program this year with high prices and reiterated do no harm. This leads me to the point that might not be shared by others on this panel. In my opinion, tying climate-smart practices to the crop insurance program should not be done, not to premiums, not to participation, nor to indemnities. The farmers we work with are worried about the long run implications for crop insurance of tying climate-smart provisions to the policy, and that it will lead to regional winners and losers depending upon practices that are available.

Number two, USDA conservation programs CRP, CSP, and EQIP that have incentivized a broad array of conservation practices have

worked well in the past. They have just been underfunded. These programs have a strong history of helping producers undertake practices that scientific studies have found provide proven environmental benefits. Producers much prefer this type of approach to the current carbon program situation.

Number three, Congress should strongly consider providing financial incentives to early adopters who are not eligible to participate in current carbon programs due to the additionality requirement. If it is good to sequester carbon, it should also be good to keep carbon sequestered. Many of the producers who responded to my request had indicated that they are disgusted with the system that only rewards late adopters. I believe that the government and this Committee has a role in ensuring that producers with carbon already stored are incentivized to keep the carbon sequestered. Potential programs should avoid the incentive to reverse production systems so that carbon already stored is released in order to capture program benefits.

Number four, all producers, regardless of size, region, or crops planted should have opportunities in any new USDA climate programs. This statement appears fairly benign, but let me assure you it is not. If all producers in the U.S. do not have some USDA NRCS identified practice they can undertake in the name of sequestering carbon, then there will be regional winners and losers as carbon programs are created.

Number five, Congress should consider providing USDA the authority to safeguard producers from being taken advantage of in current carbon markets dealing with private entities. For example, signing a carbon contract with at least one current company would require a producer to forego commodity and conservation program benefits on that land.

The agriculture industry is in need of guidelines that take the mystery out of the current carbon market opportunities. If private carbon markets are ever going to matter, they have to be more transparent than they are currently. The current benefits are weighted too low to lock into a multi-year agreement with a lack of structure and transparency in this market.

Mr. Chairman, that completes my statement.

[The prepared statement of Dr. Outlaw follows:]

PREPARED STATEMENT OF JOE L. OUTLAW, PH.D., PROFESSOR, EXTENSION ECONOMIST, AND CO-DIRECTOR, AGRICULTURAL AND FOOD POLICY CENTER, DEPARTMENT OF AGRICULTURAL ECONOMICS, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to testify on behalf of the Agricultural and Food Policy Center at Texas A&M University as you focus on the opportunities that producers have to positively impact climate change. As many of you know, the primary focus of AFPC has been to analyze the likely consequences of policy changes at the farm level with our one-of-a-kind dataset of information that we collect from commercial farmers and ranchers located across the United States.

Our Center was formed at Texas A&M University more than 30 years ago at the request of Congressman Charlie Stenholm to provide Congress with objective research regarding the financial health of agricultural operations across the United States. Since that time, we have worked with the Agricultural Committees in both the U.S. Senate and House of Representatives, providing Members and Committee staff objective research regarding the potential farm-level effects of agricultural policy changes.

Working closely with commercial producers has provided our group with a unique perspective on agricultural policy. While we normally provide the results of policy analyses to you or your staff without recommendation, today I am carrying the message from the nearly 675 producers we work with across the United States.

In 1983, we began collecting information from panels of four to six farmers or ranchers that make up what we call representative farms, located in the primary production regions of the United States for most of the major agricultural commodities (feedgrain, oilseed, wheat, cotton, rice, cow-calf and dairy). Often, two farms are developed in each region using separate panels of producers: one is representative of moderate-size, full-time farm operations, and the second panel usually represents farms two to three times larger.

Currently we maintain the information to describe and simulate 94 representative crop and livestock operations in 29 states. We have several panels that continue to have the original farmer members we started with back in 1983. We update the data to describe each representative farm relying on a face-to-face meeting with the panels every 2 years. We partner with the Food & Agricultural Policy Research Institute (FAPRI) at the University of Missouri who provides projected prices, policy variables, and input inflation rates. The producer panels are provided *pro forma* financial statements for their representative farm and are asked to verify the accuracy of our simulated results for the past year and the reasonableness of a 6 year projection. Each panel must approve the model's ability to reasonably reflect the economic activity on their representative farm prior to using the farm for policy analysis.

The set of conservation programs in Title II have a strong track record of incentivizing producers to retire some of this country's most fragile lands through the conservation reserve program (CRP) and the agricultural conservation easement program (ACEP) or implement environmentally beneficial projects or practices on working lands through the conservation stewardship program (CSP), the environmental quality incentives program (EQIP) and the regional conservation partnership program (RCPP). The producers we work with have very strong, positive views about these programs with the only drawbacks being they have more projects they are willing to do than there is money to do them, and they question how priority areas are determined regionally. For example, in FY 2019, 41,471 EQIP applications were funded of the 149,574 received or only 27.7%. Of the roughly 108,000 remaining applications, 46% were determined valid, but unfunded.

USDA is already using existing programs to incentivize climate-smart practices through, for example:

- Targeted "Climate-Smart Agriculture and Forestry EQIP" in select states.
- Providing \$300 million in RCPP funding for 85 projects focused on climate-smart agriculture.
- Expanding CRP enrollment by 4 million acres by raising rental rates and expanding the number of voluntary incentivized environmental practices allowed. NRCS is also establishing a "climate-smart practice incentive" and pays for the establishment of trees and permanent grasses, developing wildlife habitat, and wetland restoration.

In addition, the 2018 Farm Bill established EQIP Incentive Contracts which blend EQIP and CSP to provide financial assistance to producers for adopting conservation activities. It was first available in FY 2021 in four pilot states and is now available nationwide. Contracts are for 5 to 10 years in length with a \$200,000 payment limit over the life of the 2018 Farm Bill (expires 2023).

In preparation for the testimony today, we emailed our representative farm members the following points that I planned on making and asked them to let us know if they agreed or disagreed with each of the five points. They were also asked if there was anything that they thought I was missing; I will point out the areas that were suggested below. The panel members were emailed Saturday afternoon with the request to reply by midday Monday. At the time of submitting this written statement, we had received 105 responses.

1. ***Having a strong safety net from Title I programs (ARC/PLC and the marketing loan) and Title XI (crop insurance) remains critical even with new carbon market opportunities.*** They unanimously agreed with this statement in spite of the fact they expect very little benefit from Title I programs this year. In the words of a wheat farm panel member from Washington State . . . "it's the peace of mind we get from knowing the bottom can't completely fall out from under us that keeps us going." Most felt that crop insurance was going to be the key safety net program this year with high prices and several reiterated "do no harm." This leads me to the point that

might not be shared by others on this panel: in my opinion, tying climate-smart practices to the crop insurance program should not be done—not to premiums, not to participation, nor to indemnities. The farmers we work with are worried about (1) the long-run implications for crop insurance of tying climate-smart provisions to the policy and/or (2) that it will lead to regional winners and losers, depending upon practices that are available.

2. ***USDA conservation programs (CRP, CSP and EQIP) that have incentivized a broad array of conservation practices have worked well in the past. They have just been under-funded.*** These programs have a strong history of helping producers undertake practices that scientific studies have found provide proven environmental benefits. Producers much prefer this type of approach to the current carbon program situation where the significant record keeping requirements, additionality requirements, uncertain soil tests, and very low financial benefits have the majority of our representative farm panel members not interested in participating.
3. ***Congress should strongly consider providing financial incentives to early adopters who are not eligible to participate in current carbon programs due to the additionality requirement. If it is good to sequester carbon it should also be good to keep carbon sequestered.*** Many of the producers who responded to my request indicated that they are disgusted with a system that only rewards late adopters. In their words “they chose to no-till or implement cover crops for economic and environmental reasons many years ago, but a carbon market should reflect the value of both stored and in the process of being stored carbon.” I can understand in the current carbon market that companies are wanting to make a difference by paying to remove carbon from the atmosphere. That is why I believe that the government and this Committee has a role in ensuring producers with carbon already stored are incentivized to keep the carbon sequestered. Potential programs should avoid the incentive to reverse production systems so that carbon already stored is released in order to capture program payments. Further, what happens when producers who have adopted no-till practices can’t get herbicides (which replace cultivating) to control weeds?
4. ***All producers regardless of size, region, or crops planted should have opportunities in any new USDA climate programs.*** This statement appears fairly benign, but let me assure you it is not. If all producers in the U.S. do not have some USDA NRCS identified practice they can undertake in the name of sequestering carbon, then there will regional winners and losers—including by both crop and by size—as carbon programs are created. In addition, several of the producers responded that carbon payments should not be payment limited as doing so would likely reduce the effectiveness of the program.
2. ***Congress should consider providing USDA the authority to safeguard producers from being taken advantage of in current carbon markets dealing with private entities. For example, signing a carbon contract with at least one current company would require a producer to forgo commodity and conservation program benefits on that land.*** The agricultural industry is in need of guidelines that take the mystery out of the current carbon market opportunities. For example, many of the different companies utilize their own proprietary test for soil carbon. Why? Also, why would a company require the field under contract with them to be ineligible for other nonrelated USDA benefits? If private carbon markets are ever going to matter, there has to be more transparency than there is currently. The current benefits are way too low to lock into a multi-year agreement with the lack of structure and transparency in the market. Having said this, several producers we work with have said they would rather not have the government get involved in the carbon market at all and asked me to point out that while they see a problem—it could be made worse.

Mr. Chairman, that completes my statement.

Figure 1. Representative Farm and Ranch States With Those Responding to Questions



The CHAIRMAN. Thank you, Dr. Outlaw, and I thank all of you for your excellent testimony.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us the necessary time to get to as many questions as possible. And also, please, please, please keep your microphones muted until you are recognized in order to minimize background noise.

And now, I recognize myself for 5 minutes.

Ms. Raygoza, let me—you gave—you brought out some interesting points, and one of our Committee's concerns is that we recognize the many challenges that our beginning farmers are having. You all are our future, the beginning farmers. You mentioned a couple of things I would like you to address. You mentioned a problem with up-front money. You also mentioned a lengthy process, lack of capital, access to land. You brought a lot of very important points out that I would like for you to address in order of importance in order that we may make the necessary recommendations to address these issues that you and our beginning farmers are facing. Could you start with what you mean by up-front money?

Ms. Raygoza?

Ms. RAYGOZA. Yes. Thank you for the question. Up-front money I am referring to is the money we had to gain up-front to implement the EQIP practices. For example, on my farm we were approved for land leveling and we had to take out a personal loan to cover the cost of implementing that practice. And we also had to get financing through a line of credit in order to implement some irrigation systems on our farm.

And so, those are the up-front costs I am speaking of. Fortunately for us, we have good credit, but many young farmers, they might not have good credit to access those financing options. So, I

think that is key for making those programs accessible to farmers is to have those funds available up-front so we don't have to look for other financing options.

The CHAIRMAN. Well, very good, and I am sure all of us will be addressing that concern, and certainly the USDA are very mindful of your testimony on those points.

Senator Heitkamp, in your testimony you mentioned the importance of expanding technical assistance for natural climate solutions and addressing workforce needs. Could you address those? How will this benefit some of our historically underserved producers, Senator Heitkamp?

Ms. HEITKAMP. I think clearly anyone who knows anything about agriculture knows that we have left some farmers behind, and a lot of that isn't just about access to capital. It isn't just about land challenges that you all have. But it also is about access to information and access to the expertise. And it seems to me that we need—if we are going to recognize—let's take North Dakota. 91 percent of all of North Dakota is engaged in production agriculture, and even if you are not recognized as an ag state, you still have a lot of land and you still have a lot of ag producers. Every state in the Union, including states like Massachusetts, have a baseline in agriculture. And so, we can't leave anyone behind if we are going to do it.

But the problem that you have with workforce is we train workforce, but do we deploy them appropriately? And, I know from my experience—well, take the EQIP Program. During a horrible drought in western North Dakota, an early adopter of the EQIP Program actually was able to grow grass and did not have to buy hay. All of a sudden, his neighbors were looking across the fence. What a great moment that would have been to deploy a team of people to say, "Hey, this is how you do the EQIP Program," and not rely on just that producer to producer discussion. And so, I think deploying a workforce, this is really true in forestry as well, and we had a lot of discussions about workforce in forestry. We know we have a workforce crisis. We have a lot of Americans who would love to do climate work, would love to work in rural America. We just need to get them trained and deployed. And that is not just in states, it is not just in Cask County, which is where Fargo is. It has to be in every county where we have an ag producer.

The CHAIRMAN. Thank you, Senator.

And now, Ranking Member, I recognize you for 5 minutes.

Mr. THOMPSON. All right, Mr. Chairman, thank you very much, and thanks to all the members of the panel for your testimony.

As you know, USDA has announced its \$1 billion Climate-Smart Commodity Partnership Initiative Pilot. Many of you have heard me question the Department's authority to unilaterally create this pilot, and I am also concerned about the precedent this pilot sets and its impact on farmers and ranchers. It is my understanding that the CCC dollars will flow to a wide range of partners, and it is very unclear how much the funding will make it into the hands of producers, farmers.

Now, I do not believe that USDA or the taxpayers should be subsidizing corporations' arbitrary climate goals, nor do I believe we should be funding a climate cottage industry. I do believe in the

role that agriculture plays and the leading role that our farmers, ranchers, and foresters play when it comes to the climate.

That said, more concerning, however, is USDA moving forward creating climate-smart commodities when we have not examined the impact on farmers and ranchers.

Dr. OUTLAW, first of all, thank you for continuous leadership serving the agriculture industry. As an economist, do you have thoughts on the Climate-Smart Commodity Initiative and its impacts on farmers and ranchers?

Dr. OUTLAW. I certainly do. Obviously, I think that the effort is positive, but as someone who worries about markets and what is going to happen to producers, when you start developing climate-smart commodities, unless you have the ability for every area of the country to participate, then you are going to segment and you could potentially have segmented markets. Those that are done with climate-smart practices might—the only reason you do this is to try to get a better price for those commodities. So, one of the things—and just point blank, if you are going to do this, you have to be very, very careful, which I am not sure we have ever been careful enough to do this. Because you could absolutely create winners and losers in the same commodity, and much less the same region or different regions of the United States.

Mr. THOMPSON. Yes, I mean, isn't it true that within agriculture, you have different climates, soil types, how much moisture? I mean, how much nutrition is in the soil? There is a lot of variability of American agriculture, what our farmers and ranchers face.

And so, what happens to a cotton farmer who can't grow climate-smart cotton? What do you see as the impact on that market?

Dr. OUTLAW. Well, if this works and end-users pay more because of those practices, then they would be getting lower prices for their cotton without the benefit of getting those higher prices. It really is differentiating the market, and that is the one thing that I think has got to be protected on these practices and this effort.

Mr. THOMPSON. Yes, and the unilateral use of \$1 billion out of the CCC by the Secretary and the Department at a time when commodity prices—not all of them, but some are at a record high, we have commodities that are not there but inflationary costs are at record high, and the CCC is how we deal with those types of crises.

With this \$1 billion that has been committed unilaterally, I believe without authority, are we using government funding to put some growers at a disadvantage?

Dr. OUTLAW. Potentially, certainly.

Mr. THOMPSON. Last year, I introduced with the support of colleagues the SUSTAINS Act (H.R. 2606), which would allow for third parties, including corporations and businesses of all sizes—that was the beauty of it. It wasn't just the Googles, the Microsofts, the mega folks we talk about, but the mom-and-pop hardware store, the tractor supply place. Those who want to achieve their climate credentials would be able to invest in NRCS conservation programs, and in doing so would allow the private-sector to partner with farmers and ranchers and landowners in support of agriculture conservation.

Do you believe that this concept of public-private partnership where we would be able to fund more of these conservation pro-

grams, perhaps other programs within the farm bill, is something that you and others would support?

Dr. OUTLAW. Obviously without having all the details, but on its surface, we have a number of public-private partnerships that have worked in agriculture for quite some time. As long as both parties felt like the goals and objectives of the program were going to be achieved, I would say that would be a positive.

Mr. THOMPSON. Thank you. I am just about out of time. I will let my time expire, but I would ask that any of the other witnesses, if you have comments on that I would love to receive them in some written form of the SUSTAINS Act. The text is out there, so you can really take a fair read and a look at it.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

The gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations, is now recognized for 5 minutes.

Mrs. HAYES. Thank you, Mr. Chairman, and thank you for holding this important hearing.

My district is a leader in climate-smart agriculture. Our producers run small, diversified farms and often use ecofriendly practices. Our farmers are passionate about the expansion of USDA conservation programs, and increasing access for small and beginning farmers.

Ms. Raygoza, in your testimony you described how you built your farm from 1 to 15 acres over time, and that you now produce 40 different crops on your land. That is very impressive growth. But you also described that when applying to USDA programs to help aid your expansion, you found that applications are designed for large commodity farmers who grow one or two crops.

My question for you today is what are some of your recommendations for making these application processes easier for small, diversified farms like yours?

Ms. RAYGOZA. Thank you, Mrs. Hayes. I would recommend that the application process is simplified, or that we can input our data in units that make sense for us. For example, we had to convert our 100' beds of spinach into yield per acre units, and we sold in bunches or bundles, and converting that to pounds. That is just one example of the work that we had to do, and we work off-farm jobs as well. And so, that is a burden for applicants. So, I would recommend having those applications more flexible so that we can input the data in terms that we use. Also, I would recommend having market prices available, just gathering more data on organic pricing. I know we had to present a lot of the information ourselves, and so, just more information available for officers that are helping for loans, for example, and other programs.

Mrs. HAYES. Thank you. That is very helpful, and in line with what I am hearing from farmers in my own district.

In your testimony, you described how you provided technical assistance to other farmers in your area, particularly those who had misconceptions about eligibility and had small farms much like yours. What are some ways that you think we can strengthen outreach and education for young and beginning farmers, and where do you think the misconceptions about eligibility come from?

Ms. RAYGOZA. What I found is that many of the small-scale farmers assumed that these programs were for large farmers, and that they wouldn't be eligible because their revenue was very small compared to large farms. Also, they didn't know or consider the application process to be worth the time, because sometimes those applications are lengthy and because of the return, they felt like it wasn't something they could invest time into. And I would recommend just having those cooperative agreements with organizations like National Young Farmers that can relate better with young farmers that already have established relationships can improve outreach, and also having resources available online for farmers to research. I mean, a lot of our farmers are online right now, the young farmers, so just having those resources online, the application available online, would also increase participation.

Mrs. HAYES. Well, thank you so much for all of the work you have done here in this area, especially to educate young farmers. That is near and dear and so important to me.

My last question is farmers in my district—thank you, Ms. Raygoza.

But farmers in my district are passionate about expanding conservation programs in the next farm bill. Many have supported a double-funding of programs and are most interested in increasing funding for the Environmental Quality Incentives Program, Conservation Stewardship Program, and Agriculture Conservation Easement Program.

Senator Heitkamp, can you describe the impact that doubling conservation programs in the next farm bill would have, specifically for small farmers and new and beginning farmers, quickly?

Ms. HEITKAMP. I mean, it would be huge. One thing that we should be looking at is how many of these programs are oversubscribed, which means there are so many more people who want to access them. And so, we have to get more adopters. We better not leave, as the last speaker said, the early adopters behind like the people in your state who are already engaged in these kinds of practices.

But basically, we have long discussions at the task force. My personal position was whoever wants in these conservation programs should get in these conservation programs and up the ante and create greater incentives. Now we recognize that there are budget constraints and so, the task force didn't make that bold of a recommendation. But I totally agree with you. It is critical that we get more adopters in and that we do more encouragement for the great programs we already have. Let's use the tools we have. Let's fund them appropriately.

Mrs. HAYES. Thank you, Senator.

Mr. Chairman, I apologize. My time has expired. I yield back. Thank you.

The CHAIRMAN. Thank you.

The gentleman from Georgia, Mr. Austin Scott, is now recognized for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman, and I will try to be significantly briefer than that.

I want to point out a couple of things briefly. One is that approximately 12 percent of the U.S. farms—these are farms that have

more than \$250,000 in revenue—account for somewhere around 90 percent of the food supply in the United States. I think as we push forward with these things, while we need to provide additional support for beginning, young, and small farmers, we need to make sure that that is not being done at the expense of the U.S., and candidly, the global food supply.

I also want to point out to my colleagues something that I think is very important. President Zelenskyy met with Congress this morning. He showed tremendous leadership. One of the things that I do not think is being discussed enough is the fact that Ukrainian farmers put 50 million metric tons of corn and wheat into the global food supply. Trade in the Black Sea is closed. Russia and Belarus are responsible for—they are the number two and the number three producer of potash in the world. If our crops inside the United States do not have access to fertilizer, then the yields inside the United States and other major food producers will go down.

Mr. Chairman, my ask is that over the next couple of weeks that we, as the Agriculture Committee, would have a hearing on the potential reduction in the global food supply and the impact of hunger and the geopolitical stability around the world as we push forward over the next couple of weeks.

And so, I don't have a specific question for the panel. I have a couple of generals in my office that I intend to speak to right now about that same issue. But I do think all of us need to be aware of the unrest that comes from widespread hunger in the world, and recognize that Ukraine puts 50 million metric tons of food into the global food supply. And that is how much they export, and it is not going to be there this coming year. The Russian exports are not going to be there this coming year, and it is just something I think we as the Agriculture Committee should have a hearing on.

And with that, Mr. Chairman, thank you for allowing me the time to make that statement, and I look forward to continue discussions with the Committee on this.

The CHAIRMAN. And let me just say, Mr. Scott, that we as a Committee are moving forward. We know that the farmers in Ukraine may not be able to plant this spring because of the fighting. We also know that some parts of Ukraine will not be capable of being planted because of the damage of this terrible and wrong Russian invasion. And also, I will be asking you and my other colleagues to join me in sending a letter to Secretary Vilsack to bring some additional tools to help address this humanitarian crisis that is now taking place as a result of this terrible, awful Russian invasion.

So, I look forward to working with you on that, and your points are well-spoken and well taken. We on the Agriculture Committee will be out front and doing all we can to make sure that we do not have a hunger crisis. You point out well the position of Ukraine and Russia in terms of wheat, in terms of fertilizer. 66 percent of all that fertilizer is produced right in that area, and so, we are mindful of it. Thank you for your comments.

And now, the gentleman from California, Mr. Costa, who is also the Chairman of our Subcommittee on Livestock and Foreign Agriculture, is now recognized for 5 minutes.

Mr. COSTA. Well, thank you very much, Mr. Chairman, for holding this important hearing today as it relates to America's contribution and efforts as it relates to climate change. And I, too, want to commend not only Mr. Scott's comments as it relates to the disruption of food products, wheat production, and fertilizer products that come from Ukraine, but your sensitivity and acknowledgement of it as well that we on the Agriculture Committee and the impacts on foreign agriculture need to be conscious of as we plan ahead. The pariah Putin has invaded Ukraine, and in my view, he is a war criminal and we have to support Ukraine. But that aside, we also need to know the impacts not just to people who need to eat in that part of the world, but its impact on American agriculture as well.

I want to get back to the specific testimony of our witnesses here, and Dr. Humiston, you and I have worked together. Your testimony, I thought, was very important in a couple of areas that I would like you to quickly comment on.

I think agricultural production in America has done a lot to deal with the impacts of its carbon footprint and climate change. Ag energy is continuing to expand exponentially as we make changes, and whether we call it green energy, our use of methane or a whole host of sources, it really results in best management practices, in my view.

You and I have a lot of experience in, as you noted, in over the last 10, 15 years of looking in California how we do our part. I am wondering if you would like to talk about some other examples. You talked about the solar efforts of covering some of our water conveyance facilities. Under the category of not reinventing the wheel, what best management practice would you say we can build upon for next year's farm bill as we look at expanding American agriculture's ability to deal with our part? And I, too, push back as Representative Thompson indicated on some inaccurate reporting, and I would really invite *The New York Times* and others to come out to California and see what we have been doing, because I think they need to cover all of the aspects of what American agriculture is doing.

Do you care to comment?

Dr. HUMISTON. Yes, thank you, Congressman Costa. I appreciate that question.

Here in the U.S., we have a powerful track record that is world-renowned in converting science into actionable best management practices. We have nations from all over the world approaching us on how do we do that? How does our land-grant system, our cooperative extension, our NRCS, all of our various programs, how do they do it? Because we do a great job, and we have. And I think that is important. You have heard from all the speakers today about the importance of the voluntary, incentive-based programs—

Mr. COSTA. So, how do we build upon that with next year's farm bill and with the bipartisan infrastructure package that we passed?

Dr. HUMISTON. Well, two things. I mean, we have heard some folks concerned about investments that USDA is currently making in these. Personally, I think we have to make these investments. If we want our farmers to be able to deal with extreme weather

and avoid additional regulations, we have to create incentive programs that really have some meat on the bones, which includes the kind of funding that USDA is attempting to put out there.

I would also say that we have to leverage our existing programs to the degree possible, and particularly cross pollinate them. For example, in California, we are really working hard to create a biomass manufacturing sector. We are working closely with our forests because there is a lot of volume there. What we are missing is the infrastructure, supply chains, and capability to do something with that biomass. If we can get that in place, our farmers are going to be able to utilize that same infrastructure and manufacturing for agricultural biomass and start turning a waste product into a profit center.

Mr. COSTA. I have limited time left here. I would suggest you put together a list of these various proposals and prioritize them on how we might, with the examples that you cited, how we combine these best risk management practices as we look at next year's farm bill.

You touched upon the definition of *rural*, and this has been a problem that you and I have both dealt with. We have a lot of rural America that doesn't qualify under the Federal definitions of *rural*. What would you suggest on how we deal with that?

Dr. HUMISTON. We have to start raising the limits on eligibility for a lot of these programs on population, and we have also got to stop using this antiquated rural *versus* metropolitan. The way it is currently used right now, if you have one community in a county that has a population of 50,000, the entire county is labeled metropolitan. You look at many of our counties that are huge agricultural counties. It is ludicrous to have them considered metropolitan, especially when you consider the amount of agricultural product from them.

Mr. COSTA. I concur. Thank you.

The CHAIRMAN. Thank you.

The gentleman from Arkansas, Mr. Crawford, is recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman, and I would also like to associate myself with the comments that Mr. Austin Scott made earlier with regard to the situation in Ukraine and the impact that that can have here in the United States with regard to ag production. And that brings up a question I want to direct to Dr. Outlaw, and it has to do with fertilizer exports to the west. Russia just announced a suspension in fertilizer exports to the west. We know that that is driving input costs, and meanwhile, India, the world's second biggest producer of rice, wheat, and sugar, is set to spend \$20 billion this year, \$20 billion, to provide free fertilizer to their farmers. So, everyone here is aware of the staggering increase for inputs on the farm. Fuel is one of them, as I mentioned, fertilizer, pest control, seed, machinery. I want to say that for most field crops, there has been a corresponding or an even greater increase in the commodity prices.

But as you know, this is not the case for rice. Prices are only slightly up, not nearly enough to cover rising input costs. India is spending billions of dollars, as I mentioned, to flood the world with cheap and dirty rice, while taking the lead on emissions and stor-

ing the world rice market. I hear U.S. rice farmers are even starting to decline, maybe even go out of business.

Can you comment on the situation for rice, and then I have another question I will ask about getting our priorities in order with so much focus on things like cover crops.

Dr. OUTLAW. Sure. As most of the Committee knows, we do work with all types of producers and among all the different types of production systems we work with, rice is the one that is actually not doing very well and not projected to do very well over the next few years, mainly because they don't benefit from the higher prices to offset all these high costs that you mentioned.

All I can say is that the safety net that we have that was constructed with reference prices that were put in place in the 2014 Farm Bill that were using costs, because our group helped a lot with that, from basically the 2012 time period is well out of date. So, we need to start thinking about ways that the reference price could be ratcheted up to take some of the pressure off producers.

Mr. CRAWFORD. Let me ask you this. Would you support indexing reference prices? I mean, the current farm bill, I think reference price as a baseline is 2012, obviously not adequate to meet the demands of input costs today and production costs. Would indexing be a good option in this scenario?

Dr. OUTLAW. We have actually looked at indexing over the last 10 years many different times for different Members of this Committee, and there are approaches that will work. You have to be really careful which indices you tie these movements to, but it certainly would work and offset some of the cost, although be realistic that the indices kind of—they are delayed. But it would still be better than nothing.

Mr. CRAWFORD. Right. So, I mean, I understand that you can't index something based on a future projection. It would have to be based on probably a 3 year history or something like that, rolling average, and I get that. But the fact that we can have a conversation about the potential for indexing to address this shortfall I think is worth mentioning.

On the topic of climate change, I think it is important in the context of agriculture when we start talking about climate change that we kind of establish this, I guess, baseline, if you will, and the difference between environmental activism and active environmentalism.

So, for folks on the outside that have an agenda that don't really understand agriculture, let me just be clear. Farmers produce on land that they derive their income from. It is in their interest to achieve a degree of sustainability so that they can produce next year and the year after and the year after, and also to hand that land down to their families so they can continue to produce. So, any attempt to malign producers is grossly misguided when we rely on our American ag producers to be the mainstay of our food source globally. And think about what is going in Europe right now and Ukraine, and the impact that is having. Historically, the United States has been the bread basket of the world, but we have engaged in policy that now encumbers U.S. producers to the degree that we can no longer be the bread basket of the world. And when we see the calamity that is taking place in Ukraine and the poten-

tial there for them to not be able to provide for themselves and the impact it is having on their economy as the bulk of their production goes to the Middle East and Africa. As Mr. Austin Scott suggested, there is the potential for global hunger that we don't need to exacerbate that problem by engaging in misguided environmental policy.

I appreciate you guys being here today. Thank you.

The CHAIRMAN. Thank you.

And now, the gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Chairman Scott and Ranking Member Thompson, for hosting the hearing today. Thank you to the witnesses for being here.

Senator Heitkamp, welcome back to Congress. Black, Tribal, family, and rural farmers and ranchers need structural reforms that ensure fair market prices and infrastructure supporting transitions to reformative farming. So, what types of initiatives does the USDA plan on designing to incentivize better formative practices for socially and economically disadvantaged and rural communities?

Ms. HEITKAMP. I think you know, Congresswoman, that USDA has made this a new priority where it hasn't been a priority in the past, and that is a tragedy. I can't speak for the Bipartisan Policy Center who I am representing, but I think people need to be educated on the land restrictions that families face in traditional communities where there was way too much paternalism. That is true for Native American families; that is true for some traditional African American farmers.

And so, as we look at USDA practices and how we can reach out and make sure that farming is an equal opportunity for everyone to be successful, and historic, as you know, both in Native communities and in African American communities, certainly the court system has ruled that there have been past inequities. Let's not just try and think about those past inequities and how we fixed those problems. Let's think about how we can move forward to make farming opportunities available to everyone.

But one of the things that I think is critical is this workforce, is this ability to get access to information, and as the Chairman has said, what role can traditional Tribal colleges—our Tribal colleges in North Dakota do a great job in reaching out to local ranchers and farmers. They have collaborations which can make such a difference for Native American, in our case, usually ranchers.

Ms. ADAMS. Good.

Ms. HEITKAMP. But let's look at what the traditional colleges and campuses could do to provide that assistance.

Ms. ADAMS. Great. Thank you so much.

Dr. Humiston, unless there is a real systemic change, we now know that emissions from agriculture will make it impossible to achieve the Paris Agreement of limiting global warming to no more than 2° Celsius. We currently fall short of the target 1.5° Celsius at this current rate. Global food systems are reliant on us to meet this goal.

So, if the climate crisis continues to proceed in the manner predicted, how will it impact the nutritional value of food?

Dr. HUMISTON. Thank you for the question.

That is a great question because we are still doing analysis on exactly what that does mean. Obviously, as crops start moving because of changes in ecosystems due to extreme weather and climate, it is going to make it tougher for farmers to be able to produce some of those crops that are needed. We are also finding that the nutritional quality of some food, for example, if certain crops like stone fruit don't have a freezing point so that they can be produced, we start losing those kind of crops that are so important to our diet.

So, we are still working on that issue, but I think what is really important is that we make available to farmers the ability to see that transition and move towards being able to continue to produce those crops.

Ms. ADAMS. Great, thank you.

So, Mr. Conner, in your testimony you mentioned that food waste accounts for eight percent of all global greenhouse gas emissions. Your team nutrition program provides education about food waste loss prevention. So, would you please explain what the climate impact the food waste loss prevention education has? What does it have on that?

Mr. CONNER. I appreciate the question. I would just say, it is one of our recommendations that are part of the Food and Ag Climate Alliance. It makes some sense, if you think about it. If you produce food, you have the inputs, the labor, everything that goes into the production of that food and it simply gets discarded. The waste there alone is intolerable in that circumstance, but then you add the disposal, and the creation of greenhouse gas emissions that comes with having that product in landfills and other areas. It is something that needs to be addressed and we are proposing a pretty extensive education and training program that begins with USDA feeding efforts to attempt to do all that we can to minimize that, because we think there are gains that can be made in greenhouse gas emissions by simply better utilizing the very food that our farmers are putting on the table for you.

Ms. ADAMS. Thank you, sir.

Mr. Chairman, I am out of time. I yield back.

The CHAIRMAN. Thank you.

The gentleman from Tennessee, Mr. DesJarlais, is recognized for 5 minutes.

Mr. DESJARLAIS. Thank you, Mr. Chairman, and I appreciate our witnesses being here today.

As we struggle with the trucking shortage and supply chain issues, we are experiencing 40 year high inflation, record fuel prices, fertilizer shortages, crippling and overburdensome EPA regulations that creates even more uncertainty. We are sitting here today having a second climate change hearing, and I guess it is a little frustrating, considering our farmers are climate champions.

But Mr.—Dr. Outlaw, I am sorry, some of the environmental community have continued to villainize farmers and ranchers even though modern American agriculture is the most sustainable in the world, and clearly provides climate benefits. Our producers are

great stewards of their land, as modern agriculture delivers benefits including reduced inputs, healthier soil and water, and increased carbon sequestration.

Do you believe that farmers and ranchers are currently being given the credit or recognition that they deserve for practices that generate climate benefits?

Dr. OUTLAW. No, I do not. As you said perfectly, our producers spend their livelihood in keeping the land in the most productive manner they can, and over my 30+ year career doing policy, I have witnessed a lot of different groups take aim at commodity producers because they would either want the money or they want to try to bust everything up so that things are different. In my mind, just like you said, I believe that our producers are the most productive in the world, and they do have a spot where they absolutely care about the environment, absolutely care about productivity, and keeping the land in production for their children to take over.

Mr. DESJARLAIS. Let me stay with you.

We know producers are facing a lot of uncertainty this year, particularly in light of the situation in eastern Ukraine—eastern Europe, rather, and while some of the headwinds farmers are facing may be outside of our control, there are commonsense decisions we make here at home that could help our farmers, such as producing more domestic energy or ensuring that producers have access to the chemistries they need, rather than letting EPA pull labels based on unsound science. Despite high commodity prices, the farmers I talked to are concerned about the margin they will make in light of soaring costs.

Speaking from your experience with the 94 representative farms when farmers are facing narrow or negative margins, what are some of the areas that they cut back on, and how does this affect production and potential climate impacts?

Dr. OUTLAW. That has been the one thing that I didn't understand about the environmental community attacking production agriculture, because if they are not successful or not making money, one of the places they do tend to cut corners on is some of the conservation practices that they would do otherwise.

So, that is one of the areas where obviously practice-wise, they tend to cut back on doing the tiling for their land, or they are doing terracing, other practices that would make the land more productive in the future. But they also cut back on the family living withdrawals that they take from their operation, just trying to make ends meet.

Mr. DESJARLAIS. I appreciate that.

To our other witnesses, broadband is an issue that was touched upon in today's testimonies. When this Committee speaks on broadband connectivity, it is normally a Rural Development issue. I believe this needs to be part of the climate solutions discussion. Can either of you comment on how increased broadband connectivity could increase innovation and productivity for farmers at the field level, and wouldn't this be a huge step forward as it relates to precision agriculture technology?

Dr. HUMISTON. Yes, thank you.

We have some exciting new technologies coming online, but a great many of those do require bandwidth, and that is a huge miss-

ing piece in much of rural America. We are working closely with a variety of public and private partners to try to get repeaters and boosters and increase that bandwidth out there. But we are also trying to work with entities like our National Labs and some of our very strong engineering programs to really reduce the need for the bandwidth in some of this technology, too.

But at the end of the day, it all comes down to funding and having the infrastructure out there.

Mr. DESJARLAIS. Thirty seconds, if you would care to comment?

Mr. CONNER. Congressman, certainly you have identified a key problem here. Broadband is absolutely necessary for modern agriculture, for precision technologies that are a necessary part of any climate debate. Without it we have one hand tied behind our back.

Mr. DESJARLAIS. Thank you all, and Mr. Chairman, I yield back.

Ms. HEITKAMP. If I could just comment. I think we talk about broadband, but let's not leave wireless behind, because having the ability to go out into the farm and use your cell phone is critical, too.

Mr. DESJARLAIS. Thank you.

The CHAIRMAN. Thank you very much.

The gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is now recognized for 5 minutes.

Ms. SPANBERGER. Thank you so very much, Mr. Chairman, and to our witnesses, thank you for being here. And certainly as the Chair of the Conservation and Forestry Subcommittee, every hearing we have we are highlighting the role and the important role that our farmers and producers have, not just in feeding America, feeding the world, but also in nurturing our planet. Certainly as Ranking Member Thompson said, farmers are climate champions, and so, I am a little bit surprised to hear so many comments about unnamed groups that are challenging farmers because in this Committee and in our Subcommittee and with the witnesses we have today, and the farms I visit across my district, what we talk about every single time is how farmers are leading the way in practices that are so important not just to their bottom line, not just to their community, not just to the health of their land, but to our country and the world. And in fact, there are documentaries talking about how important and how vital and integral and transformative our farmers and producers are. They are leading the way not just in the United States, but throughout the world. And so, I want to thank them for that.

But I do want to talk about the issues that they face and the challenges that they face. Certainly—and I will turn to you first, Senator Heitkamp. When we are talking about some of the incredible conservation practices, regenerative farming practices, rotational grazing practices, so many of these practices can be trial and error. There is so much important research going on, but yet, there is attrition on the ground for trained technical assistance providers who really can provide site specific, soil specific solutions to implement conservation practices effectively. We know between Fiscal Year 2004 and Fiscal Year 2018 staffing levels at the NRCS have declined 19 percent, and unlike other Federal agencies, as I know you are aware, Senator, 98 percent of NRCS staff are located out-

side of Washington, D.C. They are located by our farmers and producers. They are located in our rural communities across America. And as such, when we have attrition at NRCS, it is felt disproportionately by those who are seeking support and help as they implement conservation practices on their land.

So, certainly, Senator, as part of your testimony you focused on the need to expand technical assistance through workforce development. I am personally an advocate for increased funding to provide higher paid NRCS employees, but I am concerned that increased salaries alone certainly won't contend with the challenge.

What steps should we be considering taking as we are looking towards the 2023 Farm Bill so that we can better develop a pipeline of staff, and how could we potentially leverage federally funded resources, such as land-grant universities, to this end? And I will start with the Senator.

Ms. HEITKAMP. Well, I am such a believer that we have to keep the people who understand rural America in rural America, and in order to do that, we have to make sure that they can earn a living. But Congresswoman, I am just urging you all not to reduce local staff. If you want to get this done, if you want to expand American agricultural productivity, do what we have always done so well. Our land-grant colleges, getting our extension agents out there. Let's build a pipeline from FFA. One of the growing youth groups is really Future Farmers of America. They are our future leaders. They care, and so let's make the commitment today to keeping people helping rural America and rural farmers.

Ms. SPANBERGER. Thank you so much, Senator.

Dr. Humiston, if you care to comment on that question at all from your perspective as well?

Dr. HUMISTON. Well, the Senator did a great job on that. I would add to it that that pipeline is really critical, and we have to start young.

One of the challenges we have is we actually have a lot of great jobs in the agriculture and natural resources sectors, but too much of the public think the only jobs are farmer or farmworker. There are literally thousands of other jobs, and we have to get people to understand that and start looking to those. So, we are partnering up with our community colleges. We are starting in grade school with 4-H. I am a 4-H as well as a Future Farmer of America alumni, and it really does make a difference even to get urban and suburban kids interested in looking at the agricultural sciences and opportunities throughout the supply chain. Things like regional food systems gets people interested. Look how many cooking shows are on TV now.

Ms. SPANBERGER. Thank you so much.

Certainly in one of the counties I represent—well, many of the counties I represent have tremendous programs in the high school, but one of the counties has just implemented a specialty center that will begin next year focused on environmental science, focused on soil health, and hopefully will create a pipeline for folks going out into the field, either continuing to work their own lands or support others.

My time has expired. I have so many more questions. I am grateful to the witnesses for being here, and Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman.

Let me go right to Dr. Humiston. You were talking about fuel loads and forestry, *et cetera*, obviously a very, very big concern in my district in California, western states, as you know, just one fire burned approximately 1 million acres last year, the Dixie Fire, and many others in the six-digit range. So, your comments are very timely and very appreciated in that regard.

So, how do we further the utilization of these products? You mentioned it is the end-use that is the problem, really turning it into something—I mean, we can harvest it, we can haul it, we can stack it somewhere, we can put it on a deck somewhere, but there doesn't seem to be a home for utilizing it. So, does that really boil down to investment in biomass plants to make electricity, or what is on your mind on that?

Dr. HUMISTON. Well, I am not a fan of biomass plants to produce electricity, only because it costs several times more than producing electricity in other ways. But we have a lot of bioproducts that could be profitable centers for both forestry and agriculture, bioplastics, cellulosic nanofibers, biofuels, great many programs, and advanced wood products.

The challenge is the lack of infrastructure to get it from the forest or the farm into that final product. And I am thrilled to say in California, we have done some really exciting things recently. I have been co-chairing an effort with the Rural County Representatives of California, RCRC, which is a statewide group of the 39 rural county supervisors in our state who have actually themselves stood up a financial entity and created a supply chain from forest through manufacturing to markets in Asia for wood pellets. And now because of that example, we are able to get other folks to look at these same kind of supply chains and link them up in frameworks that allow us to do more of that both for forest and ag biomass.

Mr. LAMALFA. What is the foreign use of those wood pellets?

Dr. HUMISTON. It is basically Japan and South Korea trying to wean themselves off nuclear, and it is a short-term solution. Wood pellets are not a long-term fix, but they are a great solution in the next 5 or 10 years.

Longer-term, we really have to be looking at the use of biomass for, as I said, bioplastics and other uses, particularly the advanced wood products which sequester carbon for decades in our buildings.

Mr. LAMALFA. Why can't we be looking at for generating electricity in our own country more over having to, we are having a situation with natural gas right now and with coal and things like that. Why wouldn't this be—and indeed, the bugaboo you ran into with the other—green with solar and wind. Those are not 24/7 sources of power. They are, at best, a portion of the day.

Dr. HUMISTON. There is a role for biomass being burned to produce electricity to be part of that power 24/7 where wind and solar sometimes are not available. There is definitely a role for that, and there is a real role for co-gen where you have biomass being utilized for electricity that has been used within a very close arena, which often can pencil out. But in the past, we have done

work for several years now where it has been very clear that producing electricity from biomass, even from established plants, does cost several times more than that same electricity from other sources. It is just not the most economically efficient use. And frankly, as we try to clean up the huge amount of biomass in our forests, I believe we have to find profitable ways to do that or we won't get the job done.

Mr. LAMALFA. Well, certainly as far behind as we are on our forest management, fire suppression is costing us billions and billions more each year. The costs we are seeing in air quality, water quality, loss of wildlife, loss of the asset itself, I think it would be not out of line for the Federal Government to pay to remove this material and turn it into something that could be used.

Just talking about it from a point of forest health.

Dr. HUMISTON. Actually, you are right on. If we could get our forests back to a healthier state—which actually means considerably less tree density and biomass than we currently have in most of our forests in the western states, we would have not only less risk of fire, we could produce more water. We have studies showing that the Sierra could produce 15 percent or more water than it currently does because of unhealthy forests.

And then, of course, there is wildlife habitat, there is recreational opportunities, which is a huge economic sector in many of our western states, all of which would benefit from healthier forests.

Mr. LAMALFA. Music to my ears on that water side there, because obviously we are very dire—we ought to be talking about more of that in this Committee. I would suggest, Mr. Chairman, is that California is not going to be producing many crops with acres being zeroed out this year. We have hundreds of thousands of acres being zeroed out. It is the second year in a row that number is increasing. We are not going to have these products that all of our country relies on from California, so that is big.

So, thank you for your testimony.

Dr. HUMISTON. Thank you.

The CHAIRMAN. Thank you.

The gentlewoman from Ohio, Ms. Brown, is recognized for 5 minutes.

Ms. BROWN. Thank you, Chairman Scott and Ranking Member Thompson, for holding this hearing, and thank you to the witnesses for joining us today to review the role of the USDA programs in addressing the urgent climate crisis.

Congress considered and passed the 2018 Farm Bill on a bipartisan basis, and it provided significant investments to incentivize sound farming practices that not only reduce pollution, but also make our farms more resilient to the changing climate. We must recognize that climate change is a clear and imminent threat to our planet.

As stewards of this planet, we have the moral responsibility to protect the air we breathe, the water we drink, and the world we leave behind. To stay ahead and competitive, we must be smart about how we use and manage our farmlands, and American farmers and ranchers can be an active partner in this endeavor. I look forward to working with all of you as we look for climate solutions that work for everyone.

Mr. Conner, what do you believe are some of the most helpful tools from the 2018 Farm Bill to help producers address climate concerns while also supporting their operations, and how can they be built upon to better work for producers?

Mr. CONNER. I will answer that two ways, Congresswoman.

First, I think the 2018 Farm Bill provided an excellent foundation in terms of the Title II programs. This is technical assistance; this is financial assistance for farmers to do good things on their farms that may be just on the edge of viability in terms of economics, and the bill provided great assistance. Many of our FACA recommendations that we put forth today and talked about today follow the model from those programs in the 2018 and past farm bills. We believe producers are very comfortable with those. We believe they are programs that help a variety of farmers, and we would, for that reason are encouraging additional resources be added in the next farm bill to Title II and a number of those efforts that have been identified today.

Ms. BROWN. Thank you very much.

While we continue to fight climate crisis together, we must ensure that resources are available to everyone, particularly underserved farmers.

So, Ms. Raygoza, you have used a number of programs within the USDA and you have touched on some of the barriers that you faced while using these programs. As it relates to the programs that you have used, what programs do you think work well and which do you believe need improvement to better help historically underserved farmers?

Ms. RAYGOZA. Yes. The programs that worked really well for our farm was the EQIP Program. So, for example, for conservation, for cover cropping, we participated in the organic program but what worked well for us was that we were able to apply those programs to all of our acreage, and I think what we can do to improve is to make them—like I mentioned, the cost available or the funding available up-front. Also, for many of these programs, an issue for many farmers is land access so we can implement these programs, allowing the farmer to have a short-term lease and be able to access these opportunities as well. Because many young farmers have short-term leases, we need to be able to have that as an option to implement these programs.

Ms. DUNCANSON. Can I just chime in on that also very quickly? On our farm, we utilize EQIP as well as a CSP contract, and I would like to just echo what has been mentioned here before about the fact that those who have helped us try some practices here on the ground that have been beneficial to our resiliency, but the application process itself is tedious and very time consuming, and you definitely need to have technical assistance to go through there. We are very lucky in the county that we live in that we do have expertise to help us, but I don't see those folks staying around in this area. They will move around to other areas, which is fine. But I do worry about their replacements, so I would like to just say that Senator Heitkamp's issues about using all the different programs and colleges at all different levels throughout the country to get people involved in technical assistance to provide it on the land

from a food point of view as well as from a production point of view.

Thank you.

Ms. BROWN. Thank you, and my time has expired, so thank you so much, and I yield back.

The CHAIRMAN. Thank you.

The gentleman from Illinois, Mr. Davis, is recognized for 5 minutes.

Mr. DAVIS. Thank you, Mr. Chairman. I appreciate this hearing happening, but my farmers and producers are not talking to me about climate change issues. They are talking to me about the ever-soaring input costs, how is this Administration, how are we in Congress addressing those high costs and inflationary pressures? What is the Biden Administration doing to tone down the rampant spending? And reports just this week show average gas prices in the U.S. have risen 22 percent, and that is just in 2 weeks. And yet, the Biden Administration refuses to uphold the Renewable Fuel Standard, an immediate solution to lower emissions and reduce costs at the pump. Inflation is now at over eight percent. Ag input costs are rising, as I mentioned, and showing no signs of slowing.

And it is not just that. This Administration has abandoned our farmers in so many ways, be it through pushing a new regulatory scheme with their WOTUS rewrite, abandoning President Trump's Navigable Waters Protection Rule, creating new obstacles for pesticide use, and failing to follow through on existing trade deals.

The ag economy is hurting across the board. They are concerned about whether or not they are going to be able to afford to plant a crop this year. And look, we can always talk about addressing climate change issues. I mean, America deserves credit and our farmers deserve a lot more credit for what they have done to reduce greenhouse emissions.

Can any of the witnesses please tell me and speak to the way inflation, these input costs, and maybe even these reckless policies make it impossible to predict what a market looks like months from now, yet alone a year from now when we start talking about this farm bill? Our farmers want to know if they are going to be able to survive before we get to the next farm bill.

Mr. Conner, would you like to respond?

Mr. CONNER. Congressman Davis, thanks for that opportunity.

I do not disagree with you that the coffee shop talk today is not climate change. It is world events. It is fertilizer prices. It is a number of things that are literally sort of in your face, and I concur with that.

I will say, though, that we find great interest to—from our producers when we start talking about climate in the context of incentive-based, in the context of additional resources and revenues in your pocket. And you know, that is in desperate need out there in rural America, given the challenges that we face. Farmers need a better shake, and we are doing this right now to try and give them that, and we wouldn't be sitting here addressing these concerns if it didn't have that strong, strong potential associated with it.

On the biofuels front, I am well aware of what you are saying. The number of facilities out there that are offering the higher-oc-

tane blends is dismal out there in rural America, and you know, we are missing a great opportunity there. We need that infrastructure, and some of those investments we are talking about in this climate debate, to raise those numbers, because right now, we cannot have much of a market impact when I believe the figure is like 3,000 retail outlets out of tens of thousands of outlets actually offer these higher blends. And that is totally inadequate. We have to change it.

Mr. DAVIS. It is. Retail outlets are not going to invest in offering new choices if they don't know if the Administration is going to follow the existing law into the Renewable Fuel Standard. There is no certainty. How in the world can you expect somebody in the private-sector to make a business decision when they don't know if decisions here in Washington are going to actually follow the law? And that is what is frustrating to us. I mean, we have heard promises from Administrations in the past and the current Administration about what they are going to do to help our ethanol producers, what they are going to do to help our farms. They are not doing it, and that is what is frustrating. We are in a kind of spin cycle of whether or not to be able to get these products out into the marketplace.

Dr. Outlaw, did you want to make a comment on the input costs or any of the other issues that our farmers are facing?

Dr. OUTLAW. Well, obviously we have done a couple of studies, one from Congresswoman Letlow on the impact of fertilizer prices on all of the farms, and it has been huge. We did an analysis just looking at nitrogen as well, and it was big.

The honest answer is that I hope that the prices that the futures market is reflecting come true, because if not, we are going to have a big disaster because the costs have gone up, in some cases 28 to 40 percent across the board for different types of commodities, and that will put a lot of people in very dire straits.

Mr. DAVIS. It is going to put them in dire straits. Imagine if we had to compete against our global competitor where we see war ravaging in Europe, and imagine if there weren't any issues with the Brazilian soybean crop. But that cannot be permanent, and we cannot allow these costs to be permanent.

I yield back, Mr. Chairman.

The CHAIRMAN. Thank you. Thank you very much, Mr. Davis, and I do want to assure you that President Biden has not abandoned our farmers. And as you recall, Secretary Vilsack was in here and spoke very pointedly about the things that this Administration is doing.

The gentlewoman from New Hampshire, Ms. Kuster, is now recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman, and thank you for holding this important hearing, the very first hearing dedicated specifically to addressing climate change in our Committee. I am excited to continue this discussion as we look to how we can continue to utilize the farm bill to reduce emissions in the agriculture sector and maximize how our farms and forestlands store carbon.

I always like to begin these conversations by recognizing the incredible work that farmers and foresters in New Hampshire and across the country are already doing to mitigate climate change,

and as we look ahead to the reauthorization of the farm bill next year, this is an excellent opportunity to take stock of what is working in the current farm bill and what we can do to improve and better serve our farmers and producers.

So, in that vein, I believe one of the most important things we can do to address climate change is to keep farmland as farms and forestland as forest. That is no easy task in states like mine where land values are rising and development demands are significant. These factors can box out young and beginning farmers in particular.

Thankfully in New Hampshire, we have a wonderful organization like Land for Good that do an incredible job providing technical assistance to beginning farmers and helping them connect with available agricultural land. But the fact remains we need to do more to focus our nationwide effort around farm transitions and ensuring that the next generation of farmers get off to the right start.

Ms. Raygoza, your testimony perfectly exemplifies this need. It would have been easy for you to get discouraged and find another line of work when land access presented so many hurdles, but I am glad you hung in there. You mentioned you were able to make use of FSA farm ownership loans, but could you comment on other ways that we can grow the farm bill to help with these land access challenges, and what is the National Young Farmers Coalition's vision for making access easier for new farmers?

Ms. RAYGOZA. Yes. So, for me and my farm, it was very important for us to be able to have access to land. We did struggle to apply, and so, the application process could be streamlined. We appreciate the microloan program that is helping many farmers get started, so we would like to see a continuation in those programs for microloans with the streamlined application process for farmers to access those programs.

Also, equitable land transition so that farmers can be able to transfer into land and have access to those as well.

Ms. KUSTER. Great.

Ms. RAYGOZA. Yes, thank you.

Ms. KUSTER. Go ahead. I also—sorry, our time is short, so I am going to cover the role of family forest operations as well in addressing climate change.

New Hampshire is the second most forested state in the nation, and we know very well that working forests already play an important role as carbon sinks.

Recently, the Bipartisan Policy Center's Farm and Forest Carbon Solutions Task Force released their policy recommendations in the thorough report that we have heard about today. I was pleased to see excellent recommendations for better utilizing forests as natural climate solutions.

One recommendation that stood out to me was the need to modernize and expand our seed collection and tree nurseries. Doing so would not only help reforestation efforts in the aftermath of fires, but could also help prepare for adapting our existing forestlands to climate and weather patterns.

Senator Heitkamp, I appreciate your leadership on this report and wondered if you could expand on how BPC would urge Con-

gress to strengthen seed and nursery collections through the farm bill?

Ms. HEITKAMP. I think that it is the single most important part of our recommendations in forestry that we make sure that we have the seedstock, we make sure that we are building resiliency. And so, I would say that in the whole—I mean, we have to take care of our forests. We have to stop the forest fires. We have to look at what we are going to do to reforest our communities, especially for the private landowners who are doing the job so adequately.

I teased Saxby. I said, we joke in North Dakota that our tree is a telephone pole, and so he really—I led the way in terms of forestry, making sure that we were—that you all were well-represented. But I think that you have to really take a look at the whole span, whether it is what is happening right now with forest fires and the impact of climate, but also how do we build back our forests and our industry in a way that is going to be sustainable into the future? And so, this seedstock is so critical and important, and that is what we heard, and that is why we built the recommendation.

Ms. KUSTER. Great. Thank you so much.

With that, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you.

The gentleman from Georgia, Mr. Allen, is recognized for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman, and I don't want to sound like a broken record, but as has been stated here earlier, my folks back home are not tuned into this hearing. In fact, I have very few questions, but I can tell you what they are saying back home. I will tell you what I see is the biggest threat to this nation.

Right now the world is on the edge of global upheaval, and today's hearing focuses on none of our farmer's critical issues, not one. Two of the world's leading suppliers of wheat, corn, and fertilizers are at war. Commercial activity in Ukraine ports has not resumed since Russia's invasion, which could leave to an inability to export their commodities.

Folks, my farmers are trying to figure out whether to plant. I am begging them to plant. It is planting season, and they don't even know what fertilizer is going to cost because it is going up every single day. It is time for this Administration to engage and this Committee to engage. The Administration continues their shortsighted war on fossil fuel, which has increased our dependence on foreign energy. What is amazing to me is we are sending \$75 million a day to Russia, not counting what Europe is sending. We are financing the dadgum war. I mean, folks, you can't make this stuff up.

These attacks on production of fossil fuels here in America and our domestic greenhouse gas emissions are, in part, responsible for, first, the global reliance on fossil fuels in Russia, and the Russian war effort, and second, when it come to the reduction of American greenhouse gas emissions, all that does is cause a net increase in global greenhouse gas emissions.

I have tried to be patient with the Administration. I recognize that they have their priorities, but folks, this body and this Congress and this Administration better get our priorities in order.

Certainly, one is a \$30 trillion debt. We are talking about spending more money, more money. Where is it going to come from? In order to have that, you got to have national security. How about jobs and the economy? Where do you think the money comes from? Education, healthcare, we got a lot of issues to address here, and most of it is dealing with nutrition and the farm.

Right now—well, I had asked the President—40 Members signed on to a letter to ask the President to restore the previous fossil fuel regulatory environment and production incentives that we had in this country that made this country energy independent and the most powerful country in the world just 18 months ago. We had an oil war between Russia and Saudi Arabia at \$7 a barrel and going lower, and look at today. Folks, it is out of control and we have let this happen because we got our eye on the wrong ball.

Dr. OUTLAW, when we [inaudible] in the U.S., it sends a market signal to U.S. competitors to increase their production, which usually leads to more negative environmental consequences. We had the situation in Brazil that plowed up half of the [inaudible] for carbon dioxide. Do Federal regulators, USDA, are they taking into account the impact globally of this regulatory situation?

Dr. OUTLAW. I can't speak to all of that. I don't believe that we are focusing more on our producers, and I don't think that what is happening in other countries is something that has been looked at very closely.

I do know that some of our biggest competitors like Brazil have their own environmental issues that if commodities start being traded, looking at their footprint, they would be in a little bit different situation competitive-wise than they are currently.

But no, I don't believe—to answer your question, I don't believe so.

Mr. ALLEN. All right. Well, I am sorry. I am out of time. I yield back, Mr. Chairman.

The CHAIRMAN. The gentlewoman from Maine, Ms. Pingree, is now recognized for 5 minutes.

Ms. PINGREE. Thank you very much, Mr. Chairman, and thank you for holding this important hearing.

While I know we are all focused on the activities that are going on in Ukraine and our hearts go out to those people and hope that we can continue to do more, we also understand that could have a huge impact on energy, on commodity prices, on availability of food around the world, it doesn't mean that we shouldn't be holding this hearing today. These are also very important issues, and I really appreciate that you are doing that.

So, my questions. Senator Heitkamp, so nice to see you again. Thank you for the work that you have been doing. One of the recommendations in the Bipartisan Policy Center's report was to streamline NRCS process for adopting new conservation practice standards. Currently, the practice requires stakeholders to petition for an interim practice, and then NRCS studies that interim practice for 3 years or more. This is something I have been interested in, as I have been pushing for NRCS to support compost, which is finally on its way as an interim practice. But could you talk a little bit about why streamlining the process is important as we think about climate change, and how do you think NRCS should ap-

proach developing new conservation practice standards in a way that supports innovation without undermining their scientific credibility?

Ms. HEITKAMP. Well, you have already heard from the producers here that the application process is way overbearing and yes, they are grateful for the help, but why—I mean, farmers don't want to be paperwork people. They want to get out and farm. And so, the first thing I would look at is even on those proven programs, making sure that the application process is streamlined and available.

But if we really believe that we have an emerging crisis in climate, why is [inaudible]? Why shouldn't we basically be early adopters and get out there and get it done? And so, we really believe that USDA has done a great job in designing programs, in implementing and researching programs, but they need to have an implementation date that is much quicker and they need to have an implementation plan that deals with, as I have been a broken record here, workforce on the ground, technical assistance on the ground, making sure, and then evaluate. Get as many adopters out there, evaluate, and you can always walk back and say that didn't work the way we thought it was going to work. Let's try something else.

And so, let's not study something to death to the point where we don't get the job done.

Ms. PINGREE. Yes, thank you so much. I really do appreciate the work you are doing.

Ms. DUNCANSON, I want to ask you a question, and just want to say I am a Minnesotan by birth myself, yah, sure, you bet ya. My family—my mother was born on a farm in Kenyon. My grandfather came from Norway, like so many Minnesotans, and my uncle farmed it for years. Also, I know you are not that far away from St. Peter, so my brother and sister went to Gustavus. So, we got southern Minnesota covered there.

But I want to ask you a question. We are making a lot of progress on aligning good conservation practices and crop insurance, but I think there is still a lot of work to do. The report included in your testimony noted that there is research on this currently underway through the 508(h) process, which allows third parties to propose new crop insurance products with the goal of eventually opening the door to new insurance rating methodologies that explicitly consider a farmer's conservation practices. So, could you talk a little bit more about the effort and what you hope will come out of the process?

Ms. DUNCANSON. Yes, thank you very much, and I appreciate your pointing out the great State of Minnesota and your connections to it.

Yes, that process has been part of what we have worked towards and are hopeful about that will get out on the landscape and try to see what really is resilient and working and could be incentivized or recognized as a way to make crop insurance continue to be part of our resiliency plan. Keep in mind that for so many of us, crop insurance is the way to make sure we can farm another day.

We also need to make sure that crop insurance kind of platform is available to all farmers, regardless of what they grow and where

they grow it and how they grow it. So, we are looking forward to using some of the pilot that we are finding out about right now and also with the PACE Program, which is a split-application of nitrogen opportunity, a brainchild of Ellen Eichhorn, and just see where we can go with that.

Ms. PINGREE. Great. Well, thank you so much. I appreciate the work you have been doing, and your representation of farmers.

I think I only have 20 seconds left, so I will yield back my time and submit my other questions for the record. But thank you to all the panelists. You have been very helpful, and we really appreciate you all presenting your side today. Thanks so much. I yield back.

The CHAIRMAN. Thank you, Ms. Pingree.

The gentleman from South Dakota, Mr. Johnson, is recognized for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman, and I want to pick up or add on to the conversations that Ms. Kuster had started on forest products and good forests.

I will start with Senator Heitkamp and then maybe if we have time left over, I might have some questions for Dr. Humiston.

But Senator, you talked in your testimony a lot about the power of production agriculture to help with some of these things, but I noticed your organization title also has forest in its name. And so, talk to us about the role that forests, and particularly forest products, can play in gathering up this carbon, sinking it, holding on to it for a long time.

Ms. HEITKAMP. What better way to sink carbon than to keep it in the wood, right? I mean, we recognize that forests can be such a big part of this.

I want to just talk a little bit about what concerned our Committee and our bipartisan effort. Number one, forest fires, and there was a lot of discussion about USDA programs building greater resiliency so that we don't basically lose the carbon sink in a forest fire. And so, we want to modernize seed collection and tree nurseries. We want to implement an all of government approach. I think that was one of the concerns, and also, working with state governments. You heard New Hampshire, Maine is a huge forestry state, Georgia. Our states, not so much, as you know, although you have the Black Hills. You know, and I think the cross-boned re-initiatives to improve health and carbon sequestration potential of rangelands, and so, there is a whole ecosystem that we talked about.

One of the things that we did, pretty effectively, was sit down and say if we are going to—and we haven't talked a lot about it here today—but if we are going to sell carbon credits, how do we guarantee that those are real? And certainly, the forestry industry today is on the leading edge of carbon credits and making sure that we are doing the research and giving the certainty on carbon credits that can be bought on the market where we actually see a climate result. And people—I mean, we heard from very large folks who would buy a lot of credits if they were sure that these credits would be, in fact, legitimate in terms of carbon capture. We think that the early adopters are going to be in forestry, and so, there are a lot of real opportunities out there to have those conversations. And the American forestry industry, whether it is people who

provide basically work on public lands or those who have their own private lands, stand ready to do this, and that is the exciting part is everybody is in on it.

Mr. JOHNSON. You are right about so much of that, Senator, as well as the point that the Black Hills has so many trees. But don't sell North Dakota short. I have seen the trees in Medora and they are both beautiful.

So, you talk about the—I think you talk about the health of the forest. I think that is good, but talk to me specifically about forest products, because we are losing so much of that forest products industry in this country, and I think that can be the real value add, because not only do you take the long life of these trees, but you extend the ability of that wood to hold carbon when you have them in telephone poles, as you mentioned, and chairs and tables.

I mean, what role does the forest products industry play?

Ms. HEITKAMP. Huge, and you have already heard it from the California perspective. The important part of it as we were talking about biomass as an energy producer, but how about advanced manufacturing and making sure that those forest products are actually being utilized and used to produce furniture or used to produce building materials right here in this country. I think I would defer this question to our great colleague from California. They are doing some amazing research there, and I think her testimony really spoke to this already, Congressman.

Mr. JOHNSON. Yes, great. Let's do that, Senator. I have 45 seconds left, Doc. Talk to me about any research that is being done at the University of California on innovation in the wood products and forest products industry.

Dr. HUMISTON. So, many of the engineering schools have departments of material science that are doing a great deal of work finding all kinds of new uses for biomass of all sorts.

I have to say, basically anything that is made from fossil fuel can be made from renewable biomass, and as we start moving towards that bioeconomy, we are going to create new profit centers for our farmers, our foresters, and even more importantly, perhaps, our rural communities, most of which have not really recovered from the 2008 Great Recession. And this is a huge opportunity we would be foolish to ignore and not pursue.

Mr. JOHNSON. I wish we could go deeper, but I am out of time. Thank you very much, and I yield back, sir.

The CHAIRMAN. Thank you.

The gentleman from Arizona, Mr. O'Halleran, is recognized for 5 minutes.

Mr. O'HALLERAN. Thank you, Mr. Chairman and Ranking Member, for organizing this important hearing.

Arizona has been hit particularly hard by climate change. We are in the midst of an extreme drought that has been worse since 1,200 years ago, according to a lot of scientists. On top of this, the decades of outdated wildfire practices have led to a concentrated, dense forest that have left much of northern Arizona. I have all or parts of the six National Forests in Arizona, along with the Grand Canyon, so I have watched as Arizona's wildfire season has started earlier and earlier each year.

I am happy to see an increased focus on fire prevention, but our current mitigation efforts can only go so far. The Infrastructure Investment and Jobs Act (Pub. L. 117-58) accounted for \$6 billion for forestry programs, and I am encouraged by Secretary Vilsack's recent announcement in Arizona to use some of the funds to implement a 10 year strategy to confront the wildfire crisis.

Dr. Humiston, thank you for your testimony. Fire and drought are major concerns of many Arizonans and Americans, particularly those in northern and eastern Arizona. More fire severe and drought severe conditions are clearly linked to climate change. Can you speak to how the farm bill can support a collaborative, economically sustainable approach to addressing these concerns?

Dr. HUMISTON. Thank you for the question.

There are several ways the farm bill can assist with this. One is to just make sure that our U.S. Forest Service has the ability and expanded ability to enter into long-term master stewardship agreements with local government and economic development organizations to make use of that biomass, and that we keep pursuing the technologies to enable us to both get that biomass out of forests without causing environmental degradation—and we can do that. We are finding the tools; we are finding the methodologies. But then also look to entities like our Rural Development and their ability to finance some of that supply chain and infrastructure and manufacturing base that we need to make good use of that biomass. That is just a few examples, but there are many, many more.

Mr. O'HALLERAN. Thank you.

During the last farm bill, we did try to address the extension of contracts and also some of the other partnerships. We have to go further this time.

Senator—

Dr. HUMISTON. Could I add one more thing? I am sorry.

Mr. O'HALLERAN. Sure, you can.

Dr. HUMISTON. I am so sorry.

I forgot to mention that one of the things we are doing that I think is going to be of critical importance moving forward is we are making use of our cooperative extension advisors in new and different ways to help facilitate that organizational need to build those supply chains and help stand up that manufacturing base and work with our local communities. All too often, our small rural communities don't have the capacity or the people to try to undertake such big projects, such construction and development projects, and that is what rural cooperative extension is perfect for. We are placing new advisors throughout California to do exactly that right now.

Mr. O'HALLERAN. Thank you, and I agree with that thought process.

Senator, the USDA's Natural Resources Conservation Service programs have a record of success in advancing conservation, forestry, and renewable energy efforts to achieve positive climate and economic outcomes. However, as we work towards an effective farm bill, we must take a critical approach to these programs and adapt them to effectively address present day issues.

How can we improve USDA's NRCS programs, and do you believe that these are changes that would make the NRCS programs

easier for historically underserved producers to use, and what about the Native American producers in particular? Thank you, Senator.

Ms. HEITKAMP. I know that I keep coming back to this, but it is about workforce. And when I was in the Senate, I was Ranking Member on a committee that looked at the retiring workforce. We have to build workforce. We have to deploy workforce, and we have to deploy workforce where we haven't before.

We have the technologies. We had a whole committee of soil scientists talking about do soils actually embed carbon, and yes, we can do all of this. But, if we don't get people to adopt the practices that are being recommended through NRCS, and how we do that is we get workforce on the ground. And so, I would say find a collaboration with Tribal colleges. I know you have some great Tribal colleges in Arizona. They are reaching out to your land-grant colleges. Make those collaborations, incentivize outreach to traditional African American schools, and get the workforce on the ground. People will do it if they know how to do it.

The CHAIRMAN. The gentleman from Indiana, Mr. Baird, is now recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman and Ranking Member Thompson, for having this important hearing. I really always appreciate you having such knowledgeable witnesses on our panel.

But, I think we are all concerned about the Ukraine. We also have tremendous respect for their extraordinary courage to defend their homeland. And having said that, our hearts go out to what is taking place in that country.

I think we are also concerned, as many of my colleagues have mentioned, about the impact that the current economic situation is having on our agricultural industry, and we need to recognize that as we move forward with our farm bill.

I have also appreciated hearing many of the witnesses indicate today that agriculture can play a major role in this climate mitigation kind of work, and I think that is exciting for agriculture. Cover crops, no-till, forestry management, all of those are tools that the farmers and ranchers have been using and can use in the future.

Another area of interest to me is in the livestock area whereby you can use feed ingredients to reduce enteric emissions from cattle, for example, methane, the gas release and so on. So, I think we need a pathway through the system to approve products like that, maybe through USDA rather than FDA so that it is not considered an antibiotic or something like that, but rather a feed ingredient.

But having said all of that, I really see biotechnology as a major factor in what happens in agriculture as we try to produce the food and fiber for our ever-increasingly hungry world. So, I am just going to throw out one example when I am trying to talk about biotechnology. Genetically engineered nitrogen-fixing bacteria can be used as a biofertilizer, and it really enhances a plant's ability to take up nutrients and so on.

So, my questions are going to be to Mr. Conner and to Ms. Duncanson. So, Mr. Conner, would you care to elaborate on the importance of biotechnology and research and so on as we move forward in agriculture?

Mr. CONNER. Congressman, thank you for the question, and I will say I think it is fundamental. We focused a lot on this hearing on Title II provisions in the farm bill, which are the conservation provisions, and they are very, very important. But one of the things that the Food and Ag Climate Alliance will also be focusing on is many of our recommendations are in the research and development area. We do believe that if we are going to meet the challenges that we have in front of us with the criteria that we have laid out in terms of helping producers, that technology and research are going to be key to that, and we do look forward to working with this Committee in the research title of the farm bill, as well, in making sure that we are on the right path to meet our objectives, which is at the end of the day, do good by the American farmer and do good by the food security that we enjoy in this country.

Mr. BAIRD. Thank you.

Ms. Duncanson?

Ms. DUNCANSON. Yes, thank you very much for that question, and just to echo upon what Mr. Conner said earlier, we are very pro-biotechnology, especially when we look at some of these opportunities with new microbiomes and products on our landscape here at our farm, Highland Family Farms. We have run many pilots and many tests. Some of those products we have adopted. Some of them are not within our budget, but they will get better over time.

Research is an important component of moving American agriculture forward, and forestry. I mentioned in my testimony that we are also converting some acres to organic production. There is research to be done in that realm, too, as we look at the resiliency and eliminating and reducing risk on all facets of what we do here.

So, we look forward to all the new programs that are available to us, but we also are very dependent on our land-grants to do some research at their facilities with scientists and move science forward too at the same time.

I appreciate the comments, and I would just like to end by saying I have appreciated everything that everyone has brought up here today. It is overwhelming right now for American agriculture as we look at the challenges that face us. We are a resilient bunch. No matter what we do on the landscape, we will continue to look for good partners, look for good advice, technical assistance, government programs, private industry ideas to continue to move forward, and will hope to adopt those into the new farm bill.

Mr. BAIRD. We are an optimistic group. We always have been, so thank you for those answers. Thank you very much, witnesses.—

Ms. DUNCANSON. That is—

Mr. BAIRD. I am not sure, Mr. Chairman, how much time I have left, but if any of the other witnesses would like to comment—

The CHAIRMAN. Your time has expired, unfortunately.*

The gentleman from California, Mr. Carbajal, is now recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman, and thank you to all the witnesses for taking time to testify before our Committee today on these important issues.

* **Editor's note:** the responses to the information referred to are located: for Ms. Heitkamp, on p. 332; Ms. Raygoza, on p. 333; Dr. Humiston, on p. 334; and Dr. Outlaw, on p. 334.

Like many areas of California, my district produces wonderful agriculture products, including the best, bar none, strawberries in the country, wine grapes, broccoli, avocados, and much, much more. I am proud of the contributions California's 24th District makes to our nation's food supply and the economy. Like many areas of California, my district also knows the consequences of climate change all too well, as we have experienced devastating fires and prolonged drought. California has long been the country's top agricultural state. Let me repeat that: top agricultural state, and leading the fight against climate change. This is in part because of the research funded by the farm bill programs, and by our terrific universities like Cal Poly San Luis Obispo, and the University of California system, who has an institution in my district.

Dr. Humiston, can you elaborate on some of the ways that UC cooperative extension can help with wildfire prevention and research? I know you touched on this a little bit, but if you could elaborate a little bit more it would be great. And as we look towards drafting a farm bill in 2023, what are some of the USDA's programs Congress can improve to better assist with wildfire prevention and recovery?

Dr. HUMISTON. Thank you for the question.

Cooperative extension is deeply engaged in several different activities around wildfire risk reduction and also forest health. For example, we have coordinated local communities and homeowner's associations to create controlled burn associations where we provide training and actually organize controlled burns that help remove that excessive fuel load and keep the forest healthy.

We also have our master gardeners program increasingly working with homeowners on how to make their house fire-wise, improving their landscaping plants to be less prone to fire, giving defensible space, hardening where necessary, and really reducing that risk, which is huge. And as you know in California, and many of the western states and elsewhere, where winds can blow embers from a fire ½ mile to a mile ahead, you have really got to do that defensible home hardening to protect our homes.

There are several other farm bill programs that are critical to helping us with this. I mentioned earlier the biobased products, so I won't do that again. But there are many programs there, and I will say one other item that hasn't been mentioned yet, not specific to fire, but drought which you brought up is the need to make sure we have adequate water resources for irrigation for our farmers to grow those crops that you named.

One thing that I personally would love to see would be some loosening of the language around Rural Development's ability to do piping from wastewater treatment facilities out to irrigation water sources. That is such an obvious win/win between urban and rural and our farmers, and yet right now, the language doesn't really allow that itself, as well as the population limits make it impossible to do that kind of infrastructure, even though it would serve our communities and our farmers very much.

Mr. CARBAJAL. Thank you.

Dr. Humiston, in your testimony you mentioned that drought and heat tolerant crop varieties are being developed. Can you speak to the impact this could have on water conservation efforts

in California, and the role farm bill programs played in this research?

Dr. HUMISTON. Yes, absolutely. I mentioned the need to develop new crop varieties, and this is critical. We are seeing our ecosystems actually move around. Obviously a little bit to the north as different sectors of the state warm up, and again, this isn't just California. But finding those crop varieties that maybe have a shorter growing season, are able to grow with less water, and the ability to perhaps use saltier soils are all critical to be able to keep productivity up.

The other item that is really exciting is the ability to really use data to help us with managing this type of productivity. We have created a software system called Crop Manage, some of our cooperative extension folks over on the coast, that actually allows farmers who utilize it to reduce their need for water and nitrogen fertilizer as much as 40 percent and still maintain the same levels of productivity on many specialty crops. We are working to expand that to additional crops as we speak.

Mr. CARBAJAL. Thank you.

Ms. Raygoza, I don't know if I have enough time, but I agree with you that young farmers are the future. I want to help support these young, aspiring farmers succeed and produce food for our country. Do you think some type of workforce development partnership between USDA and community colleges would be useful to teach young farmers how to navigate USDA resources and learn about climate practices?

The CHAIRMAN. The gentleman's time has expired, but you may respond in writing to him. Thank you.

[The information referred to is located on p. 333.]

Mr. CARBAJAL. Thank you.

The CHAIRMAN. The gentleman from Ohio, Mr. Balderson, is now recognized for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman, for the time. Thank you to the panel for being here.

Senator, it is nice to actually get to ask you a question. I enjoy your time on *Squawk Box*, so it is actually good to see you here. So, thank you.

Ohio runs a soil and water management program called H2Ohio that is showing some promise in lessening runoff from farm fields into rivers and streams, and provides farmers with financial incentives. It is interesting to me that farmers are being paid different prices for these programs. For example, if a farmer has a nutrient management plan, they receive \$2 per acre. If a farmer uses variable rate fertilization, they receive \$8 per acre. Combining practices can pay farmers up to \$30 per acre. I am curious if any of our panelists today know about what type of price discovery is occurring in these new carbon markets, and how these prices paid to farmers are determined? To follow up with that, perhaps we can start with you, Dr. Outlaw, which is a great name, since you have a background in agricultural economics.

Dr. OUTLAW. Right. At this point, there isn't very much transparency in how those prices have been determined. I wouldn't consider there to be a working market right now for carbon. Maybe—

you don't really have a market when you don't know how the prices are being determined, plain and simple.

Mr. CONNER. I would just say, Congressman, I think we are all in total agreement on that, including our own Secretary of Agriculture, and that is part of the reason the programs that he has put forward and recently announced is really sort of a discovery, if you will, type of program designed to create the data and the information that are going to be necessary to overcome some of these carbon market issues, including transparency that we have talked about. And we do commend the Secretary for recognizing that this is not just full speed ahead, that we do need to collect a lot of information here in the process before jumping into this thing with both feet, and in our view, he has done that with his announcement last week.

Mr. BALDERSON. Okay, thank you. Would anybody else like to add? Okay.

Ms. DUNCANSON. I just would like to add, if I could, please, that sometimes you have to go slow to go fast. So, if we have some programs out there that will figure out some ways to pay producers on any size or scale for doing a practice and get them into the groove of doing that, that is helpful. But we have to have good data to make sure what we are doing is being impactful. So, the data here again, data collection and analysis becomes really important to how we move forward.

Dr. HUMISTON. If I could add to that, too. All the comments thus far are right on. I would say that we are doing a lot of work not only around the idea of carbon markets, but ecosystem services which I mentioned in my testimony.

Our farmers and foresters and natural resource managers produce a lot of ecosystem services that the general public enjoys and doesn't pay a dime for. And if we can start finding the framework to start compensating for some of those ecosystem services, many of which are climate-smart practices, that too will help us move all of these issues forward in a more positive direction.

Mr. BALDERSON. Okay, thank you.

My next question, while the Biden Administration and Beltway think tanks continue to push a climate agenda based around new and untested programs, I am interested in working on climate solutions that will work for our farmers. When I hear from farmers about climate solutions, they talk about the need for more research, more boots on the ground support, access to precision agriculture technology, and the need for broadband connectivity to support this technology. To me, this all sounds like assistance that is available within current farm bill programs. Is the solution as simple as doubling down on these proven programs? And anyone from the panel can answer.

Mr. CONNER. I would just respond to that by saying I think part of the solution certainly is the existing framework that we have in place. That framework has corrected a lot of environmental problems for American agriculture through the years, whether it is erosion, water quality, wetlands, those kinds of things, and so, we are building off of that to move forward with what we are calling climate-smart agriculture. It is not 100 percent of the solution, but

it is a big part of it, and we believe that the mechanisms are in place to really go down that pathway aggressively.

Dr. HUMISTON. I would add, we need to not reinvent the wheel. We have some great programs, many of which need increased funding because the needs have grown. But I would also say that we need to really pursue interagency collaborations and making sure we are leveraging those programs amongst the different agencies far more than we currently do.

Mr. BALDERSON. Thank you all very much. My time has expired. Mr. Chairman, thank you.

The CHAIRMAN. The gentlewoman from Iowa, Mrs. Axne, is now recognized for 5 minutes.

Mrs. AXNE. Thank you, Chairman Scott, and thank you to all the witnesses for being here. It is very much appreciated. Hello, Senator Heitkamp, very nice to see you again, and all the other folks that are here.

This is a great topic, one of extreme interest to me. As this Committee continues its work on reviewing the 2018 Farm Bill in preparation for next year, it is clear to me that we need strong investment in conservation and renewable energy in order to meet the ever-increasing challenge of climate change. We know that our family farmers are on the front-lines of climate change and have seen firsthand the devastating impact that volatile and devastating weather. Boy, I know that in Iowa. We just had another tornado unfortunately go through our state.

But our family farmers are also a key part of the solution, and they have been champions of conservation and stewards of their land for generations. And as we learn more about climate change, it is critical that we equip our farmers with all the tools and resources and voluntary incentives that we can do to make sure that they meet those challenges.

The success of the biofuels industry is a great example of this, and from 2008 to 2020, the Renewable Fuel Standard resulted in the reduction of nearly 1 billion metric tons of greenhouse gas emissions from our transportation sector through the use of biofuels blends. In fact, biofuel production is on track to hit net-zero carbon emissions in the coming decades, all while being significantly cheaper at the pump than fossil fuels.

So, over this last year, I have been focused on expanding access to higher blends of ethanol as a way to reduce our emissions and to provide a more affordable option for our consumers. The legislation I have would build upon USDA's successful Higher Blends Infrastructure Incentive Program and ensure more fuel retailers can provide E15 at higher blends of ethanol, giving consumers access to, of course, more affordable, cleaner, and domestic source of fuel. And so, while my legislation passed the House last year, I was disappointed to see it stall in the Senate.

So, to you, Senator Heitkamp, I know you were heavily involved in biofuels policy when you served your great State of North Dakota. What role do you see biofuels playing in combating the climate crisis, and what suggestions do you have for Congress and for the Senate and for the Administration as a whole when looking at biofuels policy?

I think you are still muted.

Ms. HEITKAMP. My first suggestion is follow the law, and a previous speaker talked about this Administration. We had this problem in the Obama Administration with blend walls. We had this problem in the past Administration with waivers, and now we are still experiencing this problem. We have to give the industry certainty. But in addition to the work that you are doing, I am proud of the role that I played in passing section 45Q, which is a tax credit which the ethanol industry is going to use, not only to continue their great work in terms of climate, but to also sequester the CO₂ from their processes.

And so, we know that this is an industry that will adapt when given the certainty of market, and so the single most important thing that you can do, follow the law. Give them certainty to market. Set some goals that I know they can achieve, whether it is by doing the practices they are doing right now, or carbon capture. And so, I am really excited about the future of this industry, but [inaudible].

Mrs. AXNE. Thank you. I—you cut out a bit here, but I think you completed your answer. Thank you, Senator Heitkamp. I appreciate that.

I want to turn to cover crops real quickly here. Last summer, the USDA announced the availability of the Pandemic Cover Crop Program, obviously to help our producers offset the costs associated with cover crops and providing a discount on their crop insurance premiums.

Ms. Duncanson, thanks again for joining us here today and sharing your expertise. Can you tell me what level of interest you have seen from producers regarding cover cropping, or specifically the Pandemic Cover Crop Program, and what suggestions you have to improve it or other ways to incentivize more cover crops?

Ms. DUNCANSON. Thank you for that question. Yes, I appreciate being asked it.

There aren't as many people involved in cover crops as I wish, but that is coming along. As I mentioned earlier, sometimes you have to go slow to go fast, which means giving those incentives and making it easy to apply. Just yesterday, our family finished applying through FSA for the Cover Crop Program and we will utilize that as we pay for seed to expand cover crops throughout our operation. When I inquired at our FSA office, they said that about 30 percent of the folks that are serviced had applied for cover crops, and I see them as I travel the country. I see different cover crops becoming used more rapidly around the country, but here again, we are talking about technical assistance to get information and good data about—

The CHAIRMAN. The gentlelady's time has expired, unfortunately.

The gentleman from Kansas, Mr. Mann, is recognized for 5 minutes.

Mr. MANN. Thank you, Mr. Chairman, and thank you all for being here this morning and participating in today's hearing.

Farm bill conservation programs, as we all know, have generally generated wide bipartisan support in Congress, and wide adoption amongst farmers and ranchers. The extensive participation in conservation programs, I believe, comes from the flexibility for individ-

ualized operations, incentives for locally-led and voluntary efforts, and coordination with state technical committees.

In regards to climate specifically, I think it is important and my priorities would be to make sure that whatever you do is producer-focused, voluntary, not at the expense of other programs, and also make sure that we don't penalize our early adopters and things that are already happening.

To that effect, I guess my first question would be to you, Mr. Conner. For decades producers across the big 1st District, my district in Kansas, and the country have taken advantage of incentive-based programs by voluntarily making changes on their farms and ranches to be efficient stewards of their resources. Recently, I am starting to hear a lot from producers that have been implementing no-till practices for decades, but they would not qualify to participate in carbon market programs because their practice is not considered new. In some cases, these producers were told that they would need to farm conventionally for two growing seasons just to qualify for carbon market programs.

Can you expand on the importance of voluntary conservation efforts and discuss why it is important for Congress to make sure that we don't hinder or penalize early adopters?

Mr. CONNER. It is a great question, Congressman, and let me just say that the importance of these programs is really top line, and not only because they have been effective in the past, and as I noted earlier, these programs have solved many of the challenges that we have faced in American agriculture before, and done so in a way that, again, has been income enhancing. And that is the bottom line in terms of our recommendations, and we believe that that can be done here.

For the early adopters, this is something the Food and Ag Climate Alliance struggled with. I will just tell you that we ended up with a recommendation that simply suggested that there be a one-time payment in addition to what other subsequent payments may be coming down the pike, a one-time payment to those early adopters to compensate them for the work that they have done on their farms, and certainly not to penalize. And I would even add a worst-case scenario where they might tear up conservation practices only to be able to collect for the new ones. And obviously, that is just borderline stupidity to have that kind of policy in place.

So, we struggled with it. We came up with a recommendation, but it is certainly an area in the farm bill where we want to work with this Committee to develop what is the appropriate compensation for those early adopters, because they need it and should get it.

Mr. MANN. No, I appreciate that and appreciate how producer-focused your organization and group is on these issues. I wholeheartedly agree.

One last question will be for Dr. Outlaw. One of my top priorities in my role on this Committee is protecting crop insurance. It is absolutely vital to our ag producers all over my district, all over the country. We want to make sure that we protect crop insurance so that producers can sustain their operations year after year, even in the face of uncertain weather.

My question is what do you consider the role of crop insurance to be when dealing with uncertain or extreme weather events, and how should crop insurance enter into the overall conversation we are having about climate practices?

Dr. OUTLAW. Well, I think it is very involved. The local weather patterns have helped define a farmer's APH, which helps define their coverage, and so, crop insurance and conservation programs go hand in hand.

The issue I have, and what I testified to was that trying to link those together, in my opinion, is not a good idea primarily because you can always create winners and losers with programs, as an example, if producers in your state are not able to take advantage of some of these programs, then they wouldn't get the premium discounts that some other folks are suggesting would be out there. So, I suggested in my testimony that people need to pay really close attention to try to link these programs together.

There are many programs and many outlets through USDA to get money to producers to do climate friendly practices, climate-smart practices. It doesn't have to be tied to crop insurance.

Mr. MANN. Very good. Thank you all. My time is expiring, and with that, I yield back.

Thanks, Mr. Chairman.

The CHAIRMAN. Thank you.

The gentleman from Illinois, Mr. Rush, is now recognized for 5 minutes.

Mr. RUSH. I certainly want to thank you, Mr. Chairman, and this has been quite a hearing, and I really want to thank the witnesses for appearing before us today.

I don't see Senator Heitkamp on.

Ms. HEITKAMP. I think—I am here. You have lost my video, but I can hear you and I can answer.

Mr. RUSH. Okay.

Well, thank you so much, Senator.

Senator, I have a question for you. In your testimony, you discuss ensuring land access, especially for new and small and historically underserved landowners and producers. This is an issue that I have been working on for quite a while now, and it is an issue that really connects with me personally. My grandfather owned a farm in Norton County, Georgia, southwest Georgia, and it was my family farm. And my father, to his dying day, always wanted to try to figure out what happened to the farm and how we could reclaim the farm.

That is the plight that is shared with a number of African American descendants of farmers to our land. And so, can you expound, if you will, on what new Federal incentives could address the financial, legal, and social obstacles that currently limit access to affordable farmland, specifically? And in general, is there any ideas or suggestions you may have that could give some relief, some advice, some help to individuals who may want to question the loss of their family farmland, and some of the impediments that heirs property rights have caused for African American farmers specifically, and other farmers in general?

The next part of my question is how can urban farming play a role in increasing access to land and/or enacting good climate policy? So, that is a lot, Senator, but you are capable. Please.

Ms. HEITKAMP. Yes, that might be beyond my pay grade, but I am going to suggest to all of you that one of the looming crises in America is land ownership and absentee land ownership. Even in a state like North Dakota, over only 25 percent of the land that large farmers farm is actually owned by the farmer themselves, and so, we have a situation where we have land ownership by people who are not actually producing, who are not—I mean, they are making money obviously from rents. And so, once that land becomes available, it is incredibly difficult for small family farmers or for people who want to reestablish or expand their farm to actually be able to afford it. If we want to keep a culture of family farming in this country, we have to look at land ownership. And if we want to rectify past wrongs that have been done, we have to look at that chain of title. We have to look at kind of this from the standpoint of people who, quite honestly, lost their land inappropriately, who had it taken from them, or who now have it tied up in land trusts and they are unable to access the asset.

And so, this land ownership goes beyond what you, Congressman Rush, what you have identified, but it is absolutely one of those heads-up to what is coming at us in the future. We have to fix past wrongs, but we also have to look at the challenges that land ownership will present to making sure that we are producing enough food to feed our country and feed the world, because it will restrict us in terms of access to that asset for agricultural production.

Mr. RUSH. Thank you, Senator.

The CHAIRMAN. You are absolutely right, Senator.

Thank you, Congressman Rush.

Mr. RUSH. Thank you.

The CHAIRMAN. The gentleman from Iowa, Mr. Feenstra, is now recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Scott and Ranking Member Thompson.

I am proud of our farmers and producers in my district who are leading the way in farming practices that result in productive harvests and clean environment. For years, the agriculture industry has implemented practices that reduce emissions, enrich the soil, and protect our natural resources. These practices have improved our quality of life by allowing farmers to produce more food, fiber, and fuel for all of us.

Iowa's 4th District leads the nation in ethanol and biofuels production. In addition to great economic benefits, USDA reports that the greenhouse gas emissions associated with corn ethanol are 43 percent lower than gasoline. Similarly, biodiesel and renewable diesel are 74 percent less carbon intensive than petroleum fuels. Programs under Title IX of the 2018 Farm Bill have bolstered renewable energy production in the United States. For example, the Biofuels Education Program has stimulated both consumption and investment in biodiesel through education efforts. Funding offered through these programs have been leveraged to promote biodiesel sustainability benefits, provide technical assistance to equipment manufacturers, and develop fuel quality assurance programs.

Another program of Title IX, the Advanced Biofuel Payment Program, has provided mandatory funding through the 2018 Farm Bill. The program provides assistance to small fuel producers looking to create long-term increases in biofuel production.

Senator Heitkamp, how has the Title IX of the farm bill advanced cleaner burning domestic energy production that benefits farmers and the environment?

Ms. HEITKAMP. I would like to just repeat back to you, Congressman, what you just said. When you look at the actual reductions, you look at the opportunity, and I want to—I don't know if you guys could hear me when I was responding, but when we look at what the Iowa ethanol industry is doing and what South Dakota is doing and North Dakota is doing, they are looking at carbon capture to actually even expand on those numbers. Carbon capture behind the process which can even reduce their greenhouse impact greater. And so, I think that when [inaudible] access to the market by limiting infrastructure, or people who just don't like corn ethanol. [inaudible].

The CHAIRMAN. Senator, we are having a little more difficulty, but you can respond to that in writing.

[The information referred to is located on p. 332.]

Mr. FEENSTRA. And I will resume. I just appreciate what Senator Heitkamp is saying, and it is just amazing to hear the positive reinforcement that is being talked about in this Committee hearing when it come to biofuels, ethanol, biodiesel, and so forth.

And yet, what is shocking to me is never once have we heard from the Administration, and this is so concerning right now when we are at such a precipice with our country that we are desperately trying to find energy and fuel. And yet, not one word, crickets. And I am so disappointed in that, just really disappointed.

The 2018 Farm Bill authorized the Soil Health and Income Protection Pilot Program, called SHIPP, a voluntary program that allowed short-term contracts for producers to target marginal acres in the field. This is a really great program. Dr. Humiston, how has this program empowered producers to adopt conservation practices, and do you agree with locally-led programs like SHIPP to target these certain areas?

Dr. HUMISTON. Thank you for the question.

Yes, I absolutely agree with locally-led programs. I served as a director on a soil and water conservation district myself in California for many years, and it is that locally-led program that lets us make sure that practices are specific to the soil, the climate, the ecosystems that our farmers are operating in.

As to the short-term program you mentioned, it is a critical opportunity to allow farmers to implement practices that they might not otherwise be able to afford. As we all know, agriculture is challenging to pencil out under the best of circumstances, let alone some of the circumstances we have now, so that type of program is exactly what we need, particularly for some of our small and beginning farmers, too.

Mr. FEENSTRA. Absolutely. Thanks for your comments, and I yield back.

The CHAIRMAN. The gentlewoman from Illinois, Mrs. Bustos, who is also Chair of the Subcommittee on General Farm Commodities and Risk Management, is now recognized for 5 minutes.

Mrs. BUSTOS. Thank you so much, Mr. Chairman, and really, I want to say thank you for holding this hearing. It is really important that we hear from all the witnesses who are with us.

And I know we have heard a lot today—I had another hearing going on. My staff briefed me on the highlights of this. But I know we have heard a lot about the importance of crop insurance, and the USDA has rolled out some new products in recent years that addressed these challenges that we have.

I want to start out by asking Ms. Duncanson a question. Would you please talk about what other new crop insurance products or risk management tools might be necessary in order to help our producers mitigate the impacts of the climate change that we are all experiencing?

Ms. DUNCANSON. Thank you very much for that question, and I appreciate that.

Let's keep in mind that we have said time and time again here today about the vital importance of crop insurance, and with every new project or every new product that comes out of that system, it needs to be actuarially sound. And so, anything that we introduce, we always want to make sure that test is done. All these products are about resiliency and eliminating risk, so as we look at good farming practices that are established through USDA and new things that are happening out on the landscape, we look forward to using the sound advice of this Committee, of USDA, of others in private industry, as well as the system about how we introduce a program.

As you may know, the PACE product, which is about split-application of nitrogen rates, is in its pilot stage throughout your state and the University of Illinois is managing part of that data collection and analysis for us, and that really looks at the opportunity for farmers to split-apply nitrogen when it is needed, but it gives the opportunity for an insurance program, should you not be able to get the product on in a timely fashion. So, we look forward to seeing about the adoption of the PACE, and are pleased that we were able to provide research for its creation.

Mrs. BUSTOS. Thank you, Ms. Duncanson.

All right. I am going to try to ask Senator Heitkamp a question, and we will see if this will work.

In the most recent report of your Farm and Forest Climate Solutions Task Force noted the importance of expanding programs that deliver climate benefits and offer pathways to new market opportunities for farmers, ranchers, and forestland owners. So, just last month, the USDA announced the Partnerships for Climate-Smart Commodities, which probably everyone in this room knows, is a \$1 billion program for pilot projects that create new opportunities for climate-smart commodities across the value chain.

So, Senator, hopefully you can hear me and hopefully we can hear your answer, but can you expand on what sorts of projects that you envision through these partnerships, and how you see them impacting rural America?

Ms. HEITKAMP. Well, I am very excited about them, Congresswoman. I think that when you look at it, it is going to be a community collaboration, so let's look at a corn farmer in North Dakota that is growing cover crops that is saying, "I am sequestering CO₂. I am doing everything right, but I need to have verification." And so, they can work with the land-grant colleges. They will be able to work with local entrepreneurs, tech companies to try and do that verification. Because we know without that verification, the new carbon markets won't work because people aren't going to buy carbon credits that aren't real.

And so, I really applaud the Secretary. I think—to think that you sit in Washington, you can design a program here is absolutely [inaudible] to throw out an opportunity, and let us in rural America develop the programs, that is where we are going to find the solutions. And I think it is a great idea. I think it is a great use of resources, and I think you are going to see great results.

Mrs. BUSTOS. Hear, hear. Great answer. Thank you, Senator. It is great to see you.

I will pass on my next question because I know I can't get it answered within the next 40 seconds, so with that, I will yield back, and again, Mr. Chairman, thank you so much for holding this hearing and thank you to our witnesses.

The CHAIRMAN. And thank you.

The gentleman from Alabama, Mr. Moore, is now recognized for 5 minutes.

Mr. MOORE. Thank you, Mr. Chairman.

This is a question to all the panelists, and so, anyone can feel free to answer this.

The EPA estimates that the agricultural global greenhouse gas contribution was 24 percent for all emissions, over double that of the agriculture share in U.S. emissions, which is less than ten percent. Why do you all think this is, and also, what do you think other nations should be doing to follow the leadership of the U.S. agricultural industry? Thank you.

Mr. CONNER. Congressman, there is no question in our mind that American agriculture is at the very, very top of its game in food production internationally, and we are the cleanest, the most advanced, least footprint, and we take great pride in that. And I know this Committee takes great pride in that designation, and that is so important to us as we talk about food is a national security issue, going forward. We are going to need to produce a lot of food in this country, and it has to be produced obviously in the most sustainable, cleanest way possible. And we understand that, and that is why these recommendations that everyone is talking about at great length are so important, because they are programs designed to come along beside farmers and landowners across the country to really encourage them to be able to produce. This is all about producing food. It is not about holding people back; it is about really adding to a growth industry and doing so in a way that is responsible. And we are proud of who we represent in this industry, and again, I know this Committee is as well.

Dr. HUMISTON. I would add to that that it is critically important that we ensure our data, our analysis of that data, and the results we get from it is accurate. It is based on science and real numbers.

A lot of the numbers that we see on greenhouse emissions from agriculture are based on very different formulas of how to even calculate that. That is one of the huge issues out there. Some of them are based on data that was released by the United Nations Food and Ag Organization a decade or so ago that they themselves since debunked, and yet, academics and scientists and advocates still utilize that false data. I don't pretend to have the actual answer because frankly, academics are still working on figuring that out, but I do know that if we are going to make smart investments in good solutions and keep our agriculture going, we have to understand that yes, agriculture produces some greenhouse gases. It does. But it also sequesters and can be a solution to that, and we have to look at both sides of that equation. It is not just one. Frankly, if we were to do that type of calculation for every industry sector in every aspect of our lives, none of them are going to come out well.

So, we have just got to really think about the data, that it is analyzed properly, the science is good, and then use that to make the kind of investments that will give us the most bang for the buck.

Mr. MOORE. Those are some very good points, and thank you.

Any idea on how we can bring other nations along? I mean, I am always concerned about us penalizing our producers and then letting the rest of the world run wild. Do you have suggestions on how to bring other people along to join us in this effort?

Mr. CONNER. Again, Congressman, I don't think we are talking about penalizing here. The Food and Ag Climate Alliance's fundamental principles talk about enhancing farm income, enhancing opportunities in rural America, and I think this is what we can do for the world. We can be the trailblazer here in terms of putting forth policies that help farmers and help them to do it the best that they possibly can. I don't know of any nation that wants to stomp on the people that are producing the food and feeding them. That just runs pretty counter to anything good and right in this world. And so, to the extent that we can model this, I believe others will follow.

Dr. HUMISTON. And I would add to that, that it is critically important our scientists from every country on the planet be able to interact with each other. And yes, I will say we need to provide appropriate cybersecurity and secure information as needed, but nevertheless, we find solutions here that may work for another country. Another country may find a solution that is wonderful for us here, and the less we try to reinvent the wheel or duplicate something already done, the more resources we have to move towards implementing solutions.

Mr. MOORE. Thank you for the answers.

Mr. Chairman, I am going to yield back my time. Thank you.

The CHAIRMAN. Thank you.

The gentlewoman from Washington, Ms. Schrier, is now recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman, and welcome to all of our witnesses.

I would just like to touch on a few issues today. First one is that I would like to discuss the measuring, monitoring, and verification of success of sustainable farming practices and forestry practices. And I know that measuring climate benefits accurately and cost ef-

fectively as a result of changing land management practices still remains a challenge. Our ability to measure soil carbon sequestration precisely, for example, is crucial to set realistic policy goals and design effective incentives, but it can also present us with a situation if we can't measure it well, finding ourselves in this situation where suddenly everything is referred to as climate-friendly or clean when we don't have a way to measure, and suddenly the designation of clean and climate-friendly just becomes meaningless.

And so, this first question is for Deputy Secretary Conner and Senator Heitkamp, for both of you. And my first question is kind of part A and part B. (A) is how would you work with definitions and measurements to ensure meaningfulness as we give these designations; and (B), which USDA programs do you suggest Congress expand upon to advance measurement tools and technologies of climate benefits for agriculture?

Senator Heitkamp, we will start with you.

Ms. HEITKAMP. Thanks so much.

I think it has been pretty clear that I think that we don't yet have good measurement tools, and that is why it is important that we, number one, continue the research, continue the education, because the last thing that we should be doing in agriculture is making a claim about climate that is not valid. It will set us back in terms of our goal, which is really to commoditize that carbon credit and make it an income stream for the people who own the land who are producing on the land.

And so, I think there have been a number of carbon markets. They have had their difficulties for exactly this reason, and I think we are going to have to present solid science.

Now, with that said, we can't delay this process too long, making perfect the enemy of good. We are going to learn as we adapt, and so, to me, I think that Secretary Vilsack is trying to build out the expertise, but at the end of the day, we need authorization from Congress to undergo this work. I think that the bill that is crossing over from the Senate was one that I would have been proud to advance to all of you. I hope you consider it and then advance it, because it will get the resources that Secretary Vilsack needs to do this work.

Ms. SCHRIER. Thank you.

Deputy Secretary Conner, do you have about a 30 second answer before I go to another—

Mr. CONNER. Yes, I will be very brief. I will just say that it is our view that Secretary Vilsack's Partnership for Climate-Smart Commodities that was announced really is a massive pilot project designed to gather the kind of information that you are seeking. I think we are in 100 percent agreement with the panel on that. It is a big pilot project from all regions. We look forward to the results of that and analyzing that information, and I think it will be informative in terms of a long-term climate policy then for this country.

In terms of which USDA programs, I will tell you I think this is a collaborative effort across many agencies. We acknowledge a role for ARS in terms of data analysis here, Agricultural Research Service. But certainly, the technical service providers that will be coming online here through NRCS are going to be the people with

the boots on the ground that producers will be interacting with. They will be walking the fields, analyzing what works and what doesn't and reporting that back, and they are going to be a critical part of that.

We have to make sure we have the people on the ground.

Ms. SCHRIER. I have one more part that I just want to touch on really quickly, because we don't always have measurements. But I want to highlight a program we have here in Washington State called the Sustainable Farms and Fields Program. It is a bipartisan voluntary program that supports farmers who are implementing practices that we already know work, and it leaves out some types of farmers, but it is a way to do this without the measurements, and it gives farmers different options for participation, like they can use funds for very site-specific consultations. They could purchase a seed drill with it, or seeds for cover cropping, or even payments for contracted carbon storage. And so, I just want to highlight that there are programs even in advance of having those perfect measurements that can advance these climate goals in addition to the ones that you just mentioned.

Thank you, and I yield back.

The CHAIRMAN. The gentlelady from Florida, Mrs. Cammack, is recognized for 5 minutes.

Mrs. CAMMACK. Well, thank you, Mr. Chairman. I appreciate it. Can you all hear me okay?

The CHAIRMAN. Yes, we can.

Mrs. CAMMACK. Excellent, thank you, Mr. Chairman.

I have to be honest. I am incredibly frustrated. It has been about 14, 15 months now since the beginning of the 117th Congress, and to date, we have had six, six hearings about climate change, and one about production agriculture, one. Like I said, I am very frustrated. I represent an area that is home to producers, and as the lone Republican for the State of Florida on the House Agriculture Committee, this issue is incredibly vital to my state. We are a top ten producer of agriculture products in the country, and to say that this hearing is redundant is putting it nicely. It really does betray the really serious, dire needs of our producers that they are facing right now with fuel, input costs through the roof, labor concerns, taxes, regulations, red tape. You can't even begin to understand the frustration of our producers, because we haven't brought them before the Committee. We haven't had these conversations. And if you ask any of my producers in Florida whether the pressing concern for them is covering irrigation canals with solar panels or figuring out how they are going to afford fertilizer in the coming months, I think it is pretty obvious what they are going to choose as the issue of concern for them. And the fact that this hearing isn't even a review of the farm bill program, as the Majority would have us believe, it is instead a wish list of climate change priorities. It is a wish list of things that lack practicality. And so, I am really, really frustrated.

And I echo the frustrations of producers not just in Florida, but across this country that feel that they are screaming at the top of their lungs and it is falling on deaf ears in Washington and in the halls of Congress. Again, the cost of fuel. Has that been addressed? No. There is no feasible plan from this Administration or this Com-

mittee to address that. The best that has come out is we are going to work to make electric vehicles and charging stations happen in rural America. Folks, we don't even have broadband. That is a pie in the sky idea. While well-intentioned, it misses the mark by a mile.

And I just can't even begin to tell you about the labor concerns. Just even 2 weeks ago, having to work to process applications for H-2A workers because we had blueberries—it is blueberry season in my district—and they have no help in order to pick the blueberries. This is a continual issue that we are seeing.

The cost of fertilizer, Mr. Chairman. Alarm bells have been ringing. We now have Russia invading Ukraine, and many people know that Russia and Belarus are the major supplier of potash. And when I speak with our producers, they are facing issues of regulatory hurdles here in the country, and then you look to our Canadian friends who, when you look at the Canadian Pacific Rail Line, they are looking at a strike. What are our producers supposed to do in the face of input costs that make doing business unreasonable?

I feel extraordinarily frustrated for our producers because this Committee has had opportunity after opportunity to talk about these issues that are on the minds and being discussed at kitchen tables around this country, and instead, it is being neglected for political agenda.

You talk about the important role of forestry and timber and how that plays into carbon capture, but what happens when the privately owned and workforce in my district in Florida are sold because the cost of labor and fuel and inputs are so high it is unsustainable? One forester in my district let me know just last week, he has seen \$10,000 in increased fuel costs, just in fuel costs. He told me that if prices stay this high, which, of course, this Administration has indicated that it will and they will continue to stay this high, he is going to sell his land. Do you really want the next crop to be a foundation slab, because it won't be production agriculture. And I think there needs to be a come to Jesus discussion in this Committee about the future of agriculture, and I am not talking about climate change. I am talking about production agriculture, and if any person on this call has eaten today, you should be concerned about production agriculture in our country, which is a national security concern.

I cannot believe that we are picking and choosing the issues that are a national security concern for every American regardless of where you live in the country and what box you check.

Mr. Chairman, I apologize. I respect you, but—

The CHAIRMAN. The gentlelady's time has expired.

The gentleman from California, Mr. Panetta, is now recognized for 5 minutes.

Mr. PANETTA. Thank you, Mr. Chairman. I appreciate this hearing, and thanks for all of the witnesses and your testimony, and of course, all of your work to highlight what I do believe is an important issue.

Also, of course, I want to thank Dr. Humiston for everything that she has done for my district on the Central Coast of California and

for the State of California, the number one agricultural producing state.

Look, I think we can all sympathize and empathize with the concerns and frustrations that my colleague from Florida just expressed; however, I would disagree with her in the sense that this isn't about politics. This really is about policy, policies that we are talking about to deal with a very pressing issue amongst many that our people in agriculture have to deal with. We get that, but this is a time that we can talk about what type of policies we can put in place, going forward, into the 2023 Farm Bill dealing with climate change and how it affects our agricultural producers. Not just in Florida, not just in California, but throughout the entire country.

Now, look, in my district on the Central Coast of California, as I always say, we have a lot of *bounty*, and we have a lot of *beauty*. And with our bounty, we have a number of specialty crops. You name it, we grow it. I cannot stress that enough, especially in the Salinas, the Pajaro, and the San Juan Valleys. When it comes to our beauty, we have a National Park, we have a national monument, we got a National Forest, we got a national marine sanctuary, for Pete's sake. But that leads to my third B, and what that B is, is having a *balance*. What is the type of balance that we need to have to be concerned with our environment, but continue to produce the fresh fruits and vegetables that my agricultural producers do. It takes a lot of work together. It takes a lot of work coming to the table and making sure our producers are at the table to talk about the protections for agriculture, for ag workers, and yes, even for our environment. Because trust me, what I like to remind people, if anybody wants fresh air, clean water, and healthy soil, it is those that work in agriculture.

Now, Dr. Humiston, I was lucky to have time with you yesterday in my office to have a good conversation. I want to focus on something in regards to what you mentioned in your introduction about *rural* designation. Basically talking about how that has severely impeded the ability of our communities and our farmers and ranchers to benefit from many Federal programs, even those programs aimed at strengthening our rural communities.

Briefly, can you discuss further the need to revisit the definition of *rural* and elaborate a little bit on how the current definition limits climate-smart investments in rural economies that unfortunately don't meet the unrealistic criteria that can be imposed on them to meet the designation of *rural*?

Dr. HUMISTON. Thank you, Congressman. I appreciate the question.

If you will indulge me for 30 seconds before I answer that, I just want to say that I, too, understand the frustration that many people have expressed today. My father currently manages our family's cattle ranch in southwest Colorado, a family farm that could only support he and my mother as an economic institution. Because of that, I chose to go on a path of policy and planning related to the farm bill, farm practices, everything I do now and have for 30 years, to make sure my father can keep farming and people like him can keep farming. And one issue that hasn't come up today that I think is critical is that we are talking about a farm bill that

is not just for today and the next 5 years. My father, my siblings, and I are trying to make sure that my grandson and my great nieces and nephews are able to keep on farming, and we have not discussed that today, and a lot of these climate-smart agriculture programs are what are going to enable those farms to be functioning in 10 and 20 years, particularly in states where we are already seeing devastating effects from extreme weather.

To your question, I have already mentioned several examples previously. The biggest one I just mentioned a second ago that is worth repeating is examples from Rural Development. That is the one where we have probably got some of the worst constrictions concerning population. Things like the water programs that cannot operate in a community over 10,000.

If you look up and down California and other states, we have drought. We have water shortages for irrigation. We need to utilize every source of water we can. A healthier forest will produce more water. We are exploring things like—excuse me, I forgot my English there for a second. Getting water from the sea, *et cetera*. But recycled water from our urban areas is a huge opportunity to provide irrigation water, and the reality is communities that are small are not going to have the volume that can pencil out putting the infrastructure in place to get that highly treated wastewater—in most cases, treated to drinking water standards—out into the agricultural areas where it can help our farmers that need irrigation water. That is just one example. There are many, many others around other USDA programs, and how even our research dollars are allocated. California gets far less of allocation for capacity funds than almost 20 other states simply because of the size of our counties, and that ridiculous definition about *metropolitan*.

The CHAIRMAN. Thank you. Your comments are well taken.

The gentlelady from Louisiana, Ms. Letlow, is now recognized for 5 minutes.

Ms. LETLOW. Thank you, Chairman Scott, and thank you to all the witnesses for your testimonies and valuable insight.

While there are big questions contributing to the conversation here today, and most of my questions have already been addressed, I would like to direct my comments to Dr. Outlaw.

Dr. Outlaw, first, I want to personally thank you and your team for the great work in conducting a study to analyze the economic impact on higher fertilizer prices on the Agriculture and Food Policy Center's 64 representative farms, including the grain farm located in my district. And as you know, we are now 2 months out from the publication and findings of that report. Yet, the situation in our countryside continues to be exacerbated. I continue to hear the concerns of our farmers, particularly our rice farmers, about the unpredictable challenges they face with increased cost of production, many of who are considering whether to plant this year. This is a troublesome trend.

Dr. Outlaw, with additional challenges we are now facing globally, the situation has only gotten worse, particularly on fuel and fertilizer. Your study concluded that rice farms experience the highest fertilizer cost increase, averaging \$62.04 per acre, which accounts for an astronomical impact in overall input costs. What

might that look like today, and do you agree it is getting worse, and could we quantify that?

Dr. OUTLAW. Yes, I do agree it is worse. We are currently updating the study. I don't think it is a secret, but the Senate Agriculture, Nutrition, and Forestry Committee has asked for an updated study. If it is a secret, it is not anymore.

But the reality is, is that when we did that study, we had pulled numbers as of the end of the year, and the first couple of months of this year conditions have deteriorated even more, so I would suggest that the estimates we gave you are probably 20 to 30 percent or maybe even lower than they will be next time.

Ms. LETLOW. Wow. Well, thank you again for your dedication and expertise in evaluating farm policies and applying them to our hardworking farmers and ranchers on the ground.

Mr. Chairman, I yield back the remainder of my time.

The CHAIRMAN. Thank you.

The gentleman from Georgia, Mr. Bishop, is now recognized for 5 minutes.

Mr. BISHOP. Thank you very much, Mr. Chairman. Thank you, Ranking Member Thompson. Thank you both for holding this hearing, and I want to thank our witnesses for coming and the great information that they are bringing, and I extend a special welcome to Senator Heitkamp.

I want to put on my hat as an appropriator. Through the Fiscal Year 2022 agriculture appropriations bill, USDA is going to receive significant investments to research sustainable agriculture systems and to identify solutions to help the agriculture industry as it constantly evolves to mitigate and adapt to climate change. The examples include the NRCS's COMET Farm, the Forest Service's Forest Inventory and Analysis Program, the ARS Research Labs, the USDA Climate Hubs, NIFA's extramural research initiatives and extension activities, ERS research reports, and statistical and spatial data from the National Agricultural Statistics Service. These USDA agencies, along with the Offices of the Chief Economist and the Chief Scientist, conduct research for producers to have better data for better decisions.

I will start with Mr. Conner. Can you tell me—and I would like for the other witnesses to answer this as well—is additional research needed to better understand how climate change will impact farmers, ranchers, and forest owners, and are there additional needs for improvements for existing research tools? And how can USDA help close these knowledge gaps?

Mr. CONNER. Congressman, I appreciate the question. I believe there is a substantial role here that you have identified on a number of these programs.

Let me just say that we encourage USDA to focus—and I believe they are—on this path of measurement and better data collection, and this has been a bit of a theme through this hearing of the need for this. It really is sort of holding us back in terms of proper representation of farmers out there, because we just don't have that good measuring consistency of data, how it is collected. I would also say something significant from our standpoint is the number of soil sampling reference sites out there, which are critical, again, for gathering data to determine carbon uptake and these sorts of

things, additional dollars to expand those number of sites, again, to make sure that these programs are not just benefitting one area or one group of farmers, but very, very broadly dispersed. I think that is a critical element of that as well.

And finally, I will just say generally speaking, we really encourage you as appropriators to recognize the role of the Agricultural Research Service and the role that they play in here in terms of that research that ultimately USDA puts on the ground and puts in the hands of farmers.

So, thank you for all your work, Congressman, on the Appropriations Committee. I know this has been a tough slough, but there will be a great outcome from this, we believe.

Mr. BISHOP. Thank you, Mr. Conner.

Dr. HUMISTON. I would add to that—

Mr. BISHOP. Any other witnesses?

Dr. HUMISTON. I would add to that, that there are some very exciting developments in new technologies. We have mentioned robotics and drones, but one example that I would highlight is a recent grant we received that is joint between University of California, University of Illinois, Cornell, and the Agricultural Research Service looking at how artificial intelligence can help us improve every aspect of our food systems, from production to workforce, distribution, processing, *et cetera*. And that is just one example of how, again, we can find these ways to utilize the different agencies and find new technologies that will help us achieve our goals.

Ms. DUNCANSON. If I can just chime in here, too.

I agree with the other two witnesses and appreciate the question from the Congressman. USDA does have a lot of data. We would hope that the mission areas can share that data in common units, aggregate it, analyze it, and make sure it is anonymized.

Mr. BISHOP. Thank you very kindly.

With that, Mr. Chairman, I will yield back the balance of my time.

The CHAIRMAN. Thank you.

The gentleman from Texas, Mr. Cloud, is recognized for 5 minutes.

Mr. CLOUD. Thank you, Mr. Chairman. I appreciate the time and this discussion today.

On one hand, I am very excited that we are having a hearing on the farm bill. We have had many hearings not related to the farm bill in this term, and I also wanted to thank our future Chairman for his comments at the beginning of this hearing, and certainly appreciate his level-headed approach to the discussion.

In this term we have had hearings on a retroactive blueberry bill. We have had hearings on electric tractors when no one I am talking to in the ag industry is asking for electric tractors right now. I did talk to a farmer last week whose tire went out on his tractor and he can't seem to find a tire to continue the good work that he is trying to do on his farm.

It was just said that if anyone wants clean air, clean water, understands the need for us to be good stewards of our environment, it is the ag community, and I think indeed we have seen that. Historically, what we have seen is we have seen yields of the American ag worker go up. We have seen inputs go dramatically down, and

yet, the approach right now is to bring the heavy hand of government into that equation as if we can somehow be the savior to a problem that is already being solved by the ag community. And so, I have very strong concerns about that. Historically, what we have seen in the past is whenever government steps in, even to lock in what might be the current great innovation, we lock it in at today's innovation and we actually stifle future innovations. And so, I think it is very important that we approach this conversation with all the due diligence it deserves, and especially how we have seen the policies. It has been said a number of times, but it is worth saying again. What we are seeing today, going on right now, the American experience for the family right now as you go to the grocery stores, you are wondering about food prices, you are wondering about lack of supplies on the shelves. You go to the American farmer, and you are seeing shortage of supplies. We are wondering about high fertilizer prices. We are wondering about pesticides that are not available and what our yields are going to look like a year from now. Couple that with the geopolitical events going on and the disruption that that will cause, we should be talking in this Committee about what we can do and what that is going to look like a year from now for the American family and for our food supply.

But today, we are talking again about the Green New Deal and what we can do about that. And so, Dr. Outlaw, could you speak to—you mentioned in your written testimony that many farmers have concerns over government involvement in carbon markets. Can you elaborate on these concerns?

Dr. OUTLAW. Yes. I have been doing this about 30-some odd years, and over time, even with well-based intentions, sometimes the results out of Washington are not as people thought they were going to be.

But, I think I will answer another question real quickly. The one thing that I would like for this Committee to move forward on is farmers are out there questioning all the different companies have their own soil carbon test, and no one has really mentioned that today that if you really wanted to have one good thing come out of this hearing—which many will—getting to the bottom of trying to establish one test that even the International Panel on Climate Change has met six times and hasn't come up with one test. So, that is an area that needs to be addressed.

But frankly—

Mr. CLOUD. Yes, that was going to be my next question, actually. If there was one way to measure carbon, but you are saying there is not a uniform way? Lots of people are doing it different ways so it is hard to have real valid data?

Dr. OUTLAW. It leads to a tremendous amount of confusion, why each company has their proprietary methods currently, and it seemed like this was a really good function of the Federal Government to kind of come up with this is a measure, and we are going to suggest people use this measure.

Mr. CLOUD. It would seem to me and what we have seen in the past, of course, when government intervenes into things like this, and indeed in carbon markets in the past, with the promises to the American ag worker is, "Hey, you will get some sort of financial

benefit out of this.” What typically seems to have happened is that we take \$10 out of an industry, and about \$9 of that ends up in a bureaucratic regulatory investigator bundle, and about \$1 of that might go back to the ag worker. And so, what the ag worker ends up trading for their small pittance, in a sense, is a heavy-handed regulatory effort that, throughout history, would seem to be not worth—it is a dance with the devil, so to speak.

Would you give your thoughts on that?

Dr. OUTLAW. Just to be clear, everything is voluntary so far so producers have a choice, but you are right. They are not acquiring very much money for this.

The CHAIRMAN. The gentleman’s time has expired.

The gentlewoman from the U.S. Virgin Islands, Ms. Plaskett, who is also Chair of the Subcommittee on Biotechnology, Horticulture, and Research, is now recognized for 5 minutes.

Ms. PLASKETT. Thank you so much, Mr. Chairman, and I want to thank you for this hearing and all the hearing that you have held which are important to the American people, and along with the subcommittees which you are the *ex officio* chair of, really provide the support and the underpinnings for the farm bill that we are going to be working on.

Ms. DUNCANSON, I wanted to ask you a question. In the appendix of your testimony, you suggest that soil health improvement should be built into the Federal Crop Insurance Program into their rating model. Would this change be intended to replace the current rating model, or would it just be an alternative that farmers could choose?

Ms. DUNCANSON. At this juncture, my level of expertise regarding that isn’t quite up to snuff as it should be for today. It has been a long morning. But, at this point, I think that we are open to looking at and including that if it is actuarially sound and can be helpful, and look towards advice on all different levels on if this would work throughout the country.

Ms. PLASKETT. Thank you.

As we all know, farmers over 65 years of age outnumber farmers under 35 by more than six to one, and many U.S. farmers are set to retire in this coming decade. To support the next generation of farmers and ranchers, transition productive farmland, revitalize our nation’s rural communities, all while tackling the climate crisis, considerable progress must still be made in how Federal agencies, including the USDA, serve young farmers and farmers of color.

Ms. RAYGOZA, what are the primary changes that you would like to see to improve accessibility to the farm bill conservation programs?

Ms. RAYGOZA. I would like to see more trained staff that are trained for working with small, diversified farmers and farmers of color that are able to provide that technical assistance that they need to access the programs. Also, I know that for our farm, we have participated in a lot of different programs, but that is because we have been working for a long time, and I think if we had relationships set up with, like, the Young Farmers Coalition, working with those different groups that already have the ties with the communities would also increase participation.

Ms. PLASKETT. Thank you. Thank you for that. I agree wholeheartedly with you. I know in my district in the Virgin Islands, the concern is the amount, not that the individuals who are there at USDA are not competent or helpful, but they are overwhelmed and can't really provide the support that is necessary for the amount of individuals that want to go into farming or the amount of technical assistance that they need, from bookkeeping to precision farming across the line. So, I think that that work, along with work with our cooperatives, is really important.

Mr. Conner, in your testimony you mentioned expanding Rural Energy for America Program, REAP, eligibility to include cooperatives. Can you explain how this would better enable investments that address climate change, and are those investments limited to one technology?

Mr. CONNER. Congresswoman, I don't think they are limited to one technology. The REAP Program is a very valuable program and it has provided a variety of different types of assistance to date. It is a highly underfunded program, and so, one way to have an immediate impact is to adequately fund that program, and again, that money could be distributed and the benefits received in very, very short order.

For us as cooperatives, as you know, we are, particularly in the livestock and dairy sector, we are a big presence, processing as much as 70 to 80 percent of the milk produced in this country. We are on farms and ranches every single day, and we believe there could be a role, going forward, in terms of managing the manure and circumstances that are creating greenhouse gas circumstances for co-ops. We would like to see them eligible for the REAP Program, again, as the group that is working directly with our farmer-owners, we just feel like there could be a benefit by expanding that eligibility, given the role that we play, particularly, again, in the anaerobic digester and manure management kinds of issues. But that is just one example.

Ms. PLASKETT. Thank you so much, and Mr. Chairman, thank you for the opportunity to question the witnesses, and I yield back.

The CHAIRMAN. Thank you, Ms. Plaskett.

The gentleman from Florida, Mr. Lawson, is now recognized for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman, for having this hearing. It is a great hearing. It is very educational, and it is something that we really needed to have, and all the other hearings have been very good. I want to thank the witnesses for being here today to answer a lot of questions and give us some insight of what is going on with climate change.

Now, according to the Federal Communications Commission, only 78.6 percent of Florida rural areas have access to high-speed broadband services, and this will be to the former Senator. How can the Rural Utilities Service best help communities get broadband and take advantage of the associated benefits?

Ms. HEITKAMP. Well, I think that when you look at a state like North Dakota, we have the best rural broadband in the country. In fact, my mother-in-law who lived out on the family farm had better broadband in a rural community than they did in Fargo, North Dakota. I will tell you how that happened. It happened by a commit-

ment from our rural telecoms who really stepped up and basically said we are going to make this investment. We need to not only look at having the money, but who is going to deploy that money, and obviously coming from a state like North Dakota and my background, I believe co-ops are hugely beneficial. I think that what you have to really watch for in implementing a lot of the broadband dollars that you are is that you don't have companies chasing after and using those dollars to compete in areas where you already have rural broadband. We know it is always the last mile. As we used to say in the electric business, it is always the last mile deploying that is going to cost the most. And so, USDA has to be very strategic in how they deploy these dollars. They have to identify where these dollars need to be—are most acute.

One thing I will tell you, and I know we talk a lot about broadband, but I think we have not done enough on wireless. Many of your communities in Florida and across the country do not have cell tower access. They can't actually make a phone call when they are stranded on the road. I have people in Native American communities, students who drive around looking for a signal, holding their hand out of their car so that they can advance their work product to their teachers. And so, we have to not just focus on broadband, but the entire connectivity that includes wireless, because I think that is going to be where you are going to get the AI, the data information, the data transfers from the fields.

So, thank you, Congressman, for all the work that you guys are doing, and good luck in Florida doing what we did in North Dakota.

Mr. LAWSON. Thank you very much, and I am glad you mentioned about sticking an arm out the window to try to get a signal, because sometimes going through the district, I had to do that or wait until I go up a hill. I lose it when I go down a hill, and so it is great that you mentioned that. It is really great.

Now, I know firsthand that the current Federal definition of *rural* classification limits many counties, especially several in my district, because of their proximity close to an urban center. And these are rural areas, but I have had situations where when funding has been available, I have areas that don't qualify—and this goes to Dr. Humiston. Can you speak to how the current definition limits investment in rural economics, and how changes in the definition drives investment in climate-smart technology? I mean, this is very, very important because I can give you an example. When I speak about Jacksonville, before you get into the City of Jacksonville, it might be 40 or 50 miles in the city. It affects counties like Baker that is right outside, because they are in that urban municipal service area. What can we do to change that?

Dr. HUMISTON. So, several years ago we did create new language about the Rural Development's business programs that would allow construction of food manufacturing processing facilities in larger cities. In essence, we took the population limits off, because those facilities were directly serving farmers. To the degree we can start being smarter about all of the Rural Development programs to make sure they are serving rural needs—Rural Development, that is the name—we need to quit thinking about population as the only criteria for eligibility to these, and it is across all the Rural Devel-

opment programs. It is just a matter of being smarter about how we serve rural and what rural is.

The CHAIRMAN. Thank you very much. The gentleman's time has expired.

Mr. LAWSON. I yield back, Mr. Chairman.

The CHAIRMAN. Thank you.

Ladies and gentlemen, this comes to a conclusion of our hearing, and I want to thank you on behalf of our House Agriculture Committee. I want to thank all of our witnesses. Your testimony has been very helpful on this very, very important issue, and all of the issues that we have covered this morning in terms of perspectives on how our farm bill programs are meeting their missions, while helping to develop and implement solutions to the climate crisis and supporting our agriculture producers and our rural communities. It is very important to me that we look at all the ways that farmers are using our farm bill programs to mitigate climate change, among all the other issues that we have been faced with.

In Georgia, we have seen more frequent natural disasters. Hurricane Matthew in 2016, Hurricane Irma in 2017, and Hurricane Michael in 2018, back-to-back. We see them lined up coming off the African coast into the islands, and then devastating our most fertile agriculture territory, which is the southeastern United States. And these extreme weather patterns throughout our country is certainly getting worse, and it is very important that we have heard from you today in terms of your thoughts on how we can address these as we move through and develop our next farm bill so that we can reverse this trend through farming practices that many of our farmers are doing here. Regardless of what it is, we now have things like carbon credits. We have different ways of assisting and partnering with our farmers. Some in this want to do it by carbon credits. They want to do it by how much soil—carbon our farmers can sequester. Others by cover crops. We are having difficulty in how we label and define all these areas. It is new for us, and that is why it is important for us not to run from this, but to solve it. We can solve these fires. They are burning up so much. Many of our livestock and animals are burned up in those fires.

And so, I want to thank each of you. We have had a great hearing, and in terms of our farm bill so that we can serve the needs of our great farmers and our great nation.

And so, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from our witnesses to any questions posed by a Member. And so, this hearing is now adjourned. Thank you.

[Whereupon, at 1:50 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

March 24, 2022

Hon. THOMAS J. VILSACK,
Secretary,
U.S. Department of Agriculture,
Washington, D.C.;

Hon. SAMANTHA POWER,
Administrator,
U.S. Agency for International Develop-
ment,
Washington, D.C.

Dear Secretary Vilsack and Administrator Power,

We write to urge you to leverage the resources available in the Bill Emerson Humanitarian Trust (BEHT), an emergency international food aid program administered by the United States Department of Agriculture (USDA) and the United States Administration for International Development (USAID), to help address ongoing humanitarian food crises. The deteriorating state of global food security and the ongoing pressures on availability of commodity food assistance resources warrant the dispersion of those funds.

Over the past year we have seen the emergency food and nutrition needs of hungry citizens around the world intensify, resulting from events such as the COVID-19 Pandemic, conflicts, and natural disasters. The USDA estimates that around 1.2 billion people were food-insecure in 2021, a 32 percent increase from 2020, and recent trends indicate that the number is on the rise. In countries such as Afghanistan, the Democratic Republic of the Congo, Ethiopia, Haiti, South Sudan, Syria, and Yemen, we have seen a dire need for food assistance.

The immediate need for aid, particularly commodities, will likely increase in light of Russia's unprovoked invasion of Ukraine. Ukraine is a large producer of wheat and grain, and if production levels drop it is likely that we will see corresponding pressure in the global grain markets. This may be compounded by further shocks to global grain, energy, and fertilizer supply, as Russia is rightfully sanctioned for its actions. Together, Russia and Ukraine supply 26 percent of global wheat exports and Ukraine supplies 13 percent of the world's corn. Supply shortages or increased prices will disproportionately impact developing and middle-income countries that rely heavily on imports of food.

In light of these complex and disturbing circumstances, we request that you use the BEHT to bolster American assistance to hungry people around the world. The trust was created for use during times of exceptional need, and the acute hunger crises that too many people are experiencing justifies the use of these funds.

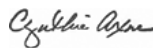
Sincerely,



Hon. DAVID SCOTT,
Chairman



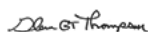
Hon. ALMA S. ADAMS,
Member of Congress



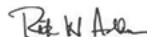
Hon. CYNTHIA AXNE,
Member of Congress



Hon. TROY BALDERSON,
Member of Congress



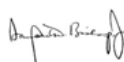
Hon. GLENN THOMPSON,
Ranking Member



Hon. RICK W. ALLEN,
Member of Congress



Hon. JAMES R. BAIRD,
Member of Congress



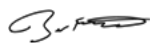
Hon. SANFORD D. BISHOP, JR.,
Member of Congress



Hon. CHERI BUSTOS,
Member of Congress



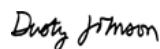
Hon. ANGIE CRAIG,
Member of Congress



Hon. RANDY FEENSTRA,
Member of Congress



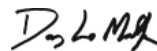
Hon. JOSH HARDER,
Member of Congress



Hon. DUSTY JOHNSON,
Member of Congress



Hon. RO KHANNA,
Member of Congress



Hon. DOUG LAMALFA,
Member of Congress



Hon. JULIA LETLOW,
Member of Congress



Hon. TRACEY MANN,
Member of Congress




Hon. JIM COSTA,
Member of Congress



Hon. ERIC A. "RICK" CRAWFORD,
Member of Congress



Hon. MICHELLE FISCHBACH,
Member of Congress



Hon. JAHANA HAYES,
Member of Congress



Hon. TRENT KELLY,
Member of Congress



Hon. ANN M. KUSTER,
Member of Congress



Hon. AL LAWSON, JR.,
Member of Congress



Hon. SEAN PATRICK MALONEY,
Member of Congress



Hon. JAMES P. MCGOVERN,
Member of Congress




Hon. BARRY MOORE,
Member of Congress



Hon. TOM O'HALLERAN,
Member of Congress



Hon. JIMMY PANETTA,
Member of Congress



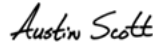
Hon. CHELLIE PINGREE,
Member of Congress



Hon. DAVID ROUZER,
Member of Congress



Hon. BOBBY L. RUSH,
Member of Congress



Hon. KIM SCHRIER,
Member of Congress



Hon. AUSTIN SCOTT,
Member of Congress



Hon. ABIGAIL DAVIS SPANBERGER,
Member of Congress

Hon. FILEMON VELA,
Member of Congress

SUBMITTED LETTER BY HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM GEORGIA; ON BEHALF OF SARAH GALLO, VICE PRESIDENT, AGRICULTURE AND ENVIRONMENT, BIOTECHNOLOGY INNOVATION ORGANIZATION

March 16, 2022

Hon. DAVID SCOTT,
Chairman,
U.S. House of Representatives,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
U.S. House of Representatives,
Washington, D.C.

Dear Chairman Scott, Ranking Member Thompson, and Members of the Committee:

The Biotechnology Innovation Organization (BIO) is pleased to submit a statement for the record the United States House of Representatives Committee on Agriculture hearing entitled, "A 2022 Review of the Farm Bill: The Role of USDA Programs in Addressing Climate Change."

Introduction

BIO¹ represents 1,000 members in a biotech ecosystem with a central mission—to advance public policy that supports a wide range of companies and academic research centers that are working to apply biology and technology in the energy, agriculture, manufacturing, and health sectors to improve the lives of people and the health of the planet. BIO is committed to speaking up for the millions of families around the globe who depend upon our success. We will drive a revolution that aims to cure patients, protect our climate, and nourish humanity.

BIO supports testimony delivered at the hearing on behalf of the Food and Agriculture Climate Alliance (FACA). As a member of FACA, BIO believes that the Coalition's shared climate policy priorities, developed by organizations representing farmers, ranchers, forest owners, the food sector, state governments and environmental advocates, can greatly inform the work of the Committee.

¹<https://www.bio.org/>.

Addressing Climate Change with Innovation

As Congress begins the process of authorizing the next farm bill, BIO applauds the Committee for exploring how climate change can be addressed through the U.S. Department of Agriculture (USDA) and the farm bill.

Last year, when the Committee held its hearing, “Climate Change and the U.S. Agriculture and Forestry Sectors,” BIO noted in its statement for the record² that to meet the challenge of climate change, it is crucial to lead with science and innovation.

A farm bill centered on innovation stands to incentivize the adoption of cutting-edge technologies and practices, resulting in benefits to the environment and rural economies. Farmers, ranchers, sustainable fuels producers and manufacturers need comprehensive legislation, like the farm bill, to deliver a strong message; namely, biotechnology offers immediate and long-term answers to combat climate change. And to maintain U.S. leadership, programs must be supported by streamlined and expedited regulatory pathways for breakthrough technology solutions.

At its core, the farm bill promotes durability. The next farm bill offers a timely opportunity to examine innovation’s influence on the resiliency of our economy in the face of global climate challenges. It also provides an unparalleled platform to grow trust in the innovation ecosystem, so more communities and consumers can embrace deployment of biotechnology with confidence and enthusiasm.

USDA Farm Bill and Climate Programs

BIO believes the government can and should play a catalytic role in providing guidelines for carbon markets. As the Committee examines how USDA programs can address climate change and interact with existing ecosystem markets, it should support government-established infrastructure to measure and verify carbon sequestrations at the local farm level. This will ensure both USDA programs and private markets will be successful and operate with credibility. It also will enable producers to invest in and adopt innovative technologies to reduce emissions and be properly rewarded.

Agriculture continues to play a positive role in tackling climate challenges—precision plant breeding, biostimulants, microbial inoculants, enhanced animal feed with enzymes—each of these cutting-edge innovations is reducing emissions and helping domestic producers adapt to a changing environment and bolster productivity. Carbon markets and other USDA programs must keep pace and continue to foster acceptance for new technologies, thereby protecting the stability of the agricultural supply chain.

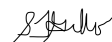
However, without clear direction from USDA on its role, it is difficult for innovators to model the environmental benefits and leverage the financial resources needed to bring critical technologies to market. Additionally, it is virtually impossible for individual farmers, ranchers, or foresters to comprehend the myriad programs in the marketplace and readily assess the impacts to their own operations. If we want to realize the benefits of sequestering carbon dioxide in the soil, improving soil health, and protecting waterways, we must clearly define roles and responsibilities for both government and the private-sector.

Conclusion

The agricultural innovations that BIO’s member companies are developing will allow producers to sustainably provide the food, feed, fuel, and fiber needed for a growing world. The development and deployment of these technologies will be crucial to helping farmers and ranchers be a part of the solution to climate change and provide them with the tools to be self-sustaining and resilient to a volatile climate.

BIO is committed to working with the Committee toward the development of the next farm bill that will address the climate crisis and support innovation in agriculture.

Sincerely,



SARAH GALLO,
Vice President, Agriculture and Environment,
Biotechnology Innovation Organization.

² <https://www.bio.org/letters-testimony-comments/bio-submits-testimony-first-climate-hearing-new-house-agriculture>.³ †

* **Editor’s note:** excerpt of hearing entitled, *Climate Change and the U.S. Agriculture and Forestry Sectors* † is retained in Committee file.

SUBMITTED STATEMENTS BY HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS
FROM GEORGIA

STATEMENT 1

ON BEHALF OF CINDY CLARK, SENIOR POLICY MANAGER REGENERATIVE AGRICULTURE
POLICY, CERES

Ceres Climate-Smart Agriculture and Healthy Soil Working Group Statement

The Ceres Climate-Smart Agriculture and Healthy Soil Working Group, a part of the *Ceres Policy Network*,^{1*} is a coalition of major food and fiber companies that are committed to addressing climate change through joint action on agriculture. These companies are increasingly involved in working directly with farmers, in ways that benefit both parties, and with the U.S. Department of Agriculture (USDA).

These companies share a recognition that **expanding nature-based climate solutions, including forests, grasslands, and other natural ecology, while adopting climate-smart agriculture practices, is critical to limiting global warming to 1.5° Celsius**, which scientists say is necessary to avoid further catastrophic impacts of the climate crisis. Already, the climate crisis is getting worse—it has become brutally clear is that without urgent and robust action, climate change will remain a tremendous threat to our economic, financial, and human well-being.

We commend the House Agriculture Committee for holding this hearing to review the role of USDA programs in addressing climate change. With American agriculture contributing about 10% of U.S. greenhouse gas emissions, this important discussion comes as we increasingly focus on the threat from climate change to our food supply and our national security. To do its part meet the goal of limiting warming to 1.5° Celsius, the U.S. has set a target to cut emissions in half by 2030 and achieve a net zero emissions economy by 2050. This means we *have only 8 years to meet our 2030 goals* and get on track to limit the climate threats that only grow more ominous.

There are many ways that farm bill policies can accelerate the drive to net-zero. We see programs that exist throughout all 12 titles of the farm bill that should be focused through a climate lens.

- As our member companies partner with farmers to address climate change, the farmers often rely on farm bill **voluntary conservation programs**:
 - Funding for **technical assistance** is an enormous hurdle and we have encouraged USDA to re-imagine all aspects of technical assistance as we try to help scale up on-farm conservation.
 - **The land-grant and cooperative extension network** is also a valuable resource for farmers and could be better incorporated into the provision of technical assistance, helping farmers to evaluate and incorporate climate smart agricultural practices.
 - **“Train the trainer” programs**, particularly at our historically black colleges, Tribal colleges, and Hispanic-serving institutions, can also significantly expand capacity and ensure that the profit opportunities from new ecosystems markets are available to all farmers.
- **The demand for better practice outcome data and data interoperability** is a key theme that runs throughout farm bill programs, from commodity subsidies to forestry programs to crop insurance. Private companies are collecting data from farm customers, in addition to the reporting farmers are required to provide to USDA in return for program payments. Through the farm bill, *USDA should develop a system where aggregated farm-level data can be shared with companies, and aggregated company-collected data can be shared with USDA.*
- Within the horticulture title, the **National Organic Program (NOP)** has long been the model for farms incorporating regenerative ag practices. Our working group has recommended to USDA that organic system plans could be streamlined with greenhouse gas protocols, including electronic record keeping to meet both NOP planning and ecosystem market needs.

This farm bill must resist the temptation to solve past problems. It must plan for the future, because the future is here already. **The climate crisis is a trade issue,**

¹<https://www.ceres.org/networks/ceres-policy-network>.†

* **Editor’s note:** references annotated with † are retained in Committee file.

a nutrition issue, a rural development issue—it affects every title of the farm bill, just as the farm bill affects every single American. Congratulations to the House Agriculture Committee for recognizing this.

CINDY CLARK,
Senior Policy Manager Regenerative Agriculture Policy,
Ceres.

*Ceres' Climate-Smart Agriculture and Healthy Soil Working Group*²

For more than 30 years, *Ceres*³ has brought together the most influential capital market leaders to solve the world's greatest sustainability challenges. *Ceres' Climate Smart Agriculture and Healthy Soil Working Group* is made up of businesses from the *Ceres policy network*⁴ that are committed to advancing Federal regulation and legislation at the state and Federal levels that de-risk the efforts of farmers and ranchers to reduce greenhouse gas emissions, build climate resilience, and increase soil health. For information, please reach out to Cindy Clark ([Redacted]).

STATEMENT 2

ON BEHALF OF TED MC KINNEY, CHIEF EXECUTIVE OFFICER, NATIONAL ASSOCIATION OF STATE DEPARTMENTS OF AGRICULTURE

On behalf of the National Association of State Departments of Agriculture (NASDA), we appreciate the opportunity to submit this statement outlining the priorities of state departments of agriculture on policies related to the roles of USDA programs in addressing climate change. We request that this statement be included in the record.

NASDA represents the commissioners, secretaries, and directors of the state departments of agriculture in all 50 states and four U.S. Territories. State departments of agriculture serve as advocates for the productive use of America's farmland while also being a trusted resource to our nation's farmers and ranchers who want to participate in USDA's conservation programs. In fact, many producers are the direct beneficiaries of the successes of innovative state conservation programs in addition to USDA's programs.

In this role, NASDA encourages the Committee to ensure Congress and USDA work in partnership with state departments of agriculture to make the next farm bill the most impactful yet. NASDA members recognize the achievements of current conservation programs but also recognize many of these programs have become oversubscribed. As the Committee begins hearings on the 2023 Farm Bill, NASDA has recommendations to improve USDA's conservation programs.

NASDA recommends the Committee include the following policies as it begins consideration of the 2023 Farm Bill:

- Protect the voluntary status of the current conservation programs, while creating voluntary, incentive-based climate smart agricultural programs that are practical and provide benefits for farmers and ranchers.
- Invest in the successful conservation programs such as EQIP, ACEP, CSP, and RCPP.
- Streamline the process, reduce barriers to access, and increase flexibility for conservation programs, which will allow state partners to achieve the best outcomes.
- Enact policies that credit ongoing efforts of many farmers and ranchers that have previously adapted climate smart strategies to reduce emissions, sequester carbon, and improve resiliency.
- Implement climate policies that focus on advancing science-based outcomes.
- Promote fairness and equity within the agriculture community through climate solutions.

Since 2020, NASDA has been a founding member of the Food and Agriculture Climate Alliance. This alliance is dedicated to working together to promote voluntary, incentive-based, science-based, and bipartisan solutions to climate change. NASDA supports the recommendations from the Food and Agriculture Climate Alliance.

² <https://www.ceres.org/networks/ceres-policy-network/climate-smart-agriculture-and-healthy-soil-working-group>.†

³ <https://www.ceres.org/homepage>.

⁴ <https://www.ceres.org/networks/ceres-policy-network>.

NASDA stands ready to assist this Committee as it begins consideration of the 2023 Farm Bill.

Please contact Zachary Gihorski ((Redacted)) if you have any questions or would like any additional information.

SUBMITTED LETTER BY HON. RICK W. ALLEN, A REPRESENTATIVE IN CONGRESS FROM GEORGIA

February 28, 2022

Hon. JOSEPH R. BIDEN,
President of the United States,
 White House,
 Washington, D.C.

Dear President Biden:

Over the last few days, we have seen Russia launch an unjustified war against a sovereign nation and our strategic partner, Ukraine. We unequivocally condemn Russian President Vladimir Putin and his attacks, which have put the lives of millions and security of Europe in grave danger. However, rather than take concrete steps to deter President Putin, your Administration's energy policies have only emboldened his actions. Specifically, your gift of the Nord Stream 2 Pipeline granted Putin more control over energy in the region while at the same time, your policies weakened America's energy independence.

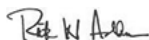
Energy independence is critical to national security, as our adversaries like Russia understand the world is now more dependent on foreign oil and natural gas. That's why we are demanding that your Administration immediately restore the oil production policies that were established in 2017 under the Trump Administration. Under these policies, America was energy independent. The past Administration lifted the ban on Federal leasing for coal production and lifted restrictions put in place during the Obama Administration that killed the production of oil, natural gas and shale energy through the Clean Power Plan.¹ Furthermore, President Trump signed a memorandum restoring construction of the Keystone XL Pipeline, providing a safe and reliable way to transport energy resources between the United States and Canada to strengthen America's energy security and generating billions in revenue to boost economic growth.²

In contrast, one of your first actions as President was to kill American energy independence by issuing an Executive Order revoking the permits for the Keystone XL Pipeline, a first signal to adversaries like Russia that America would be dependent on foreign oil.³ And yet, even in the midst of the impending military invasion, on February 17, 2022, the Federal Energy Regulatory Commission (FERC) released updated guidance to delay and deny natural gas pipeline projects.⁴

These misguided policies have left the American people paying skyrocketing prices at the gas pump and empowered Russia to invade Ukraine, which will only result in gas prices continuing to surge for Americans and our European allies.

Failed policies by your Administration have devastating impacts, both at home and abroad. As you come before Congress and our country to deliver the State of the Union, we urge you to include in your speech a strong commitment to the American people that you will end this war on American energy, restore the Trump Administration policies to spur domestic oil production, and restore the Keystone XL pipeline. America must once again be energy independent so the world less reliant on malign actors.

Sincerely,



Hon. RICK W. ALLEN,
Member of Congress

¹ <https://trumpwhitehouse.archives.gov/briefings-statements/president-trumps-energy-independence-policy/>.

² <https://2017-2021.state.gov/wp-content/uploads/2019/02/Federal-Register-Memorandum-for-Construction-of-the-Keystone-XL-Pipeline.pdf>.

³ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/>.

⁴ <https://www.ferc.gov/news-events/news/ferc-updates-policies-guide-natural-gas-project-certifications>.



Hon. SCOTT PERRY,
Member of Congress



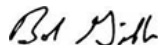
Hon. LOUIE GOHMERT,
Member of Congress



Hon. JODY B. HICE,
Member of Congress



Hon. TOM MCCLINTOCK,
Member of Congress



Hon. BOB GIBBS,
Member of Congress



Hon. BOB GOOD,
Member of Congress



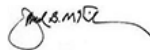
Hon. AUSTIN SCOTT,
Member of Congress




Hon. DAVID G. VALADAO,
Member of Congress



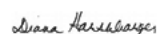
Hon. A. DREW FERGUSON IV,
Member of Congress

Hon. DAVID B. MCKINLEY,
Member of Congress



Hon. MARY E. MILLER,
Member of Congress



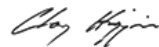
Hon. DIANA HARSHBARGER,
Member of Congress



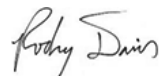
Hon. VICKY HARTZLER,
Member of Congress



Hon. LISA C. MCCLAIN,
Member of Congress



Hon. CLAY HIGGINS,
Member of Congress



Hon. RODNEY DAVIS,
Member of Congress



Hon. W. GREGORY STEUBE,
Member of Congress



Hon. EARL L. "BUDDY" CARTER,
Member of Congress



Hon. JIM BANKS,
Member of Congress



Hon. BILLY LONG,
Member of Congress



Hon. ALEXANDER X. MOONEY,
Member of Congress



Hon. CLAUDIA TENNEY,
Member of Congress



Hon. TROY BALDERSON,
Member of Congress



Hon. DAN BISHOP,
Member of Congress



Hon. MIKE ROGERS,
Member of Congress



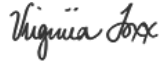
Hon. RALPH NORMAN,
Member of Congress



Hon. BRIAN BABIN,
Member of Congress



Hon. BEN CLINE,
Member of Congress



Hon. BILL HUIZENGA,
Member of Congress



Hon. VIRGINIA FOXX,
Member of Congress



Hon. BLAINE LUETKEMEYER,
Member of Congress



Hon. MARJORIE TAYLOR GREENE,
Member of Congress



Hon. BILL JOHNSON,
Member of Congress



Hon. TOM EMMER,
Member of Congress



Hon. MARIANNETTE MILLER-MEEKS,
Member of Congress



Hon. JOHN H. RUTHERFORD,
Member of Congress



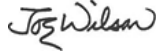
Hon. VICTORIA SPARTZ,

Hon. STEVE WOMACK,

Member of Congress

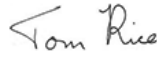


Hon. MARK E. GREEN,
Member of Congress



Hon. JOE WILSON,
Member of Congress

Member of Congress



Hon. TOM RICE,
Member of Congress

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. HEIDI HEITKAMP, CO-CHAIR, FARM AND FOREST CARBON SOLUTIONS TASK FORCE, BIPARTISAN POLICY CENTER

Insert 1

Mr. BAIRD. . . .

* * * * *
. . . would you care to elaborate on the importance of biotechnology and research and so on as we move forward in agriculture?
* * * * *

Mr. BAIRD. I am not sure, Mr. Chairman, how much time I have left, but if any of the other witnesses would like to comment—

The CHAIRMAN. Your time has expired, unfortunately.

Agricultural biotechnology involves an array of tools and approaches that can involve conventional breeding techniques and genetic engineering that are implemented to improve the health and sustainability of plants, animals, and microbes. Advances in biotechnology can enable scientists to introduce or suppress traits in organisms used for food, fiber, industry, and even pharmaceuticals.¹* Designed carefully, biotechnology and research present tremendous opportunities to improve agricultural sustainability, profitability, crop yields, soil health, and reduced need for water and chemical inputs. In short, research and innovation in this space and innovation can reduce risk and enhance resilience.

It is worth noting that the U.S. currently leads in the production of engineered crops, cultivating nearly 40% (185 million acres) of total genetically engineered crop acres planted worldwide. Our nation also leads globally the development of advanced genetic technologies and applying them to crops and livestock to enhance nutritional qualities, reduce allergenicity, enhance growth rates, reduce susceptibility to pests and diseases and reduce the dangers of animal rearing.

There are also unique opportunities in forestry biotechnology and research. According to the most recent national insect and disease risk assessment carried out in 2012 by the U.S. Forest Service, some 81.3 million acres—nearly seven percent of all U.S. forested land—are at risk of losing at least 25 percent of tree vegetation between 2013 and 2027 due to insects and diseases.² The severity of impact of these threats can be mitigated through land management practices and by biotechnology approaches to confer resistance to the vegetation at risk to enhance forest health. In fact, a recent National Academies report recommended further research on the mechanisms that govern trees' resistance to pests and adaptation to a changing climate. There is significant potential for both agricultural and forest biotechnology to enhance resilience and reduce risk.

Insert 2

Mr. FEENSTRA. . . .

* * * * *

¹ Congressional Research Service, 2021: *Agricultural Biotechnology: Overview, Regulation, and Selected Policy Issues* † (<https://sgp.fas.org/crs/misc/R46737.pdf>).

* **Editor's note:** footnotes annotated with † are retained in Committee file.

² National Academies of Sciences, Engineering, and Medicine, 2019: *Forest Health and Biotechnology: Possibilities and Considerations* † (<https://nap.nationalacademies.org/download/25221>).

Senator Heitkamp, how has the Title IX of the farm bill advanced cleaner burning domestic energy production that benefits farmers and the environment?

Ms. HEITKAMP. I would like to just repeat back to you, Congressman, what you just said. When you look at the actual reductions, you look at the opportunity, and I want to—I don't know if you guys could hear me when I was responding, but when we look at what the Iowa ethanol industry is doing and what South Dakota is doing and North Dakota is doing, they are looking at carbon capture to actually even expand on those numbers. Carbon capture behind the process which can even reduce their greenhouse impact greater. And so, I think that when [inaudible] access to the market by limiting infrastructure, or people who just don't like corn ethanol. [inaudible].

The CHAIRMAN. Senator, we are having a little more difficulty, but you can respond to that in writing.

Title IX of the farm bill has been critical in supporting research and development of agricultural and forestry feedstocks used to produce bioenergy, as well as financing commercial scale production facilities. As such, it helps the industry meet the demand for low-carbon biofuels created by the Renewable Fuel Standard and for wood-based bioenergy, while also supporting thousands of jobs throughout rural America. Today there is greater pressure on the biofuels industry to reduce its carbon footprint to better compete with other transportation fuels like electricity. It is my hope that Congress will reauthorize Title IX in the 2023 Farm Bill, and through that title, provide the financial resources necessary to enable research into ways that bioenergy industries can further decarbonize, including through reduced emissions from the on-farm supply chain to the collection and sequestration of carbon dioxide from biofuels production plants across the country.

SUPPLEMENTARY MATERIAL SUBMITTED BY SHAKERA RAYGOZA, OWNER, TERRA PRETA FARM; CFAP2 TECHNICAL ASSISTANT, NATIONAL YOUNG FARMERS COALITION

Insert 1

Mr. BAIRD. . . .

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* * * * *
 Mr. BAIRD. I am not sure, Mr. Chairman, how much time I have left, but if any of the other witnesses would like to comment—

The CHAIRMAN. Your time has expired, unfortunately.

Biotechnology and research is key to identifying new climate smart practices that are effective. We would support more producer guided programs and grants such as the Sustainable Agriculture Research & Education (SARE) program, a U.S. Department of Agriculture National Institute of Food and Agriculture (NIFA) grants and outreach program. SARE is the only farmer-led research program and a critical tool in helping farmers fight climate change. In addition to providing grant funding for farmers to lead research on sustainable agriculture, the program is also critical in peer-to-peer learning by sharing the research findings with other farmers across the country. Research from SARE helps small-scale, diversified farmers implement conservation practices and measure their climate mitigation impacts.

Insert 2

Mr. CARBAJAL. Thank you.

Ms. Raygoza, I don't know if I have enough time, but I agree with you that young farmers are the future. I want to help support these young, aspiring farmers succeed and produce food for our country. Do you think some type of workforce development partnership between USDA and community colleges would be useful to teach young farmers how to navigate USDA resources and learn about climate practices?

The CHAIRMAN. The gentleman's time has expired, but you may respond in writing to him. Thank you.

Yes, I support the development of partnerships between USDA and community colleges. USDA Beginning Farmers and Rancher Development programs in my region provided me with the technical support that my farm needed to begin. As the average age of farmers increases, more programs and partnerships are needed to

encourage young people to become farmers and to learn about the programs available to them at USDA.

Other ways to support young farmers include passage of the Civilian Climate Corps Act, making college more affordable, and canceling student debt, as student debt is one of the top issues preventing aspiring farmers from entering the field.

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. GLENDA HUMISTON, PH.D., VICE PRESIDENT, AGRICULTURE AND NATURAL RESOURCES, UNIVERSITY OF CALIFORNIA; DIRECTOR, AGRICULTURAL EXPERIMENT STATION AND COOPERATIVE EXTENSION SERVICE

Insert

Mr. BAIRD. . . .

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Mr. BAIRD. I am not sure, Mr. Chairman, how much time I have left, but if any of the other witnesses would like to comment—
The CHAIRMAN. Your time has expired, unfortunately.

Biotechnology allows farmers to grow more food on less land using farming practices that can be more environmentally sustainable. For example, seeds yielding more per acre, plants naturally resisting specific insect pests and diseases, and farming techniques designed to improve soil health and conservation. Biotechnology can also develop crops that are engineered to tolerate specific herbicides, which make weed control simpler and more efficient. Other examples include developing biofuels, improving plant growth, and enhancing animal health and breeding.

The positive aspects of biotechnology include nutritional quality improvement, transfer of the desired traits of plants and animals, and the minimization of pesticide use. However, some concerns have also been raised over biotechnology's potential to cause a decrease in biodiversity and a negative impact on health and the environment. Given the huge potential for positives, significant investment is needed in research to ensure that preferred outcomes are achieved.

SUPPLEMENTARY MATERIAL SUBMITTED BY JOE L. OUTLAW, PH.D., PROFESSOR, EXTENSION ECONOMIST, AND CO-DIRECTOR, DEPARTMENT OF AGRICULTURAL ECONOMICS, AGRICULTURAL AND FOOD POLICY CENTER, TEXAS A&M UNIVERSITY

Insert

Mr. BAIRD. . . .

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. . . would you care to elaborate on the importance of biotechnology and research and so on as we move forward in agriculture?

* * * * *
Mr. BAIRD. I am not sure, Mr. Chairman, how much time I have left, but if any of the other witnesses would like to comment—
The CHAIRMAN. Your time has expired, unfortunately.

Biotechnology research and research in general is incredibly important in increasing the productive capacity of the existing fixed land base and reducing the costs of production. While this is not my area of expertise, I understand that the U.S. is generally being outspent on agricultural research by many of our major competitors. Over time, this would be expected to erode any competitive advantage U.S. producers have over producers from other countries. Especially in those situations where governments control the development, production and availability of new technologies.

SUBMITTED LETTER BY EARTHJUSTICE

March 25, 202[2]

Hon. DAVID SCOTT,
Chairman,

House Committee on Agriculture ,
Washington, D.C.

Thank you for the opportunity to testify on the role of climate change in the agriculture sector, and how to take advantage of this sector's tremendous prospects to both reduce greenhouse gas (GHG) emissions and restore the amount of carbon lost from soil. This testimony highlights the need to prioritize agriculture's climate impact in the 2023 Farm Bill and offers recommendations on holistic, scalable approaches to agriculture and land management that should be incorporated into this critical legislation.

Agriculture must be part of any solution to the climate crisis. Agriculture is highly vulnerable to the more extreme and variable weather that climate change is bringing, and our food and economic security depend upon both stabilizing our climate and increasing the resilience of our food system. Agriculture is also a major contributor to climate change, and we cannot reach our climate goals without more aggressively and effectively addressing this contribution.^{1*}

The urgency of the climate crisis must be met with effective answers. The 2023 Farm Bill provides a powerful tool to address agriculture's contributions to climate change. We offer this testimony to address key impacts of climate change in agriculture and explore the following points:

1. The 2023 Farm Bill must consider and account for the true climate impact of agriculture, which should include the large climate impact of agricultural land use and accurately reflect the potent impact of methane and nitrous oxide emissions. The 2023 Farm Bill should incentivize the many agroecological practices that provide proven ways to reduce GHG emissions and sequester and store carbon. Scaling up these efforts and funding additional research into them offer effective mitigation tools to address the climate crisis.
2. The 2023 Farm Bill must center proven GHG reducing climate solutions while identifying and rejecting false solutions to address the climate crisis.
3. The 2023 Farm Bill must promulgate policies that meet the needs of all those who are a part of our food system, including workers and small-scale producers, and that enhance food justice, environmental justice, and economic justice.

Fortunately, agriculture can play a pivotal role in tackling the climate crisis. Implementation of well-documented climate-friendly agricultural practices can increase the amount of carbon removed from the atmosphere, increase the amount of carbon stored in soil, and/or reduce agricultural emissions of carbon dioxide, nitrous oxide, and methane. These practices will also often increase resilience to extreme weather, reduce environmental and public health harms, and, in most cases, over time, improve producer productivity or profitability. While proven, these practices are used on only small portions of U.S. farmland; policy changes are needed to dramatically accelerate their adoption. Crafting that policy is the task of this Committee, which has an important opportunity to make a huge impact and secure a resilient future through the 2023 Farm Bill.

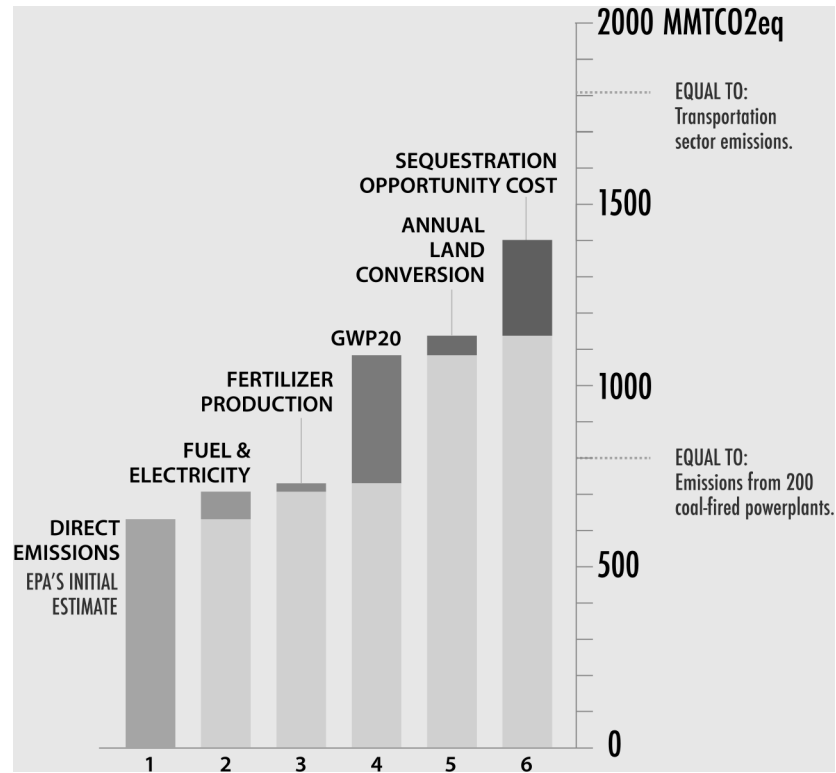
I. The 2023 Farm Bill Should Consider and Address Agriculture's True Climate Impact

Given the tremendous impact climate change has on the agriculture sector, agriculture's significant contributions to the warming planet, and the very real threat posed by the climate crisis, this Committee must consider climate in the 2023 Farm Bill. As part of this undertaking, it is imperative the Committee understands the true climate footprint of the agricultural sector.

¹See EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2019* † (2021), <https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf>. EPA concludes that agriculture's GHG emissions are about 10% of total U.S. GHG emissions; as explained below, this approach significantly understates the correct figure.

* **Editor's note:** references annotated with † are retained in Committee file.

Figure 1. Climate impacts of from the agriculture sector extend far beyond direct emissions on the farm.



Though the Environmental Protection Agency (EPA) estimates that agriculture is responsible for about 10% of U.S. GHG emissions (see *Figure 1*, Bar 1),² this figure excludes many factors that contribute additional emissions from the sector. This figure does not account for emissions from on-farm fuel and electricity use (see *Figure 1*, Bar 2) or the significant emissions associated with the manufacture of agricultural inputs like fertilizer (see *Figure 1*, Bar 3).

Additionally, these estimates do not account for the impacts of methane on policy-relevant timescales, as EPA utilizes 100 year timeframes rather than a more relevant 20 year timeframe (GWP20) accurately reflecting methane's concentrated warming impacts (see *Figure 1*, Bar 4).³ While the 100 year timeframe is common in scientific analysis, the U.S. is now debating policies to reduce emissions far sooner so the 20 year timeframe is more relevant for such discussions. The IPCC has consistently noted the need to appropriately tailor GWP choices to their appropriate policy contexts.⁴ The 20 year timeframe has also been adopted in policy contexts at the state-level, including for example, New York state's greenhouse gas inventory and in its climate planning.⁵ This revised framework will help policy makers recog-

²See EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2019*† (2021), <https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf>.

³INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2013: The Physical Science Basis*† Ch. 8, at 714 tbl. 8–7 (2014) at 720.

⁴Priyadarshi R. Shukla, et al., *Intergovernmental Panel on Climate Change, Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*.†

⁵N.Y.S. Dep't Env't Conservation, *2021 Statewide Greenhouse Gas Emissions Report*† (2021), https://www.dec.ny.gov/docs/administration_pdf/ghgsumrpt21.pdf. See also, Robert W. Howarth, *Methane emissions from fossil fuels: exploring recent changes in greenhouse-gas report-*

nize the tremendous importance of methane abatement, showing that agricultural methane emissions alone are about 10% of all U.S. GHG emissions on a policy relevant timescale. (See *Figures 2 and 3*).

Figure 2. Greenhouse gas emissions calculated according to 100 year and 20 year global warming potentials (GWP), showing the significant impact of timescale on estimating methane emissions.

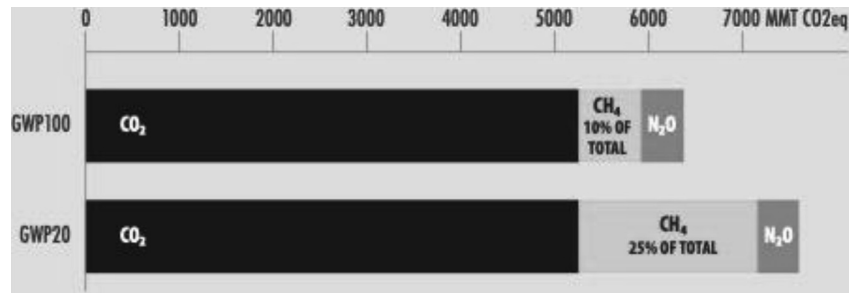
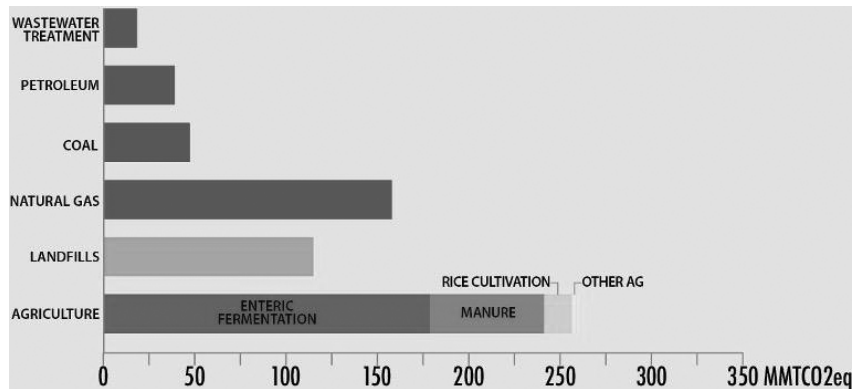


Figure 3. Anthropogenic methane emissions by source. EPA 2019. Inventory of Greenhouse gas emissions and sinks.



A major omission in this account of agriculture's climate footprint is related to land use. Each year, the conversion of grassland or forest to cropland and grazing land results in enormous losses of stored carbon. This is included in EPA's GHG Inventory but in another section attributed to another sector, while it is really a function of agriculture. See *Figure 1*, Bar 5.

In addition, the true climate impact of clearing land for agriculture extends well beyond immediate losses from land conversion.⁶ The use of land for growing crops or raising livestock—62% of the contiguous United States—precludes this land from continuing to sequester carbon at the rates it would have had that land been left undisturbed as native vegetation. Full climate impact would include the “quantity of carbon that could be sequestered annually if [that land] were instead devoted to regenerating forest [or grassland].” See *Figure 1*, Bar 6. Adding this continuing yearly impact of prior land conversion to the annual agricultural system emissions significantly increases agriculture's true climate change footprint.⁷

Thus, when correctly calculated to include all agriculture related climate change impacts, it is clear that the overall impact of agriculture to climate change is equivalent to far more than only 10% of U.S. GHG emissions. A more complete account-

ing requirements for the State of New York, 17 J. INTEGRATIVE ENV'T SCI. 69–81 (2020),[†] <https://doi.org/10.1080/1943815X.2020.1789666>.

⁶Matthew Hayek, et al., *The Carbon Opportunity Cost of Animal-Sourced Food Production on Land*,[†] 4 NATURE SUSTAINABILITY 21 (Jan. 2021)

⁷See EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2019* (2021) at 2–3, Table 2–1, <https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf>.

ing of these contributions including each of the factors laid out above raises this estimate closer in magnitude to total emissions from the transportation sector—and thus Congress must treat abatement of these emissions with equal importance. This estimate is in line with numerous recent estimates at the global scale, which place food and agricultural emissions at $\frac{1}{3}$ or more of anthropogenic greenhouse gas emissions.⁸

In addition to recognizing the broad climate impact of agriculture and the many ways in which this accounting is often underestimated by a failure to consider the factors above, it is also important to note that estimates of methane emissions from animal agriculture and soil nitrous oxide emissions are among the most uncertain⁹ and likely underestimated emission sources in EPA's GHG inventory. Improved measurement, monitoring and reporting is critical to establishing a valid baseline to guide efforts for emission reductions from agriculture. In particular, several recent studies indicate that estimates of methane emissions from animal agriculture substantially underestimate actual emissions.¹⁰

Any solution to the climate crisis must focus not only on agriculture's potential to store more carbon in the soil, but also on the need to reduce agriculture's GHG emissions. The 2023 Farm Bill presents a powerful tool to address each of these sources of emissions in a way that not only ameliorates the threat of climate change, but also has the potential to increase agricultural productivity and farmer and rancher profitability.

II. The 2023 Farm Bill Should Incentivize Agroecological Practices that Provide Proven Ways to Reduce GHG Emissions and Sequester and Store Carbon in Soil.

Several climate-friendly practices with demonstrated benefits are available to reduce agriculture's GHG footprint. A large body of scientific literature, in addition to traditional knowledge and experience, support the environmental benefits of these practices, making them excellent candidates for effectively and efficiently increasing carbon sequestration, reducing GHG emissions, and building climate resiliency. However, due to financial and technical barriers, adoption of some of the most effective climate-friendly practices remains low. This Committee should include in the 2023 Farm Bill incentives for the adoption of practices with the greatest climate benefits, while also supporting continued research on how to most effectively adopt these practices at scale across the nation, as these practices offer a true climate solution while also leading to higher yields, fewer inputs, and thus greater profitability.

Agroforestry has a strong potential for restoring carbon stocks lost due to land conversion and increasing carbon sequestration relative to conventional farming—with realistic rates of adoption leading to carbon sequestration rates equal in magnitude to over a third of fossil fuel emissions in the U.S.¹¹ Agroforestry practices, including alley cropping, silvopasture, and riparian forest buffers, integrate or reintroduce woody vegetation into crop and animal farming systems where the landscape would naturally support such vegetation. Alley cropping systems integrate trees and shrubs into crop production, while silvopasture refers to the integration of trees and shrubs with livestock activities.¹²

Improved nutrient management is another practice with enormous climate benefits. Synthetic nitrogen fertilizer application and other agricultural soil management practices account for about half (depending on timeframe of analysis) of GHG emissions from agriculture. In addition to representing a large proportion of the environmental footprint of agriculture, these emissions are responsible for over $\frac{3}{4}$ of all ni-

⁸*Id.* See Crippa, M., Solazzo, E., Guizzardi, D., et al. *Food systems are responsible for a third of global anthropogenic GHG emissions*. NAT. FOOD 2, 198–209 (2021). <https://doi.org/10.1038/s43016-021-00225-9>; See also, Sonja J. Vermeulen, et al., *Climate Change and Food Systems. Annual Review of Environment and Resources*, † 37 ANN. REV. ENV'T & RESOURCES 195 (2012).

⁹See Peter H. Lehner & Nathan A. Rosenberg, *Farming For Our Future: The Science, Law, and Policy of Climate-Neutral Agriculture* 54–57 (Environmental Law Inst. 2021).

¹⁰See Matthew N. Hayek & Scot M. Miller, *Underestimates of methane from intensively raised animals could undermine goals of sustainable development*, † 16 ENV'T RSCH. LETTERS 63006 (2021), <https://doi.org/10.1088/1748-9326/ac02ef> (and studies reviewed therein).

¹¹See Ranjith P. Udawatta & Shibu Jose, *Agroforestry Strategies to Sequester Carbon in Temperate North America*, 86 AGROFORESTRY SYS. 225 (2012).

¹²See, e.g., Shibu Jose & Sougata Bardhan, *Agroforestry for Biomass Production and Carbon Sequestration: An Overview*, † 86 AGROFORESTRY SYS. 105 (2012); see also Ranjith P. Udawatta & Shibu Jose, *Agroforestry Strategies to Sequester Carbon in Temperate North America*, 86 AGROFORESTRY SYS. 225 (2012).

trous oxide emissions across sectors in the U.S.¹³ Reducing nitrous oxide emissions from agriculture is particularly urgent as the warming potential of nitrous oxide is 265–298 times greater than carbon dioxide.¹⁴ Improving nutrient management practices, including precision application, cover crops and longer and more varied crop rotations (which naturally provide nutrients and thus reduce fertilizer needs), using natural rather than synthetic fertilizer (thus also avoiding the significant GHG emissions of fertilizer manufacturing), riparian buffers, and soil amendments, can greatly reduce the climate footprint of agriculture by reducing nitrous oxide and other emissions.¹⁵

Many of these practices will also help increase soil carbon sequestration, thus further reducing net GHG emissions. These practices build organic matter by introducing a wider range of inputs into soil, maintaining soil cover throughout the year, and minimizing soil disturbance and erosion.¹⁶ Moreover, these practices prevent nutrient runoff and improve water quality, increase water retention and thus reduce the need for water inputs, and even avoid air pollution. In addition, these practices can reduce the vulnerability of crops to pests and pathogens, thereby reducing the need for pesticides that are harmful to pollinators and water quality,¹⁷ and further help protect biodiversity and thriving rural communities.

Accelerating adoption of these practices through technical and financial support and incentives, as well as through the conservation compliance program, and protecting land in long-term conservation programs are among the most effective strategies to reduce the climate footprint of agriculture. At the same time, avoiding the further conversion of grasslands is one of the most impactful agricultural activities to mitigate climate change.¹⁸

In addition to cropland practices that can help mitigate climate change and build resilience to it, there are proven practices for grazing and raising livestock that can help achieve these goals and it is critical for the Committee to explore ways the 2023 Farm Bill can accelerate the adoption of these practices as well. Grazing is now conducted on about 800 million acres of the U.S.—the most widespread land use in the country. Managed rotational grazing systems have been shown¹⁹ to reduce soil loss and increase soil and plant carbon storage, helping to reduce net GHG emissions. Dry manure management produces a small fraction of the methane of the more typical wet management now used at most dairies and swine operations.²⁰ Feed optimization, methane destruction, and other measures can all reduce the GHG impact of livestock.

With most livestock and poultry raised in a relatively few facilities (see *Figure 4*), changed practices at a relatively few facilities can make a big climate difference. Currently, animals are raised in heavily concentrated conditions at a small proportion of operations: over 50% of dairy cows in the United States are in the 4% of operations that stock 1,000 or more dairy cows. More than 90% of hogs in the United States are in the 12% of facilities that stock 2,000 or more hogs, and more than ¾ of all cattle on feed in the United States are in the 5% of facilities that

¹³ See EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2018*, † 2–4 (2020), <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>.

¹⁴ *Id.* at 1–10, Table 1–3.

¹⁵ See Nat. Res. Conservation Serv., *Conservation Practice Standard Conservation, Nutrient Management Code 590* † (2012), https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046433.pdf.

¹⁶ See, e.g., Christopher Poeplau & Axel Dona, *Carbon Sequestration in Agricultural Soils via Cultivation of Cover crops—A Meta-analysis*, 33 AGRIC., ECOSYSTEMS & ENV'T 200 (2015); Jinshi Jian, et al., *A Meta-analysis of Global Cropland Soil Carbon Changes Due to Cover Cropping*, 143 SOIL BIOLOGY & BIOCHEMISTRY 107, 735 (2020); see also R. Lal, *Soil Carbon Sequestration and Aggregation By Cover Cropping*, 70 J. SOIL & WATER CONSERVATION 329 (2015); C. Tonitto, et al., *Replacing Bare Fallows With Cover Crops in Fertilizer-Intensive Cropping Systems: A Meta-analysis of Crop Yield and N Dynamics*, † 112 AGRIC., ECOSYSTEMS & ENV'T 58 (2006); Meagan E. Schipanski, *A Framework for Evaluating Ecosystem Services Provided By Cover Crops in Agroecosystems*, 125 AGRIC. SYS. 12 (2014); Jason P. Kaye & Miguel Quemada, *Using Cover Crops to Mitigate and Adapt to Climate Change. A Review*, † 37 AGRONOMY SUSTAINABLE DEV. 4 (2017).

¹⁷ See Giovanni Tamburini, et al., *Agricultural Diversification Promotes Multiple Ecosystem Services Without Compromising Yield*, † 6 SCI. ADVANCES 2020 eaba1715 (2020).

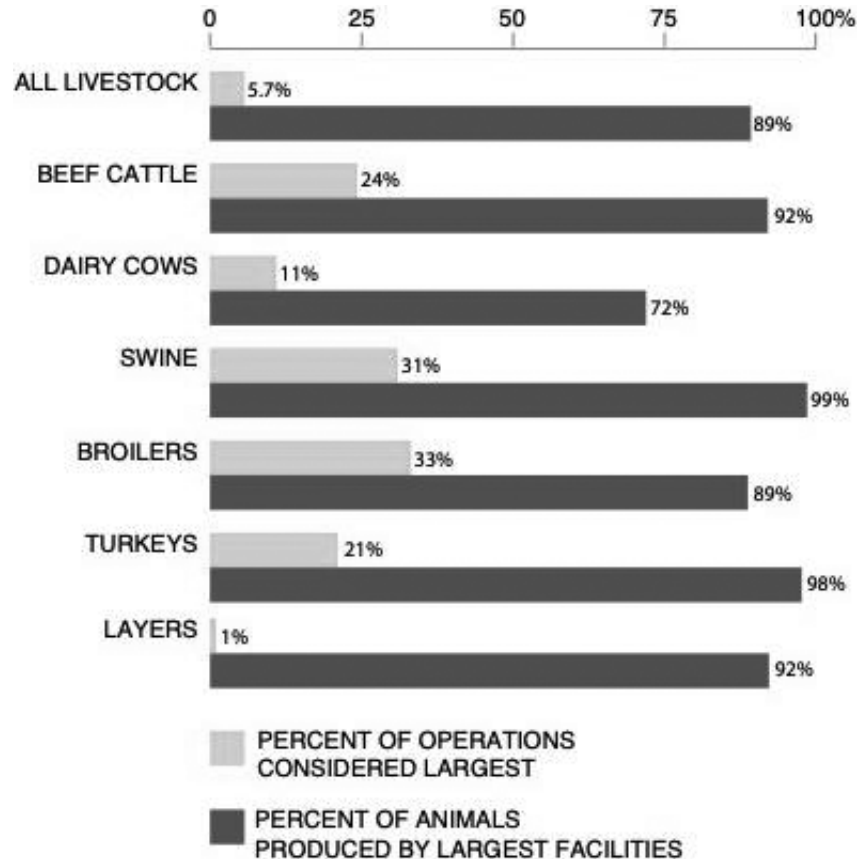
¹⁸ See Joseph E. Fargione, et al., *Natural Climate Solutions for the United States*, † 4 SCI. ADVANCES eaat1869 (2018).

¹⁹ See Peter H. Lehner & Nathan A. Rosenberg, *Farming For Our Future: The Science, Law, and Policy of Climate-Neutral Agriculture*, 84–88 (Environmental Law Inst. 2021).

²⁰ See IPCC, 2019 REFINEMENT TO THE 2006 IPCC GUIDELINES FOR NATIONAL GREENHOUSE GAS INVENTORIES. *Chapter 10: Emissions from Livestock and Manure Management* † (2019). https://www.ipccnggip.iges.or.jp/public/2019r/f/pdf/4_Volume4/19R_V4_Ch10_Livestock.pdf.

stock 1,000 or more cattle.²¹ Given that greenhouse gas emissions from enteric fermentation and manure are largely dependent on the number of animals raised in facilities, reducing emissions from these largest facilities has the potential to cut back total emissions significantly.

Figure 4. Concentration of U.S. Livestock by Facility Size. Data from USDA Census of Agriculture.



Each of these practices has proven climate benefits. They can increase the amount of carbon removed from the atmosphere, help restore the amount of carbon stored in soil, and/or reduce agricultural emissions of carbon dioxide, nitrous oxide, and methane. These practices will also often increase resilience to extreme weather, reduce environmental and public health harms, and, in most cases, over time, improve producer productivity or profitability. However, they are now used on only a small portion of U.S. grazing and crop land or animal operations. This Committee should focus on ways to greatly accelerate adoption of these practices, as well as increasing investment in research into their benefits and technical assistance to help with their adoption, when crafting the 2023 Farm Bill. Research, outreach and technical support, and financial assistance to increase adoption of these practices together would go a long way towards ameliorating agriculture's overall climate impact.

²¹ See USDA National Agriculture Statistics Service state level data: <https://sustainablefoodfarming.shinyapps.io/CAFOINVENTORY/>.

III. The 2023 Farm Bill Should Center Climate Solutions and Equitable Access To USDA Programs

In the 2023 Farm Bill, Congress has both an opportunity and obligation to invest in agricultural solutions to the climate crisis and empower farmers and ranchers to play key roles in addressing the warming climate. We urge Congress to consider policy solutions and programs that incentivize adoption of climate-friendly practices that are proven to sequester carbon and reduce GHG emissions. These practices not only effectively reduce agriculture's climate footprint, but they also help build resilience, improve water and air quality, and protect biodiversity. The 2023 Farm Bill provides a powerful ready-made tool that can provide funding for these practices, and for more research and technical assistance related to them, in an effort to provide a true solution to the growing climate crisis.

This Committee should not only center agroecological practices in the 2023 Farm Bill, but it should also ensure that the policies and programs it funds in this legislation uplift the values of equity, inclusion, and dignity and that funding opportunities are equitably accessible to all producers. Congress and the USDA should recognize the traditional ecological knowledge from Black and Indigenous communities that have contributed to advancing environmental sustainability and responsible stewardship of natural resources. Many agroecological practices supported in USDA programs are rooted in traditional and ancestral knowledge from these communities. The farm bill should recognize these communities for their expertise and contribution, and Congress should advocate for Black, Indigenous People of Color (BIPOC) producers to benefit justly and fairly from USDA programs.

Due to a long, enduring history of discriminatory and exploitative practices—including systemic denial of farm loans and other assistance to BIPOC producers by the U.S. Department of Agriculture—most of the country's farm, crop and range land is owned by white farmers and ranchers.²² Discriminatory practices and policies continue to plague the agricultural sector. With this problematic history in mind, the 2023 Farm Bill must do more to remedy USDA's legacy of civil rights violations and racism that persists to this day by reforming current programs and funding schemes to address discriminatory practices. Congress should provide funding for technical assistance and outreach by diverse service providers with linguistic and cultural competency, partnering with community-based organizations and local community leaders who have earned trust of farmers and producers, employing BIPOC experts to lead trainings on issues unique and salient to local communities, and where possible, and make trainings and technical assistance opportunities credit-bearing in partnership with land grant universities. The farm bill should expand existing programs and offices that offer support and outreach to disadvantaged farmers and communities and should incorporate climate mitigation goals into these programs.

At the same time this Committee considers ways to incentivize the suite of proven agroecological climate-friendly practices in the 2023 Farm Bill, so too should it be wary of false climate solutions that have received recent attention, for example, biofuels, wood-based bioenergy (especially from whole trees), and biodigesters for livestock waste. Not only do many of these practices fail to reduce GHG emissions (when all factors are correctly analyzed), but they may in fact exacerbate them, while at the same time causing environmental and public health harms and worsening inequities in the agricultural system.

A large proportion of farm bill programs support animal agriculture, including financing many practices that entrench polluting systems rather than facilitating transitions towards a climate-friendly food system. In particular, anaerobic biodigesters are very costly and largely ineffective with limited overall climate mitigation potential, especially when compared to alternative [manure] management methods. Because anaerobic biodigesters rely on the production of methane to be profitable, they incentivize increasing methane production and promote waste generation without impacting the much larger share of methane emissions from enteric fermentation produced at these operations. They are also usually [deployed] on only the largest animal operations, so any public support for them effectively worsens the consolidation of the industry and inequities of the system. Digesters also continue to pose or exacerbate hazards through groundwater and surface water contamination, do not address and can increase nitrous oxide emissions, and do not address the runoff of nitrogen into waterways. Moreover, methane leakage from these facilities can be substantial, causing them to be net sources of methane rather than low-

²² See USDA National Agricultural Statistics Service *Census of Agriculture 2017*.

ering methane emissions.²³ Furthermore, biodigesters release additional pollutants such as nitrogen oxides (NO_x), sulfur dioxide, and particulate matter.²⁴

In addition, Congress should consider the demand side of the food and agricultural systems and the role it can play in contributing to and addressing the climate crisis. Demand for production of certain agricultural goods—including, for example, “renewable” biomass for biofuels (corn, soy) and foods with a higher climate footprint (beef, dairy)—drives sustained or increasing GHG emissions. Reducing demand for such products while incentivizing a shift to those with lower climate change impacts provides powerful opportunities for addressing the warming planet. Among other tools, the government’s procurement practices and marketing incentives should be closely considered.

Thus, as this Committee determines what practices to include in its toolbox for tackling the climate crisis through the farm bill, it should consider not just methods of reducing GHG emissions, but also the broader environmental and social effects of greater adoption of such practices, both positive and negative.

* * * * *

In sum, we urge the Committee to include a climate focus in the 2023 Farm Bill, given the role agriculture plays in the climate crisis and the tremendous opportunity it has to address it. The farm bill provides a ready-made tool that has powerful potential to reduce GHG emissions while improving productivity to feed the growing population, as well as increased profitability for our farmers and ranchers.

Respectfully submitted,

Earthjustice
Washington, D.C.

CC:

RANJANI PRABHAKAR (**[Redacted]**)
CARRIE APFEL
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SUBMITTED STATEMENT BY ENVIRONMENTAL WORKING GROUP

To avoid the worst effects of climate change, we must reduce greenhouse gas emissions from agriculture.

Agriculture is a significant and growing *source*¹ of greenhouse gas emissions that, if left unaddressed, will jeopardize our efforts to avoid a climate crisis. In particular, *nitrous oxide*² emissions from fertilizing crops and animal feed, and the *methane*³ emissions from livestock and their manure, are growing sources of greenhouse gas emissions. Unless we reduce nitrous oxide, carbon dioxide and methane emissions from agriculture, we will fail to make the greenhouse gas reductions *needed*⁴ to avoid the worst impacts of climate change.

Voluntary conservation programs administered by the Department of Agriculture (USDA) could play a significant role in reducing the impacts of farm pollution, reducing greenhouse gas emissions, and mitigating the effects of climate change.

Unfortunately, many farmers are *turned away by USDA*^{5*} when they apply to participate in voluntary conservation programs because the agency lacks the resources to accommodate them. Last year alone, more than 100,000 farmers were

²³ Montes, et al. 2013. American Society of Animal Science. 91: 5070–5094. *Mitigation of methane and nitrous oxide emissions from animal operations: a review of manure management mitigation options.*; † See also Dumont, et al. (2013). *Methane emissions in biogas production.* <https://www.sciencedirect.com/science/article/pii/B9780857094988500117>; See also Thomas Flesch, Raymond Desjardins and Devon Worth. (2011). *Fugitive methane emissions from an agricultural biodigester.*

²⁴ See Nicole Di Camillo (2011). *Methane Digesters and Biogas Recovery—Masking the Environmental Consequences of Industrial Concentrated Livestock Production.* † <https://escholarship.org/content/qt52g318rv/qt52g318rv.pdf?t=mv6dpu>.

¹ <https://cfpub.epa.gov/ghgdata/inventoryexplorer/#agriculture/entiresector/allgas/category/all>.

² <https://cfpub.epa.gov/ghgdata/inventoryexplorer/#allsectors/allsectors/nitrousoxide/inventsect/all>.

³ <https://cfpub.epa.gov/ghgdata/inventoryexplorer/#allsectors/allsectors/methane/inventsect/all>.

⁴ <https://www.science.org/doi/10.1126/science.aba7357>.

⁵ <https://www.ewg.org/news-insights/news/2021/08/growing-farm-conservation-backlog-shows-need-congress-spend-smarter>. †

* **Editor’s note:** references annotated with † are retained in Committee file.

turned away⁶ from USDA’s two flagship working lands conservation programs. What’s more, most USDA conservation funding flows to practices that fail to reduce emissions.

To meet the climate challenge, Congress must increase funding for conservation programs and must ensure that practices that reduce greenhouse gas emissions are prioritized. Fortunately, the same practices that reduce nitrous oxide and methane emissions also improve air and water quality and make our farms better able to withstand the extreme weather caused by climate change.

To address the climate crisis, the Committee should:

- Quickly enact the Build Back Better Act, which includes \$27 billion for conservation practices that reduce greenhouse gas emissions
- Make climate change the primary focus of working lands conservation programs.
- Make long-term and permanent easements the primary focus of land retirement and restoration programs.
- Support job creation in the *plant-based*⁷ and alternative protein sectors.
- Reduce support for conservation practices that do not reduce emissions.
- End support for “climate-dumb” conservation practices that increase emissions.

In the past year, USDA has taken steps to incorporate climate goals into conservation programs, including the establishment of a *pilot program*⁸ within EQIP, announcing a *new initiative*⁹ to finance the deployment of farming and forestry practices that reduce emissions, *creating*¹⁰ a new Climate-Smart Practice Incentive for general and continuous signups within the Conservation Reserve Program (CRP), and *releasing*¹¹ an updated list of agriculture and forestry practices that reduce emissions for the Conservation Stewardship Program (CSP) and EQIP.

Much more must be done to ensure that existing conservation programs are helping to meet our climate goals and to support job creation in the plant-based and alternative protein sectors.

For example,

- Most of the practices identified by states as “priority practices” to be eligible for 90 percent cost-share under EQIP do not reduce greenhouse gas emissions or, in some cases, actually increase emissions.
- Several practices eligible for enrollment in EQIP’s Conservation Incentive Contracts (CIC) either do not address greenhouse emissions or actually increase emissions.
- The list of CSP “climate-smart” agriculture and forestry practices does not include bundles of enhancements.
- Most Conservation Reserve Program acres are returned to production after contracts expire, releasing soil carbon into the atmosphere.
- Acres enrolled in the Conservation Reserve Enhancement Program have fallen.
- Agricultural land easements do not require that producers adopt any practices that reduce emissions as a condition of enrollment.
- While USDA has provided nearly \$50 billion¹² in subsidies to livestock operators since 1995, USDA has provided just \$30 million to support jobs in the plant-based protein industry.

Some “climate dumb” conservation practices *actually increase emissions*.¹³ Other practices and enhancements financed through EQIP and CSP provide little to no

⁶ <https://www.ewg.org/news-insights/news/2021/08/growing-farm-conservation-backlog-shows-need-congress-spend-smarter>.†

⁷ https://www.ewg.org/sites/default/files/2022-02/EWG_Testimony_House_Agriculture_Committee_-_Sustainability_in_the_Livestock_Sector_-_2-3-22.pdf.†

⁸ <https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=46894>.†

⁹ <https://www.usda.gov/media/press-releases/2021/09/29/usda-announces-3-billion-investment-agriculture-animal-health-and>.†

¹⁰ <https://www.fsa.usda.gov/news-room/news-releases/2021/usda-announces-new-initiative-to-quantify-climate-benefits-of-conservation-reserve-program>.

¹¹ <https://www.usda.gov/media/press-releases/2022/01/10/usda-offers-expanded-conservation-program-opportunities-support>.†

¹² <https://www.ewg.org/news-insights/news/2022/02/usda-livestock-subsidies-near-50-billion-ewg-analysis-finds>.†

¹³ https://www.ewg.org/sites/default/files/2022-02/EWG_Conservation_Testimony_-_Conservation_Programs_-_2-2-22.pdf.†

benefit to the environment or public health. According to *EWG analysis*,¹⁴ payments for these structures, equipment or facilities appeared in 1/3 of EQIP contracts but received nearly 2/3 of EQIP payments, diverting badly needed resources from proven practices.

Even if we stopped burning fossil fuels today, greenhouse gas emissions from food and farming could make a climate catastrophe unavoidable. Farmers are already bearing the brunt of the extreme weather caused by climate change. But, the devastating economic impacts of the climate crisis are not the only reason for farmers to act: as emissions from energy and transportation continue to fall, and emissions from fertilizer and animals grow due to rising protein demand, agriculture's contribution to the climate crisis will steadily increase. By 2050, greenhouse gas emissions from animals and the production of their feed could easily account for 1/3 of U.S. emissions

Thank you for the opportunity to submit testimony for the record.

SUBMITTED STATEMENT BY THE BREAKTHROUGH INSTITUTE

Despite being frequently overlooked in conversations about climate change, supporting public-agricultural research programs is a powerful, bipartisan climate mitigation strategy with clear economic co-benefits. Agricultural research benefits the climate by:

- Boosting agricultural productivity, enabling farmers to produce more food on less land, with fewer inputs and greenhouse gas emissions
- Advancing specific research areas—such as fertilizer innovation and methane-inhibiting cattle feed additives—with especially potential to reduce greenhouse gas emissions

Since the 1960s, innovation-driven productivity advances have enabled farmers to reduce land use by nine percent and cut the carbon footprint per pound of milk and chicken by over 50 percent.¹ Unfortunately, spending on agricultural research has stagnated, and much of our nation's agricultural research infrastructure is in disrepair. For example:

- Total public spending on agricultural research and development fell by nearly 30 percent between 2002 and 2015^{2*}
- Agricultural Research Service (ARS) facilities have about \$1 billion in deferred maintenance³
- Nearly 70 percent of agricultural research facilities at colleges and universities, for example, are near the end of their useful life⁴

The Federal Government cannot rely on the private-sector to make up for insufficient public funding, for a few reasons:

- Public and private agricultural research are complements, not substitutes. The private-sector invests more in food and feed manufacturing and farm machinery engineering, while the public-sector conducts nearly all research related to the environment and natural resources, human nutrition, and food safety.⁵ In addition, public agricultural research tends to spur additional private-sector investments in research.⁶

¹⁴<https://conservation.ewg.org/>.

¹FAOSTAT. <https://www.fao.org/faostat/en/#home>.

²USDA ERS. "Agricultural Research Funding in the Public and Private Sectors" † <https://www.ers.usda.gov/data-products/agricultural-research-funding-in-the-public-and-private-sectors/>.

³**Editor's note:** references annotated with † are retained in Committee file.

⁴Press Release. 2018. "King Announces Support for Legislation to Clear Maintenance Backlog, Improve Agricultural Research Facilities" † <https://www.king.senate.gov/newsroom/press-releases/king-announces-support-for-legislation-to-clear-maintenance-backlog-improve-agricultural-research-facilities>.

⁵APLU. 2021. "New Study Sounds Alarm about Agriculture School Infrastructure." † <https://www.aplu.org/news-and-media/News/new-study-sounds-alarm-about-agriculture-school-infra-structure>.

⁶Matthew Clancy, Keith Fuglie, and Paul Heisey. 2016. "U.S. Agricultural R&D in an Era of Falling Public Funding" † *Amber Waves*. <https://www.ers.usda.gov/amber-waves/2016/november/us-agricultural-r-d-in-an-era-of-falling-public-funding/>.

⁷John King, Andrew Toole, and Keith Fuglie. 2012. "The Complementary Roles of the Public and Private Sectors in U.S. Agricultural Research and Development." † Economic Brief. Vol. 19. https://www.ers.usda.gov/webdocs/publications/42858/32186_eb19.pdf?v=0.:2.

- Environmentally and socially beneficial research often has a long payback period or is unlikely to result in commercializable products, making it unattractive for private-sector investments.

Increasing agricultural research funding in the 2023 Farm Bill—by boosting authorization levels for existing Title [VII] programs, authorizing new research programs, and providing some mandatory research funding—would yield huge climate and economic benefits. For example, relative to a business-as-usual scenario, doubling public agricultural research spending over 10 years would:

- Increase global crop production by 3.4 percentage points
- Reduce global crop prices by around 8.4 percentage points
- Reduce international agricultural land use by about 63,000 square miles (about the size of Iowa)
- Reduce global greenhouse gas emissions by at least 109 million metric tons carbon-dioxide equivalent per year (1/6 of U.S. agricultural emissions)⁷

Additional funding would allow USDA programs to accelerate research in high-impact areas, such as:

- Beef production—The U.S. could reduce emissions from beef production by 48% if existing and emerging mitigation technologies—such as methane-inhibiting feed additives for grazing cattle and low-carbon cattle breeding—were improved and fully adopted by 2030⁸
- Soil management—If applied on half of U.S. cropland, enhanced rock weathering, an innovative practice that entails spreading crushed silicate rocks on the soil, could remove around 0.4 billion tonnes of carbon dioxide from the atmosphere each year⁹

In order to adequately address the climate challenge, all USDA research programs and agencies will need sufficient funding so the Department can fund a diverse portfolio of agricultural research projects.

For More Information:

CAROLINE GRUNEWALD, *Government Affairs Manager of Food & Agriculture.*

SUBMITTED QUESTIONS

Response from Hon. Charles F. Conner, President and Chief Executive Officer, National Council of Farmer Cooperatives; Co-Chair, Food & Agriculture Climate Alliance

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. For the past couple years now, you've all heard me talk about the opportunity we have for climate to be a boon for agriculture rather than a boondoggle. One specific example I've spoken of many times, is the capability we already have for animal feed ingredients that improve the sustainability and enteric emissions of livestock, if only our regulatory system allowed for a pathway to approve these products. I'm proud that just last week we were able to secure additional funding to FDA's Center for Veterinary Medicine to continue working in this direction, but I fear this is still not keeping up with the innovation and technology that will be crucial to American agriculture's ability to sustainably feed the world ahead.

Can you touch on the importance of clear, science-based, and timely regulations from Federal agencies, so America's farmers can sustainability increase production and resilience in the face of climate change with less regulatory burden?

Answer. Congressman, you are exactly correct about increasing feed use efficiency or feed digestibility as an important means to further reduce the livestock and poultry sector's already small share of total U.S. greenhouse gas emissions. Quality re-

⁷Uris Baldos and Dan Blaustein-Rejto. 2021. "Investing in Public R&D for a Competitive and Sustainable US Agriculture." † <https://thebreakthrough.org/issues/food/investing-in-r-d-for-us-ag>.

⁸Dan Blaustein-Rejto, Alex Smith, and Emma Kovak. 2021. "The Clean Cow: Cutting the Carbon Footprint of US Beef Production." † <https://thebreakthrough.org/articles/the-clean-cow-web-version>.

⁹Beerling, D.J., et al. 2020. "Potential for large-scale CO₂ removal via enhanced rock weathering with croplands." † *Nature*, 583 (7815). pp. 242-248 <https://eprints.whiterose.ac.uk/163117/1/Beerling%20et%20al%20%282020%29%20CO2%20removal%20via%20ERW%20with%20croplands%20Nature.pdf>.

search in these areas will help agriculture and the climate. We need that research and an expedited regulatory approval process to support farmers' and ranchers' access to such technological innovations. These include improved genetics developed using a range of breeding methods, such as gene editing, genomic enabled predictive breeding, and genetic engineering.

You indicated a prime example of this when noting the lengthy regulatory approval process for feed additives and the significant impact these products can have on reducing emissions from livestock. It is important for FDA and other regulatory bodies to find an appropriate risk-based level of regulation of products such as feed additives or those utilizing biotechnology, without stalling innovation. We urge this Committee to take a closer look at the regulatory process for these innovative products such as feed additives which promote public health and animal well-being while reducing environmental impacts.

Additionally, we encourage all agencies that regulate the food and agriculture sector to take a look at modernizing and streamlining approaches toward regulating products of biotechnology, especially as they have the potential to mitigate climate impacts, in order to keep pace with science and allow agriculture to have a positive role in reducing our nation's collective impact on the climate.

Question 2. On a very similar note, I firmly believe the extraordinary achievements in biotechnology over the past several decades have given our farmers and ranchers innovative tools to produce higher yields with less inputs as well.

For example, genetically engineered Nitrogen-fixing bacteria is used as a biofertilizer to enhance the plants' nutrients all while reducing soil runoff. I feel these cutting-edge technologies are also crucial for the Administration's goal to achieve additional, measurable, and verifiable carbon reductions and sequestration in agriculture.

As the agriculture industry continues striving to play the role of a solution to climate change, what are ways to ensure farmers have access to and the interest in deploying new tools for climate impact such as biofertilizers and other biological products?

Answer. As you note Congressman, we are in the midst of tremendously exciting advancements in agriculture developed through the use of biotechnology that can help the farmers' and ranchers' bottom lines while making significant contributions to our country's climate change objectives. These innovative technologies allow new plant varieties and animal breeds to continue to produce more with less—less water, less land, fewer inputs, and lower emissions. With the publication of USDA's final SECURE Rule in August of 2020, the regulatory framework for USDA is set. However, we believe that there are other areas where USDA can assist with furthering the adoption of biotechnology and its corresponding benefits. For example, as part of its responsibility under the Coordinated Framework, USDA should continue to be proactive in encouraging the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) to publish risk- and science-based biotechnology regulations and guidance that foster innovation and increase the overall adoption of new biotechnologies.

Question 3. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Answer. We also believe methane digesters have the potential to play a major role in helping dairy and livestock operations reduce emissions, but as you said, producers experience various barriers to installing this technology on their operations. The biggest impediments we hear about from producers are the extraordinary upfront installation costs as well as the human and financial resources needed to maintain the functionality of the digester long-term. Furthermore, identifying and maintaining profitable outlets for energy produced by the digester, such as through natural gas pipelines or creating electricity for the grid that returns a fair price to the producer, are significant challenges. Farmers already have full-time jobs and often don't have the time, expertise or financial resources to maintain a digester in a way that increases their bottom line. This is especially true for smaller producers where the economics of having a digester do not pan out for their operation size. However, we believe farmer co-ops could play a major role in mitigating these costs

and risks, especially with the help of USDA programs such as the Rural Energy for America Program (REAP).

REAP is an oversubscribed program and is in critical need of additional funding to meet demand. Expanding REAP's eligible entities to include farmer co-ops, regardless of the co-op's size, would help facilitate the wider adoption of renewable energy technologies such as anaerobic digesters. Co-ops are already trusted partners for farmers and could therefore play a major role in assisting with the adoption of this technology on behalf of their members to take the burden off of their producer-owners. As you noted, these are highly effective climate mitigation tools for reducing, destroying and converting methane and nitrous oxide emissions from livestock manure and other waste. We just need to break down the significant barriers to adoption facing producers and make digesters a more viable tool in the agriculture industry's climate mitigation strategy.

Question 4. Last May, USDA announced a \$10 million initiative to quantify the climate benefits of CRP contracts. When we idle land in the U.S., it sends a market signal to U.S. competitors to plant more which can result in negative environmental outcomes. For example, in 2018, *Reuters* reported that as the world's largest soybean exporter, Brazil had plowed under more than ½ of the Cerrado, a vital storehouse for carbon dioxide.

Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Answer. The supply and demand effects of a CRP sign-up domestically and internationally can vary from being very great to quite small, depending on the type of land involved or being targeted in the sign-up, the number of acres involved, and the other major highly variable forces at work that drive supply and demand. Such effects can have implications for greenhouse gas emissions. So yes, in general, USDA should take the effects on carbon emissions into account when making a CRP sign-up decision but must do so along with multiple other considerations that are relevant to that decision. Given that these considerations do not all lead to the same conclusion, USDA's task is to find the correct balance.

Response from Kristin Weeks Duncanson, Owner and Partner, Duncanson Growers; Member, AGree Economic and Environmental Risk Coalition*

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. On a very similar note, I firmly believe the extraordinary achievements in biotechnology over the past several decades have given our farmers and ranchers innovative tools to produce higher yields with less inputs as well.

For example, genetically engineered Nitrogen-fixing bacteria is used as a biofertilizer to enhance the plants' nutrients all while reducing soil runoff. I feel these cutting-edge technologies are also crucial for the Administration's goal to achieve additional, measurable, and verifiable carbon reductions and sequestration in agriculture.

As the agriculture industry continues striving to play the role of a solution to climate change, what are ways to ensure farmers have access to and the interest in deploying new tools for climate impact such as biofertilizers and other biological products?

Answer. Innovation is critical in helping farmers address the threats from climate change. We try new things on our farm every year. This year we are again modifying our cover crop seed mix, growing rye as a cover to sell for seed, and transitioning 100 acres from conventional to organic corn.

Biologics are piquing the interest of farmers partly as a result of consumer demands for sustainability and partly because of widening weed resistance to traditional crop protection products. Farmers are usually quick to adapt biotechnology in many forms. The opportunity to reduce N use for cost and environmental reasons are good motivators for adapting to biologics but, like anything, you have to balance the use.

The trusted advisors that we consult will play the biggest role in deploying these technologies: our crop consultant, research from our land-grant universities, and our local co-op. And we all know that farmers watch either closely and farmer networks are key. When safer, more environmentally-friendly products work on one farmer's crop, her neighbors will take note.

Question 2. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts

* **Editor's note:** Ms. Duncanson did not have a response for *Questions 2-3*.

are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Question 3. Last May, USDA announced a \$10 million initiative to quantify the climate benefits of CRP contracts. When we idle land in the U.S., it sends a market signal to U.S. competitors to plant more which can result in negative environmental outcomes. For example, in 2018, *Reuters* reported that as the world's largest soybean exporter, Brazil had plowed under more than half of the Cerrado, a vital storehouse for carbon dioxide.

Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Response from Hon. Heidi Heitkamp, Co-Chair, Farm and Forest Carbon Solutions Task Force, Bipartisan Policy Center

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Answer. Anaerobic digesters work best at farms that collect large amounts of manure as a liquid or slurry each day. An anaerobic digester is a closed system that harnesses the natural process of anaerobic digestion to produce biogas and other useful coproducts. The U.S. Environmental Protection Agency (EPA) AgSTAR Program estimates that biogas recovery systems are technically feasible at over 8,000 large dairy and hog operations alone.¹ Overall, 317⁽¹⁾ anaerobic digesters are operating at livestock farms in the United States. Policy opportunities to address barriers and increase access to digester technology include:

- **Providing Financial Assistance:** One of the biggest obstacles to the widespread adoption of on-farm anaerobic digestion has been cost. To help pay for up-front capital costs, anaerobic digester operators may use several *funding sources*,⁽²⁾ * including grants, cash reimbursements, loan guarantees, industrial bonds, private funding, and other cost-sharing agreements. USDA programs that fund anaerobic digesters include the Rural Energy for America Program (REAP) and the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP).
- **Facilitating Connection to Markets:** In addition, up-front capital and operating costs may be offset by revenue generated from the digester system's operation. These include the sale of electricity, fuel, and other co-products—like soil amendments, compost, and fertilizer—that are generated by the system. Examples include innovative American-made fertilizer, seed and agriculture inputs, and retail, including access to retail through wholesale and distribution markets.²
- **Assisting with Project Planning and Development:** It can be complicated to ensure that enough funding will be available to make an individual anaerobic digester project pencil out in terms of both up-front capital costs and ongoing

¹AgSTAR: Biogas Recovery in the Agriculture Sector | U.S. EPA (<https://www.epa.gov/agstar>).

⁽¹⁾<https://www.epa.gov/agstar/livestock-anaerobic-digester-database>.

⁽²⁾https://www.epa.gov/sites/default/files/2014-12/documents/funding_digestion.pdf.†

* **Editor's note:** footnotes annotated with † are retained in Committee file.

²USDA Announces Plans for \$250 Million Investment to Support Innovative American-made Fertilizer to give US Farmers more choices in the Marketplace | USDA † (<https://www.usda.gov/media/press-releases/2022/03/11/usda-announces-plans-250-million-investment-support-innovative>).

operating and maintenance costs. Technical assistance is critical to break down information barriers, especially for medium and small farms. Anaerobic digesters can be worth the investment at a small farm depending on the rate obtained for the sale of electricity back to the local utility, from carbon credits, or from potential sales of system-related coproducts (*e.g.*, composts and fertilizers). Thermal applications for the biogas may be an excellent option in place of electricity generation. Also, smaller farms may benefit from co-digestion of other biomass feedstocks (*e.g.*, food scraps) to boost biogas production and increase the financial viability of the project. Examples include the aforementioned USDA REAP and the EPA AgStar programs.

- **Research & Development:** Use of anaerobic digestion at poultry and beef operations is also growing as new technologies enter the market. Although projects at poultry and beef farms are technically feasible, their economic feasibility can vary.

Question 2. Last May, USDA announced a \$10 million initiative to quantify the climate benefits of CRP contracts. When we idle land in the U.S., it sends a market signal to U.S. competitors to plant more which can result in negative environmental outcomes. For example, in 2018, *Reuters* reported that as the world's largest soybean exporter, Brazil had plowed under more than half of the Cerrado, a vital storehouse for carbon dioxide.

Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Answer. Many factors influence producer decisions to bring new lands into production or to enroll or re-enroll in programs like the USDA Conservation Reserve Program (CRP), including the overall availability of prime agricultural lands, costs of converting lands from rangeland or forests to cropland, expected soil moisture conditions and input costs. According to recent USDA analysis from the Natural Resources Inventory (NRI), only 1.3% of prime farmland is enrolled in the CRP, while 25 times this amount of prime farm acreage (or over 100 million acres) exists outside the program that is presently not in crop production and is managed as rangeland, pastureland, and forestland.³

With this additional supply of high-quality potential cropland already available and the relatively marginal production potential within CRP acreage, it is unlikely that a drastic change to farm CRP acres intensively would have significant impacts on overall production yields and thus influence global supply trends and equally complex planting and land-use decisions in foreign markets. While CRP likely has no measurable impact on deforestation rates in Brazil and associated emissions, USDA no doubt must maintain a vested interest in combating tropical deforestation and land conversion that results in harmful impacts to wildlife, water supplies and global greenhouse gas emissions.

USDA analysis also shows that CRP is no longer dominated by whole farm and whole field enrollment, but instead is comprised of grassland that is regularly hayed and grazed (especially under flexibility afforded under drought conditions), a series of small buffers, filter strips, and wetlands at the edges of fields (predominantly installed to provide targeted water quality benefits) and some lands in forests or shelterbelts. Accordingly, CRP is a vital part of producers' working lands operations, useful in adapting to changing climate conditions and integral to their commitments to stewardship and sustainability.

The capacity to quantify these conservation benefits remains critical to enhancing the value proposition of U.S. agriculture broadly and more specifically in ensuring that producers are acknowledged and accounted for through their commitments to combat climate change through voluntary and incentive-based programs. In response to corporate sustainability initiatives, emerging trade dynamics and other factors incorporating climate considerations in the marketplace, CRP is likely to continue to be an asset for U.S. producers.

Response from Shakera Raygoza, Owner, Terra Preta Farm; CFAP2 Technical Assistant, National Young Farmers Coalition

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts

³March 2022 Letter to Grain and Field Association from Secretary Vilsack regarding the Conservation Reserve Program and the Ukraine Crisis: † <https://www.politico.com/f/?id=0000017f-efb9-d0cd-a3ff-ffb9e0830000>.

are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Answer. Lack of awareness on anaerobic digesters, costs, and city regulations are the barriers we face. Young farmers also largely prefer other mechanisms for climate mitigation, such as compost management.

Question 2. Last May, USDA announced a \$10 million initiative to quantify the climate benefits of CRP contracts. When we idle land in the U.S., it sends a market signal to U.S. competitors to plant more which can result in negative environmental outcomes. For example, in 2018, *Reuters* reported that as the world's largest soybean exporter, Brazil had plowed under more than half of the Cerrado, a vital storehouse for carbon dioxide.

Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Answer. My recommendation is that USDA should focus on offsets domestically, as well as climate-smart agriculture, so that we can be leaders internationally on this front.

Response from Hon. Glenda Humiston, Ph.D., Vice President, Agriculture and Natural Resources, University of California; Director, Agricultural Experiment Station and Cooperative Extension Service

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Answer. Funding is needed for both support dairy farms installing equipment, such as CDFA's Dairy Digester Research and Development Program (DDRDP), and infrastructure to facilitate distribution of the renewable natural gas (RNG). This takes both investment and opportunities to scale up projects. Below is a great example:

Aemetis Biogas Central Dairy Digester Project's dairy renewable natural gas (RNG) cleanup and compression unit and interconnection with PG&E's gas pipeline in Keyes, California. This project involves a cluster that, when complete, will include 60 dairy farms. It currently counts eight dairy operations, funded partly by CDFA's Dairy Digester Research and Development Program (DDRDP) with more than \$11 million in 2018 and 2020. In addition to the CDFA funding, award recipients provided another \$14 million in matching funds for the total cost of over \$25 million in funding. The projects generate RNG which is sent to the newly inaugurated centralized conditioning facility for processing and injection into the utility common carrier natural gas pipeline. The methane greenhouse gas reductions achieved through these projects are estimated to be equivalent to removing 18,000 passenger vehicles from the roads each year for 10 years or providing electricity to 17,000 homes each year for 10 years.

Question 2. Last May, USDA announced a \$10 million initiative to quantify the climate benefits of CRP contracts. When we idle land in the U.S., it sends a market signal to U.S. competitors to plant more which can result in negative environmental outcomes. For example, in 2018, *Reuters* reported that as the world's largest soybean exporter, Brazil had plowed under more than half of the Cerrado, a vital storehouse for carbon dioxide.

Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Answer. USDA should take many factors into account when creating policy to reduce carbon emissions in agriculture, such as effective practices, cost/benefit analyses, and ecosystem responses.

Response from Joe L. Outlaw, Ph.D., Professor, Extension Economist, and Co-Director, Department of Agricultural Economics, Agricultural and Food Policy Center, Texas A&M University

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. Another area I feel strongly that our farmers and ranchers stand the opportunity to find benefit for their bottom line as well as their sustainability efforts are through bioenergy technologies that the 2018 Farm Bill helped pave the way for. One such technology that comes to mind is the use of anaerobic digesters to turn farm waste into valuable energy. While digesters have tremendous potential for producers and our greater national climate mitigation efforts, I often hear how hindered their adoption can be.

Would any of you care to touch on the barriers your organizations have seen to a more widespread adoption of digesters, and ways we could help foster increased access to this technology?

Answer. Anaerobic digester technology has been available for decades without widespread adoption. Roughly 25 years ago I conducted research over this topic and found two primary reasons for slow adoption. First, the initial cost of installing the digester is substantial and in the early years of digesters, the only way to recoup and this cost was to generate electricity and sell excess electricity back into the grid to reduce farm energy costs. At that time, there were states that did not allow net metering (allowing the meter to turn backward reducing farm energy costs) so truly many early digesters were just an additional cost with limited ability to have it pay for itself. While there have always been environmental benefits to methane capture, many producers did not see that as enough of an incentive to pay the cost when the majority in the industry were not doing it.

Over time, digester technology has evolved and programs such as those administered by the State of California have paid for the installation of the digester (even outside of California) with stipulations the resulting energy is shipped to California. Currently there are companies who will pay the installation costs for the farmer in exchange for control over the energy produced. Currently I have a masters student who is doing an economic analysis of the new approaches which should be completed early next year.

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Would this panel recommend that USDA take into consideration increased carbon emissions in competitor countries when policymakers idle productive land here at home?

Answer. I think first I would ask USDA to determine exactly where U.S. producers rank relative to our primary competitors in terms of emissions from agricultural production. Brazil has been using no-till technologies on a widespread basis for many years and could be considered by some to superior to the U.S. (if you ignore the initial burning of forests) when comparing emissions.

**A 2022 REVIEW OF THE FARM BILL
(HORTICULTURE AND URBAN AGRICULTURE)**

TUESDAY, MARCH 29, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON BIOTECHNOLOGY, HORTICULTURE, AND
RESEARCH,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Stacey E. Plaskett [Chair of the Subcommittee] presiding.

Members present: Representatives Plaskett, Delgado, Brown, Schrier, Panetta, Pingree, Carbajal, Rush, Baird, Davis, Bacon, Jacobs, Balderson, and Letlow.

Staff present: Lyron Blum-Evitts, Malikha Daniels, Martin Prescott III, Emily Pliscott, Ricki Schroeder, Patricia Straughn, Jennifer Tiller, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. STACEY E. PLASKETT, A
DELEGATE IN CONGRESS FROM VIRGIN ISLANDS**

The CHAIR. This hearing of the Subcommittee on Biotechnology, Horticulture, and Research entitled, *A 2022 Review of the Farm Bill: Horticulture and Urban Agriculture*, will come to order.

Welcome, and thank you for joining us for today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today. And this is my opening statement.

Good morning, and thank you to my colleagues and our witnesses for joining me today as we review the 2018 Farm Bill, Horticulture Title, and urban agriculture. This will be a two-panel hearing where we will hear from the USDA Under Secretary Moffitt and Natural Resources Conservation Service Chief Cosby on our first panel, followed by a second panel with industry stakeholders and producers.

The Horticulture Title of the farm bill covers programs that support the specialty crop industry, USDA-certified organic products—both crops and animals—hemp, local agricultural markets, and more. In my district of the U.S. Virgin Islands, farmers are mostly small and local producers. Many of these producers participate in

programs such as the USDA's local agriculture programs, among others, so today's topics are very important to me.

While other farm bill titles can benefit these sectors, today's conversation will focus on the Horticulture Title provisions and the specific provisions related to urban agriculture in the 2018 Farm Bill. Some of these provisions include the creation of the Local Agricultural Market Program to support the development, coordination, and expansion of domestic direct-to-consumer marketing, local and regional food markets, and value-added agricultural products and the establishment of an Office of Urban Agriculture and Innovative Production at USDA to provide urban ag producers resources to take advantage of USDA programs and initiatives and to promote urban, indoor, and other agricultural practices.

Other provisions in the 2018 Farm Bill also enhanced enforcement of organic products, limited programmatic fraud, developed new technologies, strengthened USDA organic certifications, and provided organic producers with accurate data collection to ensure that organic agriculture is part of the climate-smart agriculture solutions. Producers in these sectors have been able to leverage programs in the Horticulture Title to face the challenges posed by the COVID-19 pandemic.

As we move toward a greater sense of normalcy, we are invested in making sure producers in the industry have the necessary resources in this space and particularly when it comes to addressing the unprecedented supply chain disruption and challenges to market access many producers experienced during the pandemic. Today's hearing presents an important opportunity to conduct oversight into the programs from the 2018 Farm Bill and consider how we best support producers and stakeholders.

[The prepared statement of Ms. Plaskett follows:]

PREPARED STATEMENT OF HON. STACEY E. PLASKETT, A DELEGATE IN CONGRESS
FROM VIRGIN ISLANDS

Good morning, and thank you to my colleagues and our witnesses for joining me today as we review the 2018 Farm Bill Horticulture Title and Urban Agriculture. This will be a two-panel hearing where we will hear from USDA Under Secretary Moffitt and Natural Resources Conservation Service (NRCS) Chief Cosby on our first panel, followed by a second panel with industry stakeholders and producers.

The Horticulture Title of the farm bill covers programs that support the specialty crop industry, USDA-certified organic products (crops and animals), hemp, local agricultural markets, and more. In my district of the U.S. Virgin Islands, farmers are mostly small and local producers. Many of these producers participate in programs such as USDA's local agriculture programs, among others, so today's topics are very important to me.

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Producers in these sectors have also been able to leverage programs in the Horticulture Title to face the challenges posed by the COVID-19 pandemic. As we move toward a greater sense of normalcy, we are invested in making sure producers and the industry have the necessary resources in this space, particularly when it comes to addressing the unprecedented supply-chain disruptions and challenges to market access many producers experienced during the pandemic.

Today's hearing presents an important opportunity to conduct oversight into programs from the 2018 Farm Bill and consider how we should best support producers and stakeholders.

The CHAIR. I would now like to welcome the distinguished Ranking Member, the gentleman from Indiana, Mr. Baird, for any opening remarks he would like to give.

**OPENING STATEMENT OF HON. JAMES R. BAIRD, A
REPRESENTATIVE IN CONGRESS FROM INDIANA**

Mr. BAIRD. Thank you, Madam Chair. I appreciate everyone being here and appreciate all the Committee having the opportunity to have this kind of hearing.

I think this hearing marks an important step as this is our first hearing to review the Horticulture Title of the 2018 Farm Bill. So as we prepare for the next farm bill, it is important to hear from both USDA and stakeholders to learn what is working and what is not. The Horticulture Title is broad and it covers a variety of issues, including specialty crop, invasive species, plant health, crop protection tools, local agriculture markets, food safety, and hemp.

While today's hearing lends itself to provisions in title X, it is important to note there are provisions in other titles of the farm bill that impact the horticultural industry. I look forward to future oversight of these other provisions.

The specialty crop industry is very diverse and includes fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops. The sheer diversity and unique set of challenges for this industry can make the development of specialty crop policies difficult. However, one program that has proven to be effective is the Specialty Crop Block Grant Program. This program was first funded in 2006 and provides State Departments of Agriculture funds to award promotion and marketing grants aimed at improving the competitiveness of specialty crops in the United States. I believe that one reason this program is so successful is because it allows states to fund projects that are unique to their specialty crop industries.

Another important program authorized in the Horticulture Title is the Plant Pest and Disease Management and Disaster Prevention Program, which works to strengthen, prevent, detect, and mitigate invasive species. As we all know too well, invasive species can have a significant impact on the agricultural industry. Both USDA and State Departments of Agriculture play a critical role in controlling the spread and eventually eradicating these invasive species. I am pleased that my colleagues found it necessary to maintain the significant advances made in 2014 for this program, and I look forward to learning how we can further improve this program to prevent the spread of invasive species.

Another important provision I am excited to hear more about today is the creation of the FIFRA Interagency Working Group in the 2018 Farm Bill. This working group, consisting of USDA, EPA,

Department of the Interior, the Department of Commerce, and the Council of Environmental Quality is designed to help improve the consultation process required under the Endangered Species Act for pesticide registration and registration review. I am all too familiar with just how cumbersome this interagency cooperation can be, especially in regard to the ESA. It is important that producers have continued access to these critical tools to protect their crops from damaging insects and weeds.

The past three farm bills have shown significant progress in the Horticulture Title. However, as much has changed in the world since 2018, I am eager to hear more about the impacts and challenges of these programs and suggested ways we can improve the delivery. I thank Under Secretary Moffitt and Chief Cosby and all the other witnesses for taking the time to be here with us today. Your insight and expertise and service to agriculture are greatly appreciated, and I am looking forward to having a robust conversation about programs within the Horticulture Title today.

And with that, Madam Chair, I yield back.

The CHAIR. Thank you to my Ranking Member.

I want to thank our witnesses who are with us today. We have two panels. Our first panel I am pleased to welcome two distinguished individuals. Our first witness is Ms. Jenny Lester Moffitt, who serves as the Under Secretary of Marketing and Regulatory Programs at the United States Department of Agriculture.

Our second witness for the first panel is Mr. Terry Cosby, who is the Chief of the Natural Resources Conservation Service. Welcome you both today. We will now proceed to hearing your testimony. All other Members are requested to submit their opening statements for the record so that the witnesses may begin their testimony and to ensure there is ample time for questions. Each of our witnesses will have 5 minutes. The timer should be visible to you, and that timer will count down to zero, at which point your time will have expired.

Under Secretary Moffitt, thank you so much for joining us and please begin when you are ready.

STATEMENT OF HON. JENNIFER LESTER MOFFITT, UNDER SECRETARY FOR MARKETING AND REGULATORY PROGRAMS, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Ms. MOFFITT. Thank you, Chair Plaskett, Ranking Member Baird, and Members of the Committee. Thank you so much for the opportunity to be before you today to share the work of the United States Department of Agriculture's efforts to build more and better markets for American agriculture.

In my role at USDA, I have had the honor of meeting people around the nation who are building innovative partnerships to solve problems in their communities. Earlier this month, I visited Atlanta. Seven years ago, the public transit authority there, MARTA, partnered with farmers and organizations to open fresh markets at transit stations located in neighborhoods with limited food access. In 2018, the program received funding through the Local Food Promotion Program funded through the farm bill to expand their reach. When I visited, I saw the impact firsthand of peo-

ple having access to fresh, healthy produce. The program shows just how important partnerships are to addressing local and regional food needs. And it demonstrates one of the core values of our goals at USDA, to create more and better markets for farmers and consumers, not from the top down, but from the bottom up and the middle out. This is the power of the farm bill. And the authorities in funding provided in it by Congress are helping us strengthen and build a more resilient food system in communities across the country in a variety of ways because there is no one-size-fits-all solution to approaching the challenges faced by producers and consumers.

As I travel the country, I hear repeatedly how important the Local Agriculture Marketing Program is to farmers and to communities. That is why we dedicated \$130 million from the American Rescue Plan Act (Pub. L. 117-2) to expand and strengthen opportunities for farmers to sell to institutions such as universities, hospitals, and settings operated by local, Tribal, and state governments through the LAMP Program. And that is why we have also dedicated \$600 million to creating new programs to build partnerships that improve local food procurement opportunities and marketing channels while providing nutritious food to food banks, pantries, and schools.

Partnerships are critical to building more and better markets. Just look at organic agriculture. The public-private partnership that drives the Certified Organic Program is thriving. Between 2019 and 2020 organic retail sales increased 13 percent. We will continue to protect the organic seal, supporting aspiring farmers, and strengthen the organic program.

So that is why I am pleased today to announce that the review of the Origin of Livestock final rule is complete, and details will be made later today. I know many Members of this Committee have worked for a long time on this rule, and we are thankful for your leadership. This rule will give organic producers more opportunities to compete fairly in the market by establishing clear standards that ensure more consistent production and certification practices. At the same time, we need to support farmers transitioning to organic to provide increased opportunities for mentorship. With partnership in mind, we are developing this initiative as Secretary Vilsack announced last summer to invest at least \$200 million to support farmers transitioning to organic.

Partnership also drives us as we look forward into the future. In partnership with State Departments of Agriculture, we awarded \$170 million last year in the Specialty Crop Block Grants to fund the growing need for critical research, marketing, and education programs for specialty crops. And this year we have another \$73 million available to support more of this work. We have also partnered with 45 states and 48 separate Tribes to approve plants for hemp production, creating new income streams and supporting broader rural prosperity.

And, as we enhance markets to build new ones, we will continue to create partnerships with technical assistance providers so that farmers and ranchers, especially those who have been historically underserved, have support navigating our programs because having the programs is not enough. We must also ensure access.

In addition, we continue the relationships with trade partners around the world as we grow international markets for American agriculture. Trade is an essential economic driver in many rural communities and supports more than 1.3 million American jobs.

I would be remiss if I did not recognize the dedicated staff at USDA, at the Agricultural Marketing Service, and at the Animal and Plant Health Inspection Service who work hard to strengthen American agriculture. In fact, APHIS is celebrating its 50th anniversary this weekend, and their work ensuring animal and plant health has helped build better markets for both domestic and international trade partners abroad.

Thank you again for the opportunity to be here today and for your leadership. I look forward to working collaboratively with Members of this Committee and Congress as you work to draft the 2023 Farm Bill and continue to champion American agriculture. I am happy to address any questions you have. Thank you.

[The prepared statement of Ms. Moffitt follows:]

PREPARED STATEMENT OF HON. JENNIFER LESTER MOFFITT, UNDER SECRETARY FOR MARKETING AND REGULATORY PROGRAMS, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

[Chair] Plaskett, Ranking Member Baird, and Members of the Subcommittee, thank you for the opportunity to appear before you today to share the U.S. Department of Agriculture's (USDA) efforts to build more and better markets for producers and consumers, including through the implementation of the Horticulture Title of the Agriculture Improvement Act of 2018 (2018 Farm Bill).

It is an honor to serve the American people as the Under Secretary for Marketing and Regulatory Programs and to be with you here today. My mission in this job is simple. It's to be the best advocate I can be for the farmers, ranchers, producers, consumers, and communities we serve.

My roots are in agriculture. I grew up on a farm in a rural area where I saw firsthand how important farmers, ranchers, and producers are to their communities and to our country. I know, and you know, how hard they work and the challenges they face every single day to provide the food, fiber, and fauna that shape so many aspects of our economy and way of life.

During the pandemic, we saw just how hard individuals in roles across all links in the food supply chain worked to feed Americans and just how many challenges they faced. We saw the last few years highlight long-term systemic challenges, even as we also saw the food system adapt, innovate, and persevere.

Now we as a country have a unique chance to learn from the lessons of the last few years and move beyond them to build upon that adaptation and innovation to support a food system that's stronger, more resilient, and more equitable than before. Our ability to feed ourselves is a matter of national security, nutrition security, and economic security. As President Biden has said, we have the opportunity to build the economy not from the top down, but from the bottom up and the middle out. This work provides a direct opportunity to invest in rural communities in ways that will support prosperity for generations to come.

That's why USDA is committed to addressing those challenges by building more and better local, regional, national, and international markets for producers and consumers while ensuring animal and plant health. I'm excited to share more details on that work with you today, and to work with the Committee and Congress as you draft the next farm bill.

Local Agriculture Market Program

There is no one size fits all to fix to these challenges. Success is going to take new partnerships, new innovations, and new ways of thinking and a recognition that solutions are likely to vary place to place. Thanks to Congress, we already have some strong tools in our toolbox, including the Local Agriculture Market Program (LAMP) that I would like to highlight first today.

Just last month, I visited an innovative collaboration in Georgia. Now, Georgia is a state with a lot of fruit and vegetable production, but in bustling Atlanta, access to these local healthy fruits and vegetables has been limited in certain communities. The Metropolitan Atlanta Rapid Transit Authority (MARTA) came together with or-

ganizations including Community Farmers Markets, Atlanta Community Food Bank, Open Hand, and Wholesome Wave Georgia to start fresh markets at five transit stations. These markets accept cash, credit, debit, and Supplemental Nutrition Assistance Program (SNAP) Electronic Benefit Transfer cards. SNAP benefits are doubled at the market through the Double Up Food Bucks program. This work, now in its seventh year, was boosted with a USDA Local Food Promotion Program grant funded by the 2018 Farm Bill, which is a part of the larger LAMP authorization. I truly loved seeing how this innovative partnership transformed food and nutrition insecure communities into opportunities both for the people living there and the farmers who grow produce in the state.

The Local Food Promotion Program that supported the MARTA project is part of LAMP, which was established in the 2018 Farm Bill, with Congress providing \$50 million a Fiscal Year in mandatory funding starting in FY19. Congress has also provided discretionary appropriations for some of the programs that are a part of LAMP and in 2021 a supplemental appropriation of \$100 million was provided for LAMP through the Consolidated Appropriations Act of 2021. USDA's LAMP grant programs also consist of the Farmers Market Promotion Program and the Regional Food Systems Partnerships at Agricultural Marketing Services (AMS) and the Value-Added Producer Grants run through USDA's Rural Development.

As I have traveled the country, I have heard repeatedly how AMS's LAMP grants have been a catalyst to support and energize local and regional food systems. It's timely that we highlight these programs today since March is National Nutrition Month. So many of the recipients I've met with are making a real difference when it comes to nutrition security of their communities while also building more and better markets for producers.

In Massachusetts, for example, I visited a farm that had received funding resulting from a Farmers['] Market Promotion Program grant to the Southeastern Massachusetts Agricultural Partnership. With these funds, the farm is constructing a new farmstand to help build and expand their local markets, particularly focused on growing their customer base to include those using SNAP benefits to ensure that everyone, regardless of income level has access to healthy, fresh food and are able to support their local farmers.

In California, I had the opportunity to meet with Maria, a farmer from just outside Salinas, and hear her story and her struggles as a farmer who hasn't had the same access to programs and markets due to language barriers, size barriers, and production barriers. Thanks to a Farmers['] Market Promotion Program grant and a Local Food Promotion Program grant received by a local organization, the Community Alliance with Family Farmers, she was able to access in-language support and build market connections including with institutional, food bank, and pantry partners.

Supporting farm to institution growth is a real under tapped opportunity for many local food systems. That is why we have dedicated \$130 million in supplemental American Rescue Plan (ARP) Act funding to promote competition and create more and better markets for local and regional food producers by expanding and strengthening opportunities to sell to institutions, such as universities, hospitals, and settings operated by local, tribal, and state governments. The supplemental ARP funding USDA has dedicated to this farm to institution work is divided into \$65 million for Fiscal Years 2022 and 2023 each.

Local Food Purchase Assistance Cooperative Agreement Program and the Local Food for Schools Cooperative Agreement Program

I'd be remiss if I didn't mention that we are also currently seeking applications from states, Territories, and Tribes for the Local Food Purchase Assistance Cooperative Agreement Program and the Local Food for Schools Cooperative Agreement Program. As the LAMP programs work to build capacity for producers to access new markets, these two programs are designed to build and engage local procurement marketing channels while providing nutritious food for food banks, pantries, and schools.

Through both of these programs, we are working with states, Territories, and Tribes to assist them in building their own unique and flexible plans to purchase and distribute domestic foods from local, regional, small, and underserved farmers and ranchers for use in nutrition programs, building the necessary infrastructure for local and regional procurement along the way.

These programs demonstrate the incredible power and opportunity of partnerships and how they strengthen American agriculture by building new markets and enhancing existing markets for producers of all backgrounds, scale, and scope, as well as how they can work to build a more resilient local and regional food system.

These efforts put rural prosperity front and center, supporting a circular economy where the value added to food happens and stays locally. With these programs both the investment in the food purchased, as well as the food delivered, stays in the broader community, supporting longer term economic growth.

Organic Production

Our work at USDA building more and better market opportunities for producers is also evident in our work on organic markets. Organic agriculture provides a climate-smart option, and ever-changing consumer tastes call for a variety of products and production methods. Nowhere else is that clearer than in certified organic production where consumer demand continues to climb.

At the start of 2022, there were 28,403 certified organic businesses in the United States. U.S. organic retail sales totaled a record \$61.9 billion in 2020, up approximately 13 percent from 2019. Since being confirmed, I've met with current and aspiring organic farmers where I heard about the importance of consistent national standards as well as the need to keep supporting and educating certifiers, and the need to provide wraparound support for transitioning farmers. As someone who grew up on and later managed an organic farm myself, I understand how important this is.

When my dad decided to convert to organic production in the 1980's, I watched him reach out to fellow growers to seek mentorship, guidance, and to get their hands-on expertise on issues like production practices and certification. He was fortunate because we had folks he knew, but not everyone who wants to get into organic agriculture has that same access and support. Those connections are crucial to new and beginning farmer success.

Of course after farmers have transitioned to certified organic production, there also must be a supply chain and markets ready to support organic production. I know many Members of this Committee paid close attention to market disruptions in organic dairy production last year, particularly in the Northeast. This has underscored the broader need to build long-term resilience of regional dairy supply chains and is why USDA announced that we are investing \$80 million in American Rescue Plan Act funding, split between the four existing Dairy Business Innovation Initiatives, to further support processing capacity expansion, on-farm improvements, and technical assistance to dairy producers, including those focused on organic markets.

The Organic brand, supported by robust national standards, is well-recognized and trusted by many consumers. To protect this important brand and ensure consistent standards for our producers, we are working on several rules.

First, we are moving forward with the Origin of Livestock and Organic Livestock and Poultry Practices rules to set how dairy cattle can be transitioned into organic production and clarify the USDA organic standards for these industries, including around production, transport, and slaughter. Both rules are currently under review and I know U.S. organic producers are eager to see them enacted soon.

We are also working to finalize the Strengthening Organic Enforcement rule-making, which will implement the farm bill's Title X provisions to significantly update organic standards to respond to industry growth and the growing complexity of organic supply chains. The rule will also incorporate many recommendations from the National Organic Standards Board to strengthen the integrity of the USDA organic seal. The final rule will be submitted to the White House Office of Management and Budget in the coming months.

Enforcement is a critical component of our organic standards so that consumers have confidence in the brand. Our work to establish the "Organic Agricultural Product Imports Interagency Working Group," as set forth in the 2018 Farm Bill enables USDA and Customs and Border Protection (CBP) to advance joint work on organic import oversight, organic enforcement, and data sharing. This working group meets regularly, with the following key successes:

- facilitating trademark protection of the USDA organic seal;
- facilitating data access to CBP systems;
- enabling AMS staff positioning in the CBP Commercial Targeting and Analysis Center (CTAC);
- supporting inter-agency collaborative efforts to build the NOP electronic organic import certificate; and
- providing essential feedback for the Strengthening Organic Enforcement rule.

This collaboration with CBP also extends to our electronic organic import certificate in CBP's import system (called the Automated Commercial Environment—ACE). This system is designed to modernize existing international organic trade tracking and data collection systems. The organic import certificate was launched

in Spring 2020 and is now being used on an optional basis by organic importers. Certifiers, who generate the import certificate, do not have access to the CBP system, so next, AMS conducted a pilot test and desktop exercises to identify requirements for a fully electronic workflow that will generate and validate certificates outside the CBP system. This technology, which will expand the existing Organic Integrity Database, is now being developed and will be launched concurrently with the implementation of the Strengthening Organic Final Rule. The outcome will be effective oversight of organic imports without slowing legitimate and vital trade.

Hemp

Part of building new markets includes opening the door to new crops to create income streams in support of broader rural prosperity. The 2018 Farm Bill directed USDA to establish a national regulatory framework for hemp production in the United States. USDA published a final rule on January 19, 2021, that provided regulations for the production of hemp in the United States, which became effective on March 22, 2021.

To foster public awareness and input during the regulation-drafting stage, USDA conducted a webinar that hosted more than 4,100 registrants from around the country, engaged with Native American Tribal representatives on multiple occasions, maintained ongoing interaction with multiple internal and external government agencies with related responsibilities, and engaged with global companies with interest in U.S. hemp production. USDA had held hundreds of meetings with industry stakeholders and other Federal partners.

USDA worked diligently to quickly review and approve state hemp plans before the December 31, 2021, statutory deadline. Forty-five states are now operating under USDA approved plans. USDA administers the hemp programs in New Hampshire, Mississippi, Hawaii, North Carolina, and Wisconsin. We continue to work very closely with Tribes to develop their hemp programs and have approved programs for 48 separate Tribes.

Throughout 2020 and 2021, the hemp program developed the Hemp Electronic Management Platform (HeMP) which collects licensing, mapping, testing, disposal, and remediation data from all U.S. hemp producers for sharing with law enforcement as required under the 2018 Farm Bill. The program continues to conduct extensive and critical stakeholder outreach for USDA producers, states, Tribes, laboratories, and law enforcement.

Specialty Crop Block Grants

As we work to enhance markets into the future, the need for research, innovation, education, and marketing only grows. In my previous role at the California Department of Food and Agriculture, I know first-hand how important the Specialty Crop Block Grant Program (SCBGP)—authorized and funded through the farm bill—is to the states as they partner with the specialty crop industries to fund critical research, marketing, and education programs that best meet the needs in their states. In California, we funded pest and production research which included key climate-smart agriculture priorities as well as non-research projects, such as, education programs for beginning farmers and marketing programs.

Section 101 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. 1621) authorized USDA to provide state assistance for specialty crops, and the 2018 Farm Bill funded the SCBGP through 2023. USDA administers this program by awarding grants to State Departments of Agriculture to enhance the competitiveness of fruits and vegetables, tree nuts, nursery crops.

Last year, USDA announced \$170 million in grants, which was made possible thanks to \$73 million from the 2018 Farm Bill and an additional \$97 million that Congress provided through the Consolidated Appropriations Act of 2021. Then on January 25, 2022, USDA announced \$72.9 million in available funding for 2022.

This past January, I was able to travel to Washington State to see these grants in action as they support important production research and innovation, as well as market development for apple, pear, and cherry growers in the Pacific Northwest. From research to education to marketing, the program is supporting specialty crops to be more competitive and resilient.

In an effort to further quantify and demonstrate the impact of this program, AMS established standardized national outcome measures to demonstrate the program's performance toward fulfilling its statutory purpose; review annual performance reports, final reports, audit results, and final financial statements; posts final performance reports on the SCBGP website; and disseminate project findings at appropriate meetings and conferences. These updated performance measures for the Specialty Crop Block Grant Program, the Farmers['] Market and Local Food Promotion Program, the Acer Access and Development Program, and the Dairy Business Inno-

vation Initiatives will not only lead to greater transparency but allow us to disseminate valuable information about the programs. Specifically, for the SCBGP the new standardized national outcome measures will allow for a complete evaluation of the increases in consumption and consumer purchasing of specialty crops, access to specialty crops, food safety knowledge, pest and disease control processes, development of new seed varieties, expanded research, and improved environmental sustainability. The updates, which were announced last July,¹ will apply to the Fiscal Year 2022 grant cycle and beyond.

International Markets and Other Activities

As part of our push for more and better markets, we are also looking to increase the markets outside of the country for American growers. As many farmers and ranchers will tell you, and as many of you know well, trade is essential and is an important economic driver in many rural communities. The United States exported a record \$172.2 billion in farm and food products in FY21, up 23 percent from FY20. Producers, processors, exporters, and rural communities have all benefited, with each \$1 billion in U.S. agricultural exports stimulating another \$1.14 billion in domestic economic activity and supporting more than 7,700 full-time civilian jobs. That means exports support more than 1.3 million American jobs, not just on the farm but also in related industries such as food processing and transportation.

Part of enabling this trade success is by ensuring animal and plant health for products coming into the U.S. and those that we are sending to other countries. This means doing all we can to keep foreign pests and diseases out of the country so that our producers can ship their products all around the U.S. and to overseas trading partners who can trust that our products meet their standards. Our Animal and Plant Health Inspection Service (APHIS)—and its valuable employees—strives every day to protect the health and value of American agriculture. In just a few days, on April 2, APHIS will be celebrating its 50th anniversary.

These unsung heroes at APHIS have, for fifty years, kept harmful pests and diseases out and helped to maintain and expand access for healthy agricultural products.

Most of America might not see their work on a day-to-day basis, but they benefit from their impact constantly. I know that I did when I worked on my family's organic farm and when I served at the California Department of Food and Agriculture. As we approach this important anniversary, we should all take a moment to appreciate what the agency has accomplished and how critical its people have been to its success. APHIS, through the hard work of its employees, has provided incalculable value to American agriculture and will continue to ensure that U.S. farmers and ranchers have access to more markets for their healthy products for the next fifty years. I would also like to thank this Committee and Congress for the additional support that was provided to APHIS through the American Rescue Plan to conduct much needed monitoring and surveillance of susceptible animals for SARS-CoV-2 that is supported by our One Health collaboration. Although not the subject of today's hearing, it is another critical part of APHIS' work to prevent, detect, report, and respond to all potential emerging threats to American agriculture, be it plants or animals, and human health.

Outreach and Equity

I want to note, that even as we roll out these incredibly impactful programs, we are doing a disservice if they are not accessible to all. From running my family farm, I experienced firsthand how difficult it can be to maneuver through all the pieces needed to apply for a grant or loan from USDA. Farmers and ranchers don't have extra hours in their day to navigate all the layers of application processes on their own. Having readily available technical assistance to help our farmers and ranchers access all of these programs is just as important as having these programs in place.

For communities that have been historically underserved by the Department, the need for wraparound technical assistance is even greater. That's part of why I'm so proud of the technical assistance work USDA is doing, like the newly announced effort for meat and poultry processors that includes partnerships with the Flower Hill Institute and Intertribal Agriculture Council. These efforts are only the start and I look forward to building on this work in the months and years to come.

Conclusion

Thank you again for the opportunity to be here today and for your leadership in support of American agriculture and your trust in USDA. USDA is committed to

¹<https://www.ams.usda.gov/services/grants/performance-measures>.

working on behalf of the American people to foster more and better markets while we also support climate smart agriculture and forestry, address nutrition and food insecurity, build rural prosperity with a more circular economy, and ensure equity and inclusion in all that we do. I look forward to working with each of you to advance these shared goals through the 2023 Farm Bill.

Working with Congress, I believe we can—and must—continue to support and strengthen markets for American agriculture. Together, we have an opportunity to enhance existing markets, build new markets, and ensure fair markets to enhance rural prosperity, reduce nutrition insecurity, and combat climate change so that American agriculture is even stronger than it is today.

I look forward to working collaboratively with Members of the Committee and Congress as you work to draft the 2023 Farm Bill and continue to champion American agriculture. I would be happy to address any questions you may have.

The CHAIR. Thank you very much, Under Secretary.

Chief Cosby, please begin when you are ready. Thank you, Madam Under Secretary, for your testimony.

STATEMENT OF TERRY COSBY, CHIEF, NATURAL RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. COSBY. Thank you. Chair Plaskett, Ranking Member Baird, and Members of the Subcommittee, thank you for the opportunity to appear before you today to discuss USDA support for urban agriculture. My name is Terry Cosby. I am the Chief of the Natural Resources Conservation Service. Prior to becoming Chief, I was a State Conservationist in Ohio during the launch of the Cleveland High Tunnel Initiative; I have seen firsthand the many benefits of urban agriculture for the communities. I have seen youth inspired to agriculture careers when they are otherwise drifting. I have seen people develop businesses that either supplement other jobs or provide a primary source of income. I have seen people's health improve and communities come together.

I greatly appreciate the Subcommittee's invitation, and I look forward to the conversation today.

The USDA Office of Urban Agriculture and Innovative Production, which I will refer to today as the Office, is housed within the NRCS, but our work is supported by and coordinated across the Department. The Office works collaboratively with other USDA agencies to support urban producers. We established an internal advisory committee with members from over 20 USDA agencies to guide and contribute to USDA urban agriculture efforts. The 2018 Farm Bill authorized \$25 million a year—

The CHAIR. Excuse me, Chief Cosby. I am so sorry to interrupt you, but to the Committee staff, the timer is not visible, thank you.

Chief Cosby, you got some extra time there if you would like to start again.

Mr. COSBY. Thank you for that. The 2018 Farm Bill authorized \$25 million a year for the Office. In Fiscal Year 2020 Congress provided \$5 million; in Fiscal Year 2021 \$7 million; and in Fiscal Year 2022, \$8.5 million.

Feedback and engagement from urban producers and stakeholders across the country will be critical for USDA work to support urban agriculture in communities. The inaugural meeting of the Federal Advisory Committee for Urban Agriculture and Innovative Production was held virtually on March 23rd and 24th. Fourteen hundred and thirty people registered to attend, and 184 reg-

istered to provide comments during the public forum. I am happy to provide further details about what we learned during the Q&A. The Committee and the public feedback will guide future priorities for the Office. As a public meeting, it was recorded and will be made available through our *Farmers.gov* urban website.

USDA offers several targeted opportunities for urban communities and projects. Our Urban Agriculture and Innovative Production Competitive Grant Program supports projects that promote community gardens and nonprofit farms, provide job training and education, and develop business plans and zoning for urban agriculture with priorities given to communities lacking access to fresh and healthy foods. Since the Office started, this program has funded 31 awards totaling just over \$7.9 million. Additionally, our Cooperative Agreement Pilot Program funds local government projects to develop and test strategies to increase compost and reduce food waste. Since the Office started, this program has funded 37 awards totaling just over \$3 million. This spring we will announce the opening of two funding opportunities.

The Office has collaborated with the Farm Service Agency to establish 11 pilot urban county committees, which will provide feedback on how USDA can support urban agriculture in our local areas. To demonstrate USDA's commitment to urban agriculture, FSA and NRCS are establishing brick-and-mortar urban service centers, as well as mobile presence in each city selected for the urban county committees. These service centers will connect urban producers to USDA programs and services developed in urban areas, including the local and regional market initiative that Under Secretary Moffitt discussed earlier. USDA will engage trusted community-based organizations in each city to build trust and to raise awareness of USDA services available and support urban producers through the sign-up process.

Importantly, our efforts are not limited to these cities. NRCS and FSA are ensuring that in all states field offices are trained to support urban producers. The Office is updating an urban agriculture toolkit to help producers and employees easily find all USDA programs supporting urban agriculture. We are also preparing training on how to work with urban customers for employees across USDA. At NRCS, we are reviewing guidance and technical documents, practice standards, and payment rates to remove barriers to serving urban producers and ensure payment rates are reflective of costs of producing food in urban locations.

High and low tunnel standards have been adjusted so health, stormwater runoff, water conservation and pollinator habitats are currently under review. We are working to support urban producers in transition through the environmental EQIP Program and our Conservation Stewardship Program.

In conclusion, USDA is committed to supporting urban agriculture and believe it plays an important role in addressing food insecurities, climate change, and inequity. However, we note that there is more work to be done. I want to thank you again for the opportunity to appear before the Subcommittee to provide an update on USDA's urban agriculture efforts, and I look forward to the questions.

[The prepared statement of Mr. Cosby follows:]

PREPARED STATEMENT OF TERRY COSBY, CHIEF, NATURAL RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Introduction

[Chair] Plaskett, Ranking Member Baird, and Members of the Subcommittee, thank you for the opportunity to appear before you today to discuss USDA's work to advance and expand support for urban agriculture. USDA's Office of Urban Agriculture and Innovative Production (the Office or OUAIP) is housed within the Natural Resources Conservation Services (NRCS), but NRCS works collaboratively across the Department to implement our responsibilities as a collaborative effort with the many USDA agencies and offices that have missions and programs that support urban producers and innovative production.

The overview of the Office's accomplishments and plans that I will share with you today provides only a high-level lens into the actions we are taking. The benefits are realized by the individuals who receive service, perhaps for the first time, that enable them to begin, expand, or enhance food production in their local community. Through the work of this Office and of urban agriculture efforts across the Department, USDA strives to uplift communities that have been previously overlooked and lacked access to many USDA resources. I know first-hand from my experiences in Cleveland, Ohio, that promoting urban agriculture can inspire youth to go to college to specialize in agricultural fields; create opportunities for entrepreneurs to start up small businesses and create jobs; provide fresh, healthy foods to communities in need; and improve the quality of life for all residents by reclaiming abandoned open spaces.

The Office coordinates urban agriculture efforts across USDA through an internal advisory committee. The internal advisory committee allows employees from all USDA agencies to engage directly on matters important to urban agriculture and innovative production and to guide the work of the Office. Members work collaboratively on outreach products, training efforts, funding announcements, project selections, metrics to measure success, and supported the selection of the new director for the Office of Urban Agriculture and Innovative Production. The Office also holds regular discussion with other Federal agencies, like Housing and Urban Development and the Environmental Protection Agency, to discuss opportunities for collaboration.

Funding

The 2018 Farm Bill included an authorization of an appropriations for each of Fiscal Years (FY) 2019 through 2023 of \$25 million a year to carry out the responsibilities of the Office and the Urban Agriculture and Innovative Production Advisory Committee. In FY20 Congress provided an appropriation of \$5 million for this work, then \$7 million in FY21, and \$8.5 million in FY22. Last year, approximately 90% of the Office's appropriated funding went directly to the public via the Office's two funding opportunities: Urban Agriculture and Innovative Production (UAIP) competitive grants, which expand opportunities for urban and innovative production in areas lacking access to fresh healthy food, and Composting and Food Waste Reduction (CFWR) cooperative agreements, which funds local governments pilot projects to promote composting and food waste reduction.

USDA has also used appropriated funds to support the establishment of the Urban Agriculture and Innovative Production Federal Advisory Committee and the pilot Urban County Committees that are being established through the Farm Service Agency's County Committee authorities. In addition, the Office is developing outreach materials to help local producers and local staff better understand USDA programs that can assist urban and innovative producers, and we are also developing internal training for USDA staff to prepare them to work with these new producers.

Federal Advisory Committee

The inaugural meeting of the Federal Advisory Committee recently took place with a virtual meeting on March 23rd and 24th. We introduced the new committee members to the public and provided the public an opportunity to provide feedback to the committee. This public feedback will be instrumental in shaping USDA's continued investment and support for urban agriculture. In all we had 1,240 persons register to attend the session and 132 registered to provide feedback to the committee during the public forum. This public feedback, in addition to the experiences of the committee members, will help form USDA's future priorities for the Office.

Urban County Committees

For nearly 100 years, county committees have provided a direct link between the farm community and USDA, allowing grassroots input and local administration of USDA programs. Each year, the Farm Service Agency (FSA) holds elections where

local farmers can run for, or vote for, county committee membership. County committee members have a say in what kinds of FSA programs their county will offer, ensuring local FSA agricultural programs serve the unique needs of local producers. As of March 7th, the Office and FSA have established 11 Urban County Committees (UCOC) in Albuquerque, NM; Atlanta, GA; Cleveland, OH; Dallas, TX; Minneapolis-St. Paul, MN; New Orleans, LA; Philadelphia, PA; Phoenix, AZ; Portland, OR; Richmond, VA; and St. Louis, MO.

These UCOCs will focus exclusively on urban production and will provide feedback on how USDA programs can encourage and promote urban, indoor, and other emerging agricultural production practices in the local area. Additionally, UCOCs may address issues such as food access, community engagement, support of local activities to promote and encourage community compost and food waste reduction.

The UCOC locations were selected based on a number of factors, including levels of economic distress, diversity, proximity to Tribal nations, the number of students receiving free or reduced-price school lunch, as well the number of farm-to-table projects, urban farms, community and residential gardens, and green infrastructure projects within metropolitan and suburban areas.

Urban Service Centers

To demonstrate USDA's commitment to serving urban and innovative producers, FSA and NRCS have jointly committed to opening brick and mortar urban service centers and having a mobile presence in each city selected for the pilot program. FSA and NRCS are working with local stakeholders and local USDA staff to identify locations for service centers within each city that will be accessible and welcoming to local urban and innovative producers. These urban service centers will offer urban and innovative producers the full suite of applicable USDA programs and services, including farm loans and conservation program assistance, as well as serving as a way to connect urban and innovative producers to the local and regional market initiatives that Under Secretary Moffitt discussed earlier. FSA and NRCS anticipate having staff on the ground in all locations serving urban and innovative producers in the fall of 2022.

While our teams will be working to build out physical urban service centers in the identified cities, we are working with all of our states to ensure that field staff are trained and committed to reaching out to and serving urban producers and communities and connecting them to local and regional market opportunities. This continued effort will include training and additional resources to ensure that urban outreach and service is available and expanded in every state across the country.

Community-Based Organizations

To support the launch of these urban service centers, FSA and NRCS are developing a strategy to engage trusted community-based organizations (CBOs) in each location to conduct outreach and raise awareness of USDA services available to urban producers. CBOs will be critical for building trust to ensure that local urban and innovative producers feel comfortable providing the personal information required to enroll in USDA programs. The arrangements with CBOs in each city will be modeled on the role of the Federation of Southern Cooperatives in the Cleveland High Tunnel Initiative. In Cleveland, the Federation of Southern Cooperatives encouraged local youth to become trained to install NRCS hoop houses, leading to a group of local high school students forming a business installing hoop houses. This provided enough income to allow some of these young people to attend college, which they otherwise could not afford. Similar community engagement and job training opportunities will be a priority for CBOs engaged to work in each city getting an urban service center.

Competitive Grants—Implementation and Planning Projects

The Urban Agriculture and Innovative Production (UAIP) competitive grants program supports a wide range of activities through two types of grant types—Planning and Implementation. Eligible activities include operating community gardens and nonprofit farms, increasing food production and access in economically distressed communities, providing job training and education, and developing business plans and zoning. Priority was given to projects with positive impact in areas with limited access to [healthy] affordable food as listed in the USDA Food Access Research Atlas. In FY20 and FY21, NRCS made 31 awards totaling just over \$7.9 million to recipients across the country.

Cooperative Agreements—Community Compost and Food Waste Reduction (CFWR) Pilot

In FY20 and FY21, NRCS made 37 awards totaling just over \$3 million to local governments to develop and test strategies for planning and implementing munic-

ipal compost plans and food waste reduction efforts. Priority was given to projects that anticipate or demonstrate economic benefits, incorporate plans to make compost easily accessible to farmers, including community gardeners, integrate other food waste strategies, including food recovery efforts, and collaborate with multiple partners.

We will continue to build on these investments and hope to soon announce the availability of UAIP competitive grants and CFWR cooperative agreements for FY22, totaling approximately \$6 million in available funds.

Outreach Activities

Although each individual USDA agency is working to conduct outreach for their programs that are available to urban producers, the Office is collaborating with our USDA agencies to create an outreach toolkit, which will be an efficient mechanism for customers and stakeholders to identify resources and services available across USDA. We anticipate it will be released later this year after we ensure it is well-vetted. Our goal is for this to be a product that builds over time as we learn more of what the urban and innovative customers need. In addition, we are working to expand our presence on social media to ensure we reach communities that are not connected to our traditional outreach efforts. The UCOC, described above, will also be helpful in amplifying services available to their communities. This Office is working to provide training across USDA as well as within each of our agencies to improve our employee's knowledge about the needs of urban customer.

Organic

We are also working to ensure the support available through USDA programs and services for organic production and organic transition, including conservation assistance, is available for urban producers. NRCS offers support for organic and transitioning producers through the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP). NRCS has continued to invest in targeted improvements to financial and technical assistance to better serve organic producers, including actively recruiting more Technical Service providers (TSPs), improving outreach efforts, and updating our conservation practice standards and payments to better serve organic producers. The demand for conservation assistance to support organic and transitioning producers exists in both rural and urban communities and we are continuing to tailor these tools and programs to expand investments in organic conservation. We are also expanding training and support for NRCS field staff, and this will include within urban communities, to support organic and transitioning producers.

Removing Barriers and Other Efforts to Improve Services

Within NRCS, we are undergoing a thorough review of all our guidance and technical documents, practice standards, and payment rates to ensure they do not present barriers to participation for urban and small-scale producers. We also want to ensure the payment rates are reflective of the costs of producing food in urban locations. For example, we are looking at the units of measurement within our practice scenarios, features of conservation practices when working on smaller scales, and labor and transport issues that appropriately represent producer costs. We have already undertaken adjustments to high and low tunnel standards and are looking now at practices needed to improve soil health, address storm water runoff, water conservation, and pollinator habitat in urban communities.

Conclusion

USDA is committed to advancing urban agriculture in communities across the country and the [OUAIP] will continue to play a critical role in working across USDA to provide financial assistance to individual producers, invest in community projects, support agricultural education, spur innovation, and give urban producers a voice in USDA at both the local and national levels.

We will ensure that the continued growth of the Office and urban agriculture investments at USDA is driven by community and public input, including through the feedback received at the inaugural Federal Advisory Committee meeting and the future work of the Committee.

These actions are a significant step forward, however we know there is more work to be done to ensure we can build trust and provide quality service in the urban communities we are working to serve. USDA is committed to providing tangible results for urban and innovation agriculture through partnerships with communities, stakeholders, and individuals that are made possible through the authorities provided to the Office of Urban Agriculture and Innovative Production and through a variety of other farm bill programs.

The CHAIR. Thank you very much for both of the testimonies. At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us to get as many questions as possible. Please keep your microphones muted until you are recognized in order to minimize background noise. I recognize myself for 5 minutes.

Honorable Jennifer Lester Moffitt, may I ask you, what steps are USDA taking to reduce supply chain challenges to further support orderly marketing of fruits, vegetables, and other specialty crops?

Ms. MOFFITT. Chair Plaskett, thank you for that question. We are taking several steps because we know the challenges are many and so the solutions also must be many. So, one of the key things that we are doing of course is working on many of the port issues and the supply chain issues with ports, so just a couple weeks ago I was able to join Senator—yes, I was able to join, sorry, Senator Cantwell in Portland at the Port of Portland to open a new pop-up site there so ag shippers can get their products to international markets and also domestic markets.

I think a key thing is the work that we are doing on more and better markets generally the work we are doing on local and regional markets, the things that we are doing to create thriving local and regional food systems. So the work I talked about with the LAMP Program is very important because it is building more community capacity for producers to be able to supply local and regional markets. It is building the community networks. It is building the infrastructure. So we are working on relieving pressure points along the food supply chain by adding and enhancing existing local and regional markets throughout the supply chain.

We currently are also, of course, working in partnership with the specialty crop industry. As we know, the Specialty Crop Block Grants are really important as far as enhancing competitiveness. So again, more and better markets for specialty crops are really key and crucial.

I talked about the work that I saw in Georgia. There are so many different communities. I visited Massachusetts earlier this year as well where there are producers who are also accessing new local and regional markets. They are selling to universities, they are selling to hospitals. These are ways that we are bringing more access for especially fresh fruits and vegetables and produce into new markets and enhancing and really diversifying the supply chain.

The CHAIR. Well, can I ask as a follow-up to that, you talk about specialty crops and competitive grants. There is always an issue in all agencies at all levels in ensuring that underserved or small communities, rural areas, that those smaller farmers have access to be able to compete in these areas. Is there any special thought or what are you all doing to ensure that that takes place?

Ms. MOFFITT. Absolutely. And ensuring access to our programs is essential. It is something that is a priority for us in this Administration, and it is a priority for me personally, as someone who was a producer myself and I know how challenging it can be to access grants, to apply for grants. So things like technical assistance

are really key pieces that we are doing really to be able to provide that.

So just on Friday for our Meat and Poultry Processing Expansion Grant Program that we have at USDA, we announced new technical assistance providers. These are people that we have partnered with who we are contracted with and who are skilled and have the technical expertise to work with small and midsize producers to be able to do all of the work, the pre-application work as well as the application work to be able to apply for and access USDA funding. So technical assistance is key, and then also of course just making sure we are doing the outreach in an appropriate way and really building relationships with trusted partners, partners in the communities who know and have that same access that we are looking for so that people are aware of the program and also are able to participate.

The CHAIR. Thank you. I may not have time, Chief Cosby, for you to be able to answer this, but any written response that you could give would be appreciated. As you are aware, the 2018 Farm Bill established the Federal Advisory Committee for Urban Agriculture and Innovative Production to, “advise the Secretary on the development of policies and outreach relating to urban indoor and other emerging agricultural practices.” I understand that the Federal Advisory Committee held its first public meeting last week and was hoping if you could share with the Committee in written format or at different points if you may have this during the questioning the details of that first meeting. So thank you very much for that.*

At this time I would ask the Ranking Member, Mr. Baird, if you have any questions, your 5 minutes are next.

Mr. BAIRD. Thank you, Madam Chair. I appreciate that.

Under Secretary Moffitt, in your written testimony you say farmers and ranchers don't have extra hours in their day to navigate all the layers of application processes on their own. Does Congress need to update any of the programs in the Horticulture Title to streamline the application process making it easier for producers to apply?

Ms. MOFFITT. Yes, so certainly that is, as someone who, again, was a farmer and ran my family's farm for 10 years, I know firsthand the many hats that farmers and ranchers are wearing. And so the access to programming is really important, and technical assistance is important.

You also highlighted the need for more streamlined applications as well. That is something that we have been working on as well at USDA so that we are not just certainly providing technical assistance through trusted local partners but also working on streamlining our applications. We are constantly listening, and every grant that we do we are taking an iterative approach, bringing feedback in that we hear from producers, from applicants to make sure that we are best serving the people that we are needing to serve, and so that means making sure we are serving farmers and ranchers, making sure that we are serving communities especially as well. And so, we are taking that in and we are working on that through all of the process. Technical assistance support is a key

* **Editor's note:** the information referred to is located on p. 417.

part of that as well, so ease of application, as well as the technical assistance is a key part of what we do.

Mr. BAIRD. Well, thank you. I have another question for you. Your testimony also states that we should continue to support and strengthen markets for American agriculture, so I am kind of changing the game a little here. It is important to talk about the role both USDA Under Secretary for Trade and Foreign Agricultural Affairs and the USTR Chief Agricultural Negotiator play in developing new markets for U.S. exports. I am disappointed that neither position currently has a nominee and I hope that the Biden Administration will work expeditiously to fill these vacancies.

With that being said, are the current programs in the Horticulture Title enough to support markets for specialty crops in the United States or should we be looking at a new authority to carry out this mission? Go ahead.

Ms. MOFFITT. Yes, absolutely, thank you for that very important question. And since I have started at USDA, we have worked very closely between the Marketing and Regulatory Programs mission area and the Trade and Foreign Agricultural Affairs mission area. The work that we do collaboratively and in partnership is important to support trade, so I certainly want to recognize that, certainly, we are working ahead and charging ahead in that.

There are many programs that we have through APHIS really taking a science-based approach, looking at the science, working with our trade partners, addressing those different trade barriers, having that dialogue with our trade partners so that we can open up markets.

A really key part of that—and you mentioned in your opening statements, the PPQ section 7721, the funding that we have for plant and pest disease management, surveillance, working especially in partnership with State Departments of Agriculture and other local governments so that we know what pests are out there, we can eradicate, we can control again so that we are constantly able to address the trade issues that might arise. So we have, certainly, those important programs in place right now.

Mr. BAIRD. I really appreciate hearing about the interagency cooperation, I think that is so important that we all head in the same direction. So I want to change to the Chief. In your written testimony that the Office of Urban Agriculture and Innovative Production talks regularly with the Federal agencies like HUD and the EPA to discuss opportunities for collaboration. Can you describe this effort in more detail and what collaboration will those agencies look at?

Mr. COSBY. Thank you, sir, for that question. And I will tell you that early on we have been working alongside Secretary Vilsack and Secretary Fudge, met, and we had a lot of conversations about how the agencies can work together on urban agriculture. When you start talking about that and looking at the basic needs when you talk about housing, when you talk about food, just the basic needs, these two agencies working collaboratively together—

The CHAIR. Sorry, could you please turn your microphone on?

Mr. COSBY. It keeps going off.

The CHAIR. Thank you.

Mr. BAIRD. And, Madam Chair, I am about out of time. I have gone over time. Can we allow the witness to finish this question?

The CHAIR. Of course.

Mr. BAIRD. Thank you.

Mr. COSBY. As the agencies are working together collaboratively, as I said before, it is great that we can do that because if you can service the basic needs of individuals from the housing, which HUD helps with, and when we start talking about healthy and safe foods, which NRCS, the Office of Urban Ag is helping with, we are accomplishing a lot. But we have had a lot of conversations with our HUD partners, and we are having conversations from all the Federal family about how we can all work together to support urban agriculture and what happens in a lot of these areas.

There is a lot of help needed in our urban sector from access to land to understanding how to grow fresh fruits and vegetables, also for looking at the type of soils that these fruits and vegetables will be grown in, and so we have a lot of help that we can offer, but it has been great, the collaboration between not only all the agencies within USDA but the Federal family to pull together to support urban agriculture.

Mr. BAIRD. Thank you very much, and I appreciate the witnesses' comments. And with that, Madam Chair, I yield back.

The CHAIR. Thank you. I now recognize the gentlewoman from Ohio, Ms. Brown, for 5 minutes.

Ms. BROWN. Thank you, Chair Plaskett and Ranking Member Baird, for holding this hearing, and thank you, everyone, for joining us today to review horticulture and urban agriculture programs in the farm bill. I would first like to take a moment to recognize and congratulate Mr. Cosby on his appointment as Chief of USDA's Natural Resources Conservation Service. Prior to his current post, Mr. Cosby served as the State Conservationist in Ohio for 16 years. During his time as State Conservationist, Mr. Cosby worked to transform northeast Ohio into a national leader in the urban agriculture movement. So, Chief Cosby, you have left quite a legacy, and I look forward to working with you, building upon the success you helped jumpstart back home.

In your written testimony, you referenced your firsthand experience in promoting urban agriculture in Cleveland, so can you speak to the specific projects that were developed there?

Mr. COSBY. Thank you for the question, Representative Brown. It is great to see you.

Ms. BROWN. Thank you.

Mr. COSBY. And, as State Conservationist in Ohio for 16 years, it was great just working on urban agriculture along with all the rural things that we did. But I was approached back in 2011, 2012 then at the time by Congresswoman Marcia Fudge, who was the Congresswoman there, now is the HUD Director, Secretary. We worked and talked a lot about the Congressional district there in Cleveland and how we could help, from food insecurity and all of the health issues that were going on in the inner city from diabetes to high blood pressure and all the health risks.

Something that we talk about a lot is that—and I use this term all the time is that your ZIP Code should not dictate your life expectancy because in the inner city there in Cleveland and if you

drove down the road 10 miles, your life expectancy went up by almost 15 years because of what was happening in the inner city.

And so we looked at how we could help, and we brought in our Farm Service Agency director and we sat down and started talking about how can we help this Congressional district? And so from that we started talking about food and food insecurities and raising vegetables. One of the things that was happening in Cleveland is there was a lot of abandoned homes and homes being torn down, and so we had these abandoned lots that we talked about. There is a lot of green space we talked about.

One of the things is Cleveland is also a refugee city, folks that are coming from other countries that didn't have access to land, to grow fruits and vegetables from their native land, and so it was a great thing. We worked very closely with community-based organizations to identify the need and also to build trust in the community. A lot of times there is not trust in these communities, and so we were able to build a lot of trust there. And from that I know that in the city I know there are now close to 2,000 houses built there.

Something else that happened there when you start talking about neighborhoods, folks were able to come out in the evenings. They were there working in their gardens, and it became a social event. We had individuals that were producing vegetables and paying their way through college, entrepreneurships. You can do a lot of things from urban agriculture, and it benefits the communities so greatly.

Ms. BROWN. Thank you. That kind of led into my second question, which was the benefits you witnessed from the projects like the Cleveland High Tunnel and the High Tunnel Initiative and I was just curious if that model could be successfully replicated and scaled to other cities.

Mr. COSBY. We are already doing that. I think what we started there in Cleveland has been a model that we are trying to use across the country, all over the country with 11 offices that have been announced so far. We are working with those State Conservationists on FSAs. We are looking at how we can do that. We are establishing urban county committees out there to help with this. And so it is all hands on deck, and it is a project that is near and dear to my heart and is something that we are really going to work hard on.

But, it doesn't have to have one of these established offices. Urban agriculture can happen anywhere in this country, and so we are working with all of our State Conservationists across the country to make sure that happens.

Ms. BROWN. Well, thank you very much. I know I am nearing the end of my time, but I do have one other question. And that is that we know in 2018 the farm bill directed USDA to establish the Office of Urban Agriculture, which is currently housed in NRCS. How are you working internally within the agency and externally across agencies like the Department of HUD to grow urban agriculture? And with that, I would yield back. Thank you.

The CHAIR. Thank you. I would ask the witness if he could respond to that in writing as time has expired at this time.**

With that, I would now recognize the gentleman from Illinois, Mr. Davis, for 5 minutes.

Mr. DAVIS. Thank you, Madam Chair. It is great to be with you, my friend, and also my good friend Mr. Baird, the Ranking Member. And I appreciate you holding this Subcommittee hearing.

As the former chair of this Subcommittee, I actually have been enjoying the discussion on how we can improve the Horticulture Title to actually adapt to this post-pandemic reality where high inflation persists, ag input costs are rising, and the supply chain crisis really continues to strain our local communities. These are the issues that affect our farmers and our producers most right now, and they are not being taken very seriously in my opinion by President Biden, and I believe it is something that we are going to have to take into consideration as we look toward the next farm bill if this Administration's *status quo* continues.

The 2018 Farm Bill sought to bolster our ag economy by enhancing and creating new programs to ensure our farmers and producers can stay competitive. For example, the Local Agricultural Marketing Program, the hemp program, increased technical assistance and marketing programs for producers were always envisioned to give our domestic producers more opportunities to be successful and strengthen our national security via domestic food security.

So my question for you, Under Secretary Moffitt, it is great to see you and I appreciate you being here. Also Chief Cosby, thank you for our conversation before the hearing. I look forward to working with both of you throughout the next few years. Under Secretary Moffitt, how do you see our USDA marketing programs needing to evolve and adapt to ensure that our farmers and producers who have been at the forefront of what is looking to turn into a financial crisis for many of them, how can they keep their heads above water?

Ms. MOFFITT. Yes, thank you for that question. And, as you mentioned, many of those programs that you outlined are essentially, exactly doing that. The Local Agricultural Marketing Program is building more community capacity and connections to really strengthen the ties between farmers and consumers, close those linkages, and really strengthen the ties, so we are bringing more of that food dollar back to producers, which is an important way to strengthen our rural economy, our agricultural economy, and our food system. It also creates a really strong thriving food system.

You talked about equity and access and technical assistance to our programs, and that is very important, especially for producers. We talk a lot about building our capacity from the ground up and the middle out, really strengthening, again, the ability that farmers and ranchers can continue doing.

Certainly, we are working on and we are very well aware of many of the supply chain issues and working very intently on addressing those through the myriad of things I talked about, the pop-up sites at the ports, talked about a lot of the work that we

** Editor's note: the information referred to is located on p. 417.

are doing really to keep a finger on the pulse on what is happening, as well as pivot and address issues that we are hearing from producers, farmers, and ranchers.

I know firsthand from my own family's experience how tight things can be, and we hear that day in and day out, and that is our primary position is to really be there and to support farmers and ranchers and consumers across the country.

Mr. DAVIS. So under the marketing programs you mentioned, those are the programs that you feel are helping our producers the most to address the high inflation and rising input costs?

Ms. MOFFITT. It is very important that we are really building a thriving food economy. As we address all of the different things, we are really making sure that we are addressing it, again, from the bottom up and the middle out. That is a key thing. I see, as I have traveled around the country visiting with different consumers, for example, and producers, I was in Iowa last week meeting with a pork producer, and she talked about how they are working and procuring and buying and building community access with 1,700 different local suppliers. And so that is really about addressing all of the different supply chains because as we are looking at important work on meat and poultry supply chain, it also is about all of the producers, whether it is equipment manufacturers, seed dealers, electricians, all of the people in rural America who are part of our ag economy really keeping that pulse on and making sure that we are doing what we can to address those.

Mr. DAVIS. Well, thank you, and thank you for your responses. I look forward to working with you over the next few months and into the next Congress as we debate this next farm bill to see the real results.

And, Chief Cosby, one last comment. I would really love to work with you as we go to the next farm bill on creating some flexibility within the programs that your agency oversees.

Thank you. I yield back.

The CHAIR. Thank you very much for your questions.

At this time I recognize the good doctor from Washington State, Congresswoman Schrier, please, for your 5 minutes.

Ms. SCHRIER. Well, thank you very much, Chairwoman Plaskett, for holding this important hearing, and welcome to our witnesses.

Under Secretary Moffitt, it is a pleasure to see you again, and I want to thank you again for coming out to Washington State a few months back so that you could see the great work happening and how important specialty crops are to Washington State. When you were in town, we were able to highlight the importance of the Specialty Crop Block Grant Program, and I just want to take a moment to emphasize just how important this is. It falls under the Horticulture Title of the farm bill, and the Block Grant Program and its partner, the Specialty Crop Research Initiative, fund research to address the critical needs of specialty crops in our state, around the country, and frankly, around the world because of applicability. They support more than 300 crops in Washington State, and past funding for projects in Washington has supported efforts to combat fungicide resistance in wine grapes, precision irrigation for fruit growers, pest prevention, and we also talked about little cherry disease.

Under Secretary Moffitt, I would love to hear a little bit from you about these vital programs and how you evaluate them. So, for example, could you tell us about the work that USDA has done to establish standards to measure the performance of the Specialty Crop Block Grant Program and the Farmers' Market and Local Food Promotion Programs and what those measures tell us about how these programs are meeting their goals?

Ms. MOFFITT. Yes, thank you so much, Representative Schrier. It was a pleasure to be out there in Washington State to meet with producers and to see the impact of the Specialty Crop Block Grant Program. Coming from the California Department of Agriculture, I know how important that program is in partnership and administration with State Departments of Agriculture to see what was going on and the research that is being funded in the programs that are being funded in Washington State was really just a wonderful, wonderful day, so thank you for having me in your district.

And, yes, performance measures are so important, and we actually did a lot of work in the past couple years, and I am really pleased that this round of the Specialty Crop Block Grants, as well as our other programs, have new performance measures, new objectives that we have created, and we did this in very strong partnership with grantees. We wanted to make sure that as we were adjusting our performance measures we were getting the data that we need to really provide the input but also that we are not being an overburden on the people who we are trying to, supporting and are partnering with in that research. So we did update our performance measures last year, and the new round of Specialty Crop Block Grants now includes those new performance measures.

We see the impact. As you mentioned, of course, the number of grants in Washington State through the life of the program, we have funded over \$880 million in programming in, again, partnership with states as well as on over 11,000 different crops. And so gathering that data so that we have the feedback that we need to better understand the impact of the program while also not being a burden too much on our grant applicants is a key part of that. So I am excited that we were able to update our performance measures and our metrics there and look forward to getting new data from producers and from our applicants as well.

Ms. SCHRIER. Thank you. And thank you for striking that balance. I think that will be a big relief for our farmers and researchers.

I wanted to mention two more things. First is really short. I just wanted to thank you for finalizing the rule for the Origin of Livestock. My organic dairy farmers will be just thrilled to hear this.

And then last, I wanted to touch on SCRI, the Specialty Crop Research Initiative funding. There is supposed to be a matching element. There was a waiver that was available for SCRI that allowed our farmers to participate. That was left out in the last farm bill. We have had a fix every year to make sure that our farmers and our researchers could participate because a matching fund would make that prohibitively expensive and would block this. And so I would just like to call attention to that to make sure that we keep that waiver in this next farm bill.

And thank you very much, and I yield back.

The CHAIR. Thank you for your questions.

And at this time I will recognize Representative Balderson for your questions for the witnesses in this first panel. And thank you for participating in the hearing.

Mr. BALDERSON. Thank you very much, Madam Chair. And I thank everyone for coming to the Committee today. Perfect timing for myself I guess.

My first question is for Under Secretary Moffitt. Good morning. You mentioned in your testimony that the USDA is allocating \$130 million in ARPA funds to promote competition and create more and better markets for local and regional food producers by expanding opportunities to sell to various institutions. Can you elaborate on what exactly USDA will be spending these funds on and what current or new programs within the Horticulture Title will be required for USDA to properly expand these opportunities to farmers?

Ms. MOFFITT. Yes, sir, and thank you for that question. The \$130 million is included in the Local Agricultural Marketing Programs Grant, the Local Food Promotion Program, as well as the Regional Food Systems Partnership Program, two grant programs that are part of that family of four grants. And what we have seen in the past couple years is a very strong trend upward of applications, so we have seen almost a doubling of the applications from 2020 to 2021 in the demand for the program, and so hence the need to supplement that with ARPA funds. We are really focused on and encouraged to see applications that are focused on local and regional food systems for institutional markets, so that is hospitals, schools, universities, because we see the value in really strengthening those markets. There is a ton going on around the country, and so for us at USDA to invest in that is something that we see as very important.

Mr. BALDERSON. Okay. Thank you. My next question for you. You discussed at length the importance of the Specialty Crop Block Grant Program and how AMS has implemented and standardized national outcome measures to demonstrate the program's performance. Are there any changes that you think need to be made to the program in order to enhance the competitiveness of specialty crops in the United States?

Ms. MOFFITT. Yes, sir. As I was just mentioning to Representative Schrier, the Specialty Crop Block Grant, since its inception in 2006, has funded over \$880 million, 11,000 projects. A key part of that program is our partnerships with states, and so the money is actually allocated to the states and the states implement the program. And that is really important because the states can design the program to best suit the needs of their state specialty crop industry, so research, promotion, education, all of those things are already included and are key parts of that program. So, we see the value in that partnership continuing to strengthen our partnership.

We just made some updates, as I was also mentioning, on our performance metrics as well, so we are getting really good data back on how well the program is performing. And so those are new metrics in this current round of funding as well. So it is an important program, and we very much value that partnership with the State Departments of Agriculture in administering it.

Mr. BALDERSON. Thank you very much. And, Madam Chair, I yield back. Thank you.

The CHAIR. Thank you for your questions. At this time I recognize my good friend Congressman Carbajal for his line of questioning.

Mr. CARBAJAL. Thank you, Madam Chair, and thank you to all the witnesses for being here today and providing us with your testimony on these very important programs.

My district grows a variety of specialty crops, including strawberries, broccoli, cauliflower, avocados, cut flowers, and more. The success of these crops is in large part because of the hard work by our farmers and our farmworkers, but also because of the important research and innovative programs funded by the farm bill. It is important that programs under the Horticulture Title help bolster the production and competitiveness of specialty crops.

Under Secretary Moffitt, the fresh markets created at metro stations in Atlanta are the type of innovative programs we need to ensure all people, regardless [inaudible] have access to fresh fruits and vegetables. Can you walk me through what has made these markets successful and what support USDA would need [inaudible]?

Ms. MOFFITT. Yes, sir, so I don't think I caught the last part of your question, but I can talk a little bit about MARTA and what I saw as—

Mr. CARBAJAL. Let me repeat it for you.

Ms. MOFFITT. Thank you.

Mr. CARBAJAL. Can you walk through what has made these markets successful and what support USDA would need to implement similar programs in other states?

Ms. MOFFITT. Absolutely, yes, so what I saw in MARTA (Metropolitan Atlanta Rapid Transit Authority) was the community coming together to solve a problem and to look for solutions within their existing infrastructure that just needed more connections, so fostering that connection. So with MARTA's leadership but in very strong partnership with the Atlanta Food Bank and many, many other local organizations, as well as producers, I saw them coming together to identify local farmers who had product who were interested in selling it at those markets. I saw the opportunity as well, they utilized the space at their transit stations. They have carts there. And then of course in partnership with, and looking at the EBT Program, and many of the people who are purchasing fresh fruits and vegetables through the carts are using the EBT Program and the SNAP Program.

And so looking at all of those linkages, connecting the dots is really important, and that is where things like the Regional Food Systems Partnership Program and the Local Food Promotion Program, as well as the Farmers' Market Promotion Programs are really important because they build the capacity within the community to connect all of the dots together so that the producers who have the food are able to have access to new markets, as well as of course the people who are really in many communities that are nutrition-insecure have access to fresh fruits and vegetables. But it doesn't come naturally, and oftentimes I know as a former

farmer, we are busy farming our fields, and so, we don't know who is out there, so building the connections I think is very important.

The Specialty Crop Block Grant also does a very good job of helping foster those connections, as well as, as you talked about, research as well. And coming from the California Department of Agriculture, I saw firsthand through so many of the projects we funded the importance of research, as well as education and technical assistance and then promotion of getting products to market through that program as well.

Mr. CARBAJAL. Thank you. Moving on, another question for you, are cut flowers available at these markets? If not, do you think it is feasible to include them to improve the competitiveness of this specialty crop?

Ms. MOFFITT. Yes, the cut-flower industry is such an important industry I know in your district and in many areas around the country. I was there in February, so there weren't too many cut flowers there, but I do know that they are always looking at who are the local producers, what do they have, and the opportunities. So, I did see things like honey there and other products, and so, certainly, hopefully there are cut flowers available because it is such an important industry to our economy.

Mr. CARBAJAL. Thank you. It is incredibly important that we reduce food waste and find ways to support food recovery efforts, especially when we consider that one in ten Americans are food-insecure. Mr. Cosby, can you elaborate on some of the lessons learned from the Community Compost and Food Waste Reduction Pilot and what the compost is used for? Is data on waste diverted from landfills being collected?

Mr. COSBY. And thank you for that question. And, we are working very closely with a lot of these folks that have applied and received these grants. And from what we are learning is that there is a big need out there for compost, especially when you are getting into some of the situations where some of the areas have been abandoned or the buildings have been abandoned or we have some soils issues. And so folks need good, healthy compost to go ahead and help them raise these fruits and vegetables, so it has been great to watch that happen.

And, when we start talking about food waste reduction, we are working very closely with a lot of those grant recipients, especially like schools where food waste could be tremendous. And so we are trying to look for ways, how do we create an atmosphere where you are not wasting that food? And then if you do have that surplus, how do we make sure it gets to some of these facilities so it can be composted and turned back into productive soils? So we think those two opportunities are great, and it is working very well.

Mr. CARBAJAL. Thank you.

The CHAIR. Thank you very much.

Mr. CARBAJAL. I am out of time.

I yield back.

The CHAIR. The gentleman's time has expired.

The chair recognizes the gentlewoman from Louisiana, Ms. Letlow. Thank you very much for joining us for the hearing.

Ms. LETLOW. Thank you so much, Chair Plaskett, Ranking Member Baird, and to our USDA officials with us today. Thank you for

the opportunity to discuss and review horticulture and urban agriculture programs authorized by the farm bill.

As we all well know, agriculturalists are the cornerstone of food and fiber production in America. In my home district, many of the rural communities are fueled by the perseverance of our local agricultural producers, large, and small. Like many sectors of agriculture, niche and specialty crop farmers throughout Louisiana continue to face challenges, whether that be labor shortages, increased input costs, availability of risk management tools, or access to new market opportunities. That is why it is essential we are spearheading this conversation today.

Under Secretary Moffitt, as you know, the Plant Pest and Disease Management and Disaster Prevention Program and the National Clean Plant Network were originally established through the farm bill and have since been made permanent law and incorporated into APHIS Plant Protection and Quarantine's base budget. As we continue to hear, these programs provide critical funding to pest prevention, mitigation, and addressing emerging challenges for specialty crop producers. A hallmark of these programs has been the robust involvement of stakeholders in the affected specialty crop industries, particularly in deciding which activities to fund. Can you talk more about these programs, and what is this Administration's commitment to stakeholder engagement for these programs? And how do you plan to incorporate their input into project funding decisions?

Ms. MOFFITT. Yes, thank you so much, Congresswoman Letlow. And it is a pleasure to meet you and to be here today. Those programs that you described are really key and important programs to the work that the team at APHIS does. Just a few weeks ago when I was down in Georgia I also visited the dog training center there, and it is an important part. We see them when we are at airports, but they are also working behind the scenes at baggage facilities around the country and parcel facilities really to make sure that they are sniffing out and detecting any sort of fruits or vegetables that might be coming into the country that could have pest and disease. So those are things that are funded in part through those programs, very important and critical programs as well.

You asked about stakeholder engagement. Stakeholder engagement is essential to the work that we do. We do our best work when we are listening and learning and hearing from the people out in the field, the people with the expertise, and really adapting and serving those folks. And so stakeholder engagement is something that I am committed to. I know the team at APHIS also has a strong commitment too, and we look forward to the advisory committees and all of the work that we do to get feedback to make sure that our programs best serve the needs of the community that we are serving.

Ms. LETLOW. Thank you so much. I look forward to working with both you and Chief Cosby as we work towards the next farm bill. I yield back the remainder of my time.

The CHAIR. Thank you very much for your line of questioning. And I would like to ask the esteemed Congresswoman Pingree of Maine for her questions.

Ms. PINGREE. Thank you very much, Chair Plaskett. Thank you so much for holding this hearing. And I am not sure about the esteemed part, but I appreciate your confidence in me. So, Under Secretary Moffitt, we are so pleased to have you with our Committee today and to have you in the position that you have, so thank you so much for being with us.

And I just can't tell you how pleased I am that you made the announcement about the Origin of Livestock rule. I don't know that I have had a Committee hearing that I haven't had to bring that up and ask the USDA when something is going to happen, so the fact that we get to tell our constituents now that we are moving forward on this is going to make a huge difference, particularly right now when the dairy farmers, organic dairy farmers have been so challenged throughout the Northeast with losing a contract, so this is a really important time. I can't thank you enough.

And I am also glad to hear so many questions related to LAMP. I was really pleased to have a chance to work on that in the 2018 Farm Bill, so I appreciate some of the conversations people have been having about streamlining the process, making sure it is accessible. I hope we can continue going in that direction.

So one kind of quick question about this whole idea of how we support more resilient local and regional supply chains. I often hear about the need for affordable and accessible capital to develop infrastructure, and I am talking about things like food safety equipment, packing equipment, cold storage, similar infrastructure that are on farms and food hubs which are just so important in that domain. But a lot of times I have also heard that AMS rules around grantmaking prohibits AMS grants from investing in such badly needed food systems infrastructure. Do you think there is something we should be looking at when it comes to the 2018 Farm Bill and LAMP to make sure that this is a possibility and it is covered?

Ms. MOFFITT. Yes, thank you, Representative Pingree, and certainly it is an exciting day to be able to announce the Origin of Livestock final rule, as well as I look forward to working on implementing that. And I just want to thank you and other Members of Congress, as well as the Northeast dairy industry as a whole and the State Departments of Agriculture for engagement over the past 6 months on Northeast organic dairy issues. We announced the Dairy Business Innovation Center funding, and hopefully that is a big part of the solution, but we also know that Origin of Livestock is another piece of it, again, multiple solutions for a very large, beastly problem.

You asked about the LAMP Program being able to purchase equipment, and some of the much-needed things that we see, of course as producers are coming together to be able to aggregate, to do food hubs, those sorts of things are very, very important. We have been working with the team at AMS on the opportunities of what the grant funding can fund, and we continue to have those conversations about capacity is really important and what does that look like. So, we are happy to talk further with you guys, provide technical assistance, provide answers that you have about what we can and cannot fund and where are the opportunities there, so we look forward to further engagement on that.

Ms. PINGREE. Great, thank you. One of the things that was in your testimony—and I don't mean to spring this on you because I don't know that you are going to have a complete answer—but was around hemp production and the opportunities we created in the 2018 Farm Bill but then some of the challenges that our producers have faced. I have a bill called the Hemp Advancement Act of 2022 (H.R. 6645) that really deals with some of the statutory changes, the issues people have had around the THC threshold, use of DEA labs, 10 year ban on felons working in the field and getting licensed. So I know those are sort of specific, but what I often hear from the hemp producers when we are talking about those obstacles is just the need for more comprehensive support on marketing, on processing development. It just sort of breaks my heart that we opened up this opportunity, yet still most of the hemp that is used for clothing or for a whole variety of uses that could be an expansion area for us, not just the CBD part, but it is going to require a lot of support and engagement. And I don't expect you to have a thorough answer, but is that something we can sort of talk about and maybe look at in the next farm bill, or do you see some opportunities there for the USDA?

Ms. MOFFITT. Yes, absolutely. And, this is such an important and growing industry. I wouldn't say it is a new industry, but it is a newly, revived industry from a long time ago. And we do have an interagency working group at USDA looking at how hemp producers can access all of the funding and the funding that we do have at USDA and the programming that USDA has as well. I am happy to talk with you further about the questions that you have. And, certainly I know our team has been, we are aware of your bill and providing technical assistance and please do know our door is always open for that.

Ms. PINGREE. Great. Well, you are exactly out of time, I am exactly out of time, so thank you. I yield back, and I really appreciate your being with us today.

Ms. MOFFITT. Oh, thank you.

The CHAIR. Thank you very much for your questions as well.

And I want to thank the witnesses on our first panel for being with us today. Under Secretary Moffitt and Chief Cosby, thank you for your testimony and for responding to the questions that Members had. The Committee will take a brief 5 minute recess to allow our witnesses to depart and for our second panel of witnesses to take their seats or to come onto the Zoom screen. Thank you.

[Recess.]

The CHAIR. Okay. We are ready to begin on the second panel. And I want to thank you all very much for your patience. It had been my hope to be in the committee room. Personal reasons have me still in the district attending to family matters, so I am grateful for the ability that we have virtually to still conduct meetings and still engage in the people's business while also attending to the life eventualities that happen.

I want to call the Committee to order, and I am pleased to welcome our second panel of witnesses to the hearing. Our first witness for this panel is Ms. Laura Batcha, who is the Chief Executive Officer for the Organic Trade Association, which is critical to the discussion that we are having here this morning.

And to introduce our second witness, I am pleased to yield to our colleague from California, Mr. Panetta.

Mr. PANETTA. Thank you, Madam Chair. I appreciate this opportunity. But also it is a true honor this morning that I get to introduce our next witness for today's hearing, Brie Reiter Smith. I am proud to introduce Ms. Smith not only because she is from my district and she is actually a neighbor of mine, but I do believe that Ms. Smith knows exactly what it takes to grow, to harvest, to pack, to transport, and to sell a berry. Yes, based on her background, she understands the many challenges that go along with producing not just berries but all specialty crops and the difficulties from Mother Nature to our mandates to our markets to labor.

Now, look, with most people in agriculture, Brie will be the first to tell us about those challenges. But what makes her and her family very unique is that they also talk about, and more importantly they act about, coming up with solutions. Now, Brie is a fifth-generation berry farmer who, with her husband Brian, have a blueberry farm in Chile and a blackberry ranch in California.

Brie also serves as a Vice President of Product Leadership for the world's largest berry company, Driscoll's, where she is responsible for looking into the future of berry production and developing strategies to build the business that her family started in the late 1800s. It is a company that has a one-family philosophy and has got to a point where they work with thousands of families, thousands of berry growers across the world, so she deals with all types of farmers and farmworkers and deals with all types of problems but, more importantly, she also works hard to find all types of solutions.

As a California native, she received a degree from Cal Poly University and an MBA from Thunderbird School of Global Management. She brings with her a legacy of service in the agriculture industry and a wealth of knowledge that I know will benefit this Committee hearing today. She understands legacy but, more importantly, she understands and accepts the responsibility to not just uphold but also to further the legacy of not just her family but other families in agriculture.

For that, it is my honor to introduce to you Ms. Brie Reiter Smith, and I yield back.

The CHAIR. Thank you very much to my distinguished colleague from, as he deems it, the Salad Bowl district in California.

And it is my honor to also introduce our third witness for the panel, Mr. Marc Oshima, who is the Chief Marketing Officer and co-founder of AeroFarms. We are really glad to have you with us.

And our fourth witness is a dear friend of mine and an important person in the agriculture of the U.S. Virgin Islands, Nate Olive, who is the owner and operator of Ridge to Reef Farm. Ridge to Reef Farm is a 100 acre organic certified farm on the Island of St. Croix. Dr. Olive, Nate Olive has a Ph.D., is also the President, duly elected of the Virgin Islands Farmers Alliance, which strives to be a unified voice for farmers in the Virgin Islands. He is on the Island of St. Croix, which is my home island in the Virgin Islands of the United States, and I want to thank him for offering his time, his tireless dedication to farming and to the agricultural growth of the Territory, as well as to the young people and ensuring that we in

the Virgin Islands at least attempt to make a strive and effort to reverse the complete reliance on outside food production to sustain us.

To introduce our fifth and final witness for this panel, I am pleased to yield to the Ranking Member, Mr. Baird.

Mr. BAIRD. Thank you, Madam Chair. And it is my distinct pleasure to introduce Director Kettler to testify before us today. And Bruce is the Director of the Indiana State Department of Agriculture, and he currently serves as the Second Vice President of the National Association of State Departments of Agriculture. With over 30 years of experience across numerous sectors of the agricultural industry, Bruce has a deep understanding of the diverse needs of the industry and the important programs authorized in the farm bill.

At ISDA, Bruce is a tireless advocate for agriculture, working to promote environmental stewardship, enhance economic opportunities for Hoosier farmers, and grow the next generation of leaders.

In addition to his roles with the Indiana State Department of Agriculture and NASDA, Bruce is the Director of the Agribusiness Development for the Indiana Economic Development Corporation and serves on the Ohio State University President's Alumni Advisory Council and on the Dean's Advisory Council for the Purdue College of Agriculture.

Bruce, I am really honored to have you with us here today, and I look forward to hearing from you and share your testimony with the Committee. So thanks for being here, Bruce. I yield back.

The CHAIR. I thank the gentleman. I welcome you all today. We will now proceed to hearing your testimonies. You will each have 5 minutes. The timer should be visible to you, and it will count down to zero, at which point your time has expired.

Ms. Batcha, please begin when you are ready.

**STATEMENT OF LAURA BATCHA, CHIEF EXECUTIVE OFFICER
AND EXECUTIVE DIRECTOR, ORGANIC TRADE ASSOCIATION,
WASHINGTON, D.C.**

Ms. BATCHA. Chair Plaskett, Ranking Member Baird, and Members of the Committee, thank you for holding this hearing and inviting me to testify on behalf of the organic sector. I am Laura Batcha, CEO of the Organic Trade Association. Our members represent the entire organic supply chain, including growers, shippers, processors, certifiers, regional farmers associations, brands, and retailers in all 50 states.

Last year, organic sales in the U.S. grew by more than 12 percent, reaching a record high of \$62 billion. Today, more than 15 percent of produce sold, nearly ten percent of dairy and eggs, and more than seven percent of packaged food sold in the United States are certified organic, demonstrating the importance that consumers place on this sector.

Today, we released the results of a study by the firm Edelman that is an organic follow-on to their widely cited consumer trust barometer. What we found was that 89 percent of consumers say that the USDA should update the organic standards periodically, and 87 percent of consumers expect these updates to reflect evolving understandings about soil, climate, health, animal welfare, and more.

Yet, less than 45 percent of the general population gives USDA high marks today for the stewardship of the National Organic Program.

Organics is at a critical juncture and inflection point. We know that consumers have fueled the strong growth of the industry for over 20 years, but the marketplace is becoming more crowded with new certifications and label claims. What sets USDA organic apart from other private certification and marketing claims is that the standards are developed and enforced by Federal law and regulations. It is a voluntary regulatory program where the market rewards businesses and farmers who choose to opt-in and meet these strict standards. And participation in the program is an important opportunity to diversify farms, create sustainable practices and livelihoods.

For the last 20 years, organic standards have remained largely static. In fact, when it comes to organic practice standards, only one major rule has been implemented by USDA in the last 12 years—well, two. We have heard one announced this morning, so we appreciate that. Nearly two dozen other recommendations to improve the standards have been submitted to USDA by the National Organic Standards Board, the Federal Advisory Committee established in the Organic Foods Production Act of 1990 (Pub. L. 101–624). They all remain unimplemented. The very purpose of the Organic Act is to create uniform, robust standards for marketing organic products nationwide. Many of these recommendations address inconsistencies and lack of clarity in the existing regulations that have led to competitive harm and market failure. Others improve sustainability outcomes in organic production systems.

That is why OTA supports H.R. 2918, the Continuous Improvement and Accountability in Organic Standards Act, a bipartisan piece of legislation introduced by Representatives Peter DeFazio, Rodney Davis, Chellie Pingree, Ron Kind, Dan Newhouse, and Jimmy Panetta. The bill updates the way USDA would administer these standards and sets forth a future process by which the National Organic Program can adapt in a more timely and transparent fashion.

We applaud the announcement this morning by Under Secretary Moffitt that USDA is publishing the Origin of Livestock rule, 19 years in the making since that recommendation was handed off to USDA. While we are encouraged that USDA has started the process of moving forward on the regulatory backlog, in the next farm bill we would like to see this legislation be reintroduced with a focus on institutionalizing a more stable future for organic by restructuring the public-private partnership, investing in oversight and enforcement, and prioritizing continuous improvement.

Organic provides economic opportunities for farmers and businesses, creates jobs, and lifts rural economies while also utilizing sustainable farming practices that are proven to help mitigate the threat of climate change. There is an important opportunity to invest in conservation, technical assistance, as well as focused market development and infrastructure to address supply-chain constraints and increased domestic production of organic.

We look forward to working with Congress and Members of this Committee to advance organic in the 2023 Farm Bill. Thank you

for the opportunity to provide my testimony this morning to inform Federal policy, and I am happy to address any of your questions. [The prepared statement of Ms. Batcha follows:]

PREPARED STATEMENT OF LAURA BATCHA, CHIEF EXECUTIVE OFFICER AND EXECUTIVE DIRECTOR, ORGANIC TRADE ASSOCIATION, WASHINGTON, D.C.

[Chair] Plaskett, Ranking Member Baird, and Members of the Committee, thank you for holding this hearing and inviting me to testify on behalf of the organic sector on the upcoming farm bill. I am Laura Batcha, CEO and Executive Director of the Organic Trade Association (OTA), the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States, representing over 9,500 organic businesses across 50 states. Our members represent the entire supply chain including growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers, and others.

Organic is an increasingly important part of American agriculture and represents one of the fastest-growing food and farming sectors in the U.S. and global marketplace. In 2020, U.S. organic sales grew by more than 12%, reaching a record high of \$62 billion. Today more than 15% of all produce sold in the U.S. is certified organic, nearly 10% of dairy and eggs are organic and more than 7% of packaged foods as well as grains are organic, demonstrating the importance consumers place on this sector.¹ Consumers are also driving demand globally, where the USDA organic label remains the gold standard. U.S. organic exports increased 8% in 2021.²

Organic in the Farm Bill

The farm bill provides critical support for the growing organic sector with many programs authorized to assist organic including the Organic Data Initiative, the Organic Research and Extension Initiative, the Organic Certification Cost-Share Program, the Environmental Quality Incentives Program Organic Initiative and more. Most importantly, every farm bill the Organic Foods Production Act (OFPA) the law that authorized Federal organic standards, is amended and updated to reflect the latest policy and oversight measures that are needed to ensure a strong and healthy U.S. organic sector.

The 2018 Farm Bill included the Organic Farmer and Consumer Protection Act, legislation that was championed by Members of this Committee that gave the USDA National Organic Program (NOP) more resources and authority to combat global fraud in the organic trade. This spring we anticipate implementation of these provisions when USDA releases a final rule on Strengthening Organic Enforcement.

The rule should close gaps and eliminate major fraud risks in the organic supply chain by requiring all entities that handle organic products including brokers, traders, importers, and exporters to obtain organic certification. For the first time, all imports of certified organic product coming into the U.S. will be accompanied by an electronic import certificate that will be uploaded to the U.S. Customs and Border Protection's Automated Commercial Environment System. I will note that the release of this final rule is past the Congressional deadline set for implementation which is going to further delay the electronic import certificate tracking system. The rule will also require certifiers to conduct mass-balance and trace back audits as well as increase unannounced inspections of organic operations. Moving forward all certified operations will have to develop an organic fraud prevention plan.

The Organic Foods Production Act and the Next Farm Bill

Looking ahead to the 2023 Farm Bill, OTA has engaged in an extensive outreach process to collect feedback from our members and other stakeholders on priorities. We hosted a series of in-depth workshops on the future of organic. Additionally, OTA's Farmers Advisory Council, a coalition that represents more than 8,500 organic farmers, held numerous working sessions to delve into the efficacy of current farm bill programs and outlined the most critical needs and recommendations of organic farmers. We will release our full farm bill policy platform early this summer. Today I will provide a preview of our top priorities.

Organic is at a critical juncture and inflection point. We know that consumers recognize and trust the USDA organic label, fueling the strong growth of the industry over the last 20 years. But the marketplace is becoming more crowded with new certifications and label claims and consumer preferences on how their food is pro-

¹ Organic Trade Association's 2021 Organic Industry Survey.

² FAS Global Agricultural Trade System.

duced are evolving and shifting rapidly. What sets USDA organic apart from other private certification and marketing claims is that the standards are developed and enforced by Federal law and regulations. It's a voluntary regulatory program that rewards businesses and farmers who choose to opt-in and meet strict standards through market premiums.

However, organic's greatest challenge and our biggest opportunity for the next farm bill lies in living up to the expectations that consumers and businesses have of the organic seal to continuously improve and advance the standards. When the Federal organic regulations were implemented in 2002, it was known that additional modifications and updates would need to be made later down the road. There was still a lot that needed to be worked out and as the industry sky-rocketed in popularity, emerging sectors also wanted the opportunity to become certified organic. Unfortunately, advancing and updating the standards regularly is not what has happened in practice and improving this process should be the major focus to support organic in the 2023 Farm Bill.

For the last 20 years the organic standards have remained static. In fact, when it comes to organic practices only one major update has been implemented by the USDA NOP, a final rule on livestock grazing and access to pasture. That was twelve years ago. It hasn't been for a lack of will on the private-sector's part. Industry and stakeholders have come together and agreed upon recommendations to improve the standards nearly two dozen times at the National Organic Standards Board, a Federal advisory board to the USDA that must be consulted on updates to the organic regulations. Some of those recommendations have been sitting on a shelf or in various stages of rulemaking limbo for more than fifteen years and they span everything from mushroom production, aquaculture, animal welfare, pet food, personal care, greenhouse standards and more.

In some cases, the recommendations are to create clear, enforceable standards for emerging sectors and in other cases some of the updates are sorely needed to address inconsistencies and lack of clarity of the existing regulations that have led to competitive harm and market failure. The very purpose of the Organic Foods Production Act is to create uniform, robust standards for the marketing of organic products. The failure of the government to keep pace with these expectations has stifled industry innovation, put organic businesses and farmers at a competitive disadvantage, resulted in varying interpretations and inconsistent application of the standards by certifiers, and led to declining consumer trust in the seal.

OTA supports H.R. 2918, the Continuous Improvement and Accountability in Organic Standards Act, bipartisan legislation introduced by Representatives Peter DeFazio, Rodney Davis, Chellie Pingree, Ron Kind, Dan Newhouse and Jimmy Panetta. The bill requires the USDA NOP to clear the backlog of stalled recommendations to update the standards, sets forth a future process by which the NOP must respond to industry recommendations in a more timely and transparent fashion, and requires the NOP to audit certifiers and ensure that new regulations and updates to the standards are being applied consistently. Regularly updating the standards was Congress' intent when the OFPA was included in the 1990 Farm Bill but that has not been fulfilled due to the administrative challenges at USDA. It is the role of Congress to amend the Act to make it very clear that standards development is a core requirement that must be followed through by USDA.

We are encouraged that USDA has started the process of moving forward on the regulatory backlog by taking public comment from stakeholders on priorities for implementation. However, in the next farm bill we would like to see this legislation be reintroduced with a focus on institutionalizing a more stable future for organic. The next farm bill should restructure the public-private partnership, invest in oversight and enforcement, and prioritize continuous improvement.

We believe the structure of the NOP should be updated to allow for prioritizing standards and market development *along with* maintaining strong compliance and enforcement. Specific funding and resources must be allocated for standards development and implementation at the NOP. There should be a clear statutory requirement for USDA to review and update organic practice standards beyond just the National List of allowed and prohibited substances used in organic.

Although progress has been made in recent farm bills to provide NOP with more resources, authority, and tools to increase enforcement and prevent fraud in the marketplace, there are still loopholes that remain. USDA's scope of authority must be expanded to combat the improper use of the term organic on uncertified products such as personal care, textiles, dietary supplements and businesses such as grocery stores, dry cleaners and restaurants. The fraudulent use of the term organic misleads consumers and hurts the USDA organic label and brand. The NOP's accreditation function should also be updated to align with best practices in third-party certification systems and auditing.

Continuous improvement is the bedrock of organic but it is not expressly required by the law or regulations. USDA must collaborate with accredited certifiers to advance the outcomes on farms, ranches, and facilities certified to the organic standards.

We know that this is critical to maintain consumer trust. OTA recently commissioned the firm Edelman to conduct a study on consumer perception of organic, an organic follow-on study to their widely cited consumer trust barometer. What they found was that 89% of consumers say that the USDA should review and update the organic standards periodically. 87% of consumers expect that the organic standards should be updated to reflect evolving understandings about soil, climate, health, animal welfare and more.

We look forward to working with this Committee to ensure that organic continues to have a bright, successful future by creating oversight and tools for continuous improvement in the next farm bill. This is essential for USDA organic to remain the gold standard in certification and marketing.

Other Core Priorities To Advance in Organic in the 2023 Farm Bill

In addition to making updates to the Organic Foods Production Act, there are also several other priorities that could advance organic in the next farm bill. The Committee can support growth and market development in the U.S. organic sector by providing funding and incentives for those seeking to transition to organic, increase processing and infrastructure capacity, and stabilize supply chains by facilitating more domestic production of targeted organic crops where market demand exceeds supply.

The next farm bill is an opportunity to increase conservation and technical assistance for organic and transitioning farmers. Organic agriculture is a regenerative system requiring practices that advance sustainability in agriculture like crop rotation, cover cropping, building soil health, increasing biodiversity, and reducing nutrient pollution. However, many agronomists, extension agents, NRCS staff, and farm consultants lack in the knowledge and understanding of organic systems making them ill-equipped to support organic farmers and those interesting in adopting organic practices.

There are also core farm bill programs that support organic such as the Organic Research and Education Initiative (OREI) and the Organic Certification Cost-Share Program. Robust funding for both of these programs is necessary to keep pace with the growth of the industry. Increased funding for the Market Access Program, Foreign Market Development Program and Technical Assistance for Specialty Crops will provide U.S. organic businesses with export opportunities and reduce trade barriers.

Last, not every problem requires more spending. There are several programmatic changes that can be made to existing farm bill programs to streamline access and reduce barriers for organic farmers. Improvements to organic certification cost-share, crop insurance, conservation, risk management and other farm bill programs are always ripe for consideration.

In conclusion, organic provides economic opportunities for farmers and businesses, creating jobs and lifting rural economies, while also utilizing sustainable farming practices that are proven to help mitigate the threat of climate change. Organic provides a safe, healthy choice to consumers, who are increasingly seeking out the trusted USDA organic seal on the food and products they purchase for their families.

We look forward to working with Congress and Members of this Committee to advance organic in the 2023 Farm Bill. Thank you for the opportunity to provide feedback to inform Federal farm policy. I'm happy to address any of your questions.

The CHAIR. Thank you very much for that.

Ms. Smith, please begin when you are ready.

STATEMENT OF BRIE REITER SMITH, VICE PRESIDENT, PRODUCT LEADERSHIP, DRISCOLL'S, INC., WATSONVILLE, CA; ON BEHALF OF SPECIALTY CROP FARM BILL ALLIANCE

Ms. SMITH. Can you hear me?

The CHAIR. Yes, we can.

Ms. SMITH. Perfect. Okay, thank you for the opportunity to appear before you on behalf of Driscoll's and the Specialty Crop Farm Bill Alliance. Mr. Panetta covered some of this, but I am going to stick to the script because I am a bit nervous. So at Driscoll's I am

the Vice President of Product Leadership. My team authors the 5 year strategic plans for each berry type, conventional and organic. These plans are allocated to hundreds of independent farmers who grow, pick, and pack our proprietary varieties of strawberries, raspberries, blackberries, and blueberries.

Driscoll's generally cools, handles, markets and sells the fruit, and then we split the proceeds with our growers. In addition to our farm in Chile, my husband and I also grow blackberries in Watsonville, California, where my family has been growing berries for over 125 years. My grandfather was one of the founders of Driscoll's. In addition to our home State of California, Driscoll's berries grow in Florida, Georgia, North Carolina, New Jersey, Oregon, and Washington.

Specialty crop production in the United States accounts for \$66 billion in farmgate value, about $\frac{1}{3}$ of all farm crop cash receipts. The specialty crop industry has changed tremendously to satisfy consumer demands, adapt to new technology, and compete in an increasingly global marketplace. We want to raise the importance of specialty crops today not simply as one more sector of the ag economy but as an important source of food to every American.

The specialty crop industry is united to advocate for a common set of priorities as Congress prepares to reauthorize the farm bill. A broad coalition of more than 120 specialty crop organizations known as the Specialty Crop Farm Bill Alliance represents the whole of the fruit, vegetable, and tree nut industry. The alliance has formed working groups covering each title of the farm bill, along with additional working groups to evaluate cross-title policy recommendations. Over the coming weeks, these working groups will evaluate existing farm bill programs and consider new policy proposals. The alliance will then form a single set of recommendations representing the collective views of the specialty crop industry.

I would like to highlight some of the programs our industry is currently using, as well as preview some areas of interest that are likely to come forward during the policy development process.

Research: The farm bill provides our industry with vital tools to address our substantial research needs. Our industry includes hundreds of crops, each with unique challenges, and the demand for funding under these programs consistently outstrips available dollars.

Trade: Farm bill programs both promote the export of America's specialty crops and help prevent unwanted plant pests from accompanying imported specialty crops. In an increasingly competitive global marketplace, these programs are more important than ever.

Nutrition: The farm bill authorizes the government to purchase and then donate a variety of non-price-supported commodities, including fruit, vegetable, and tree nut products, through USDA's domestic nutrition and food assistance programs. These donations help vulnerable Americans to eat a healthy diet and avoid hunger while also helping to balance supply and demand for various commodities in our sector. The importance of these programs was definitely magnified during COVID.

Natural resource management: The specialty crop industry strongly supports USDA's working lands conservation programs.

However, payment limits and eligibility requirements constrain the fruit and vegetable sectors' ability to access important benefits of these programs. As the produce industry moves forward with our farm bill recommendations, we want to work with the Committee to develop creative solutions that preserve policy objectives of these limitations while allowing us to participate fully in USDA's conservation programs. Addressing these impediments will only become more important as we work together to address climate change.

Disaster and crop insurance: The specialty crop industry has increasingly been impacted by natural disasters across the United States. The West has experienced the longest and deepest drought in some places in all recorded history. Producers across the South have been hammered by extreme weather events. Additionally, COVID severely disrupted our supply chains for retail and food service customers. These recent experiences have prompted our industry to re-examine risk management and commodity support programs.

And a final thought regarding labor. While I know this issue is not directly in the jurisdiction of this Committee or within the traditional parameters of the farm bill, I need to mention the ongoing and increasingly urgent need to address labor issues. While agriculture plays the critical role in maintaining a safe and secure food supply vital to our national security, a flourishing agricultural industry is crucial to the strength of rural America. Agricultural producers across the country need a legal and stable workforce to continue feeding American families.

Thank you for this opportunity to speak to you about the specialty crop industry, and I welcome any questions you may have. [The prepared statement of Ms. Smith follows:]

PREPARED STATEMENT OF BRIE REITER SMITH, VICE PRESIDENT, PRODUCT LEADERSHIP, DRISCOLL'S, INC., WATSONVILLE, CA; ON BEHALF OF SPECIALTY CROP FARM BILL ALLIANCE

Thank you for the opportunity to appear before you today on behalf of Driscoll's and the Specialty Crop Farm Bill Alliance.

At Driscoll's, I am the Vice President of Product Leadership. My team and I are responsible for the 5 year strategic plans for each berry type (strawberries, raspberries, blackberries, and blueberries) and each field type, meaning conventional and organic, in the Americas. Essentially, this is building supply (acres, varieties, growing practices, regions) to meet projected demand. The central plan for each berry is ultimately divided and allocated to hundreds of independent growers in our network who grow, pick, and pack our proprietary varieties. Driscoll's generally cools, handles, markets, and sells the fruit and then we split the proceeds with our growers. My husband, Brian, and I also grow blackberries in Watsonville, California, where my family has been growing berries for more than 125 years. My grandfather was a founder of Driscoll's. In addition to our home state of California, Driscoll's berries grow in Florida, Georgia, North Carolina, New Jersey, Oregon, and Washington. We have winter production in the U.S., Mexico, and South America for U.S. consumers, and farmers grow Driscoll's berries in Europe, Africa, Australia, New Zealand, and China to supply fresh fruit to consumers in those markets as well.

Specialty crop production in the United States accounts for \$66 billion in farmgate value which translates into about 33% of all farm crop cash receipts. The specialty crop industry has gone through tremendous change to satisfy consumer demand, adapt to new technology, and compete in an increasingly global marketplace. This is why we raise the importance of specialty crops today—not simply as one more sector of the agricultural economy, but as an important source of food to every

American. We hope specialty crops garner fair consideration and prioritization in each Congressional district as you develop the 2023 Farm Bill.

The specialty crop industry is united to advocate for a common set of priorities as Congress prepares to reauthorize the farm bill before it expires in 2023. A broad coalition of more than 120 specialty crop organizations, known as the Specialty Crop Farm Bill Alliance, represents the whole of the fruit, vegetable, and tree nut industry in the United States. The Alliance works to form common objectives that transcend different regions, commodities, and other interests, to support this vital source of food for American families. Driscoll's is a member of several specialty crop associations which in turn are members of this Alliance. I can assure you that the produce industry stands ready to work closely and collaboratively with Congress on the next farm bill.

Toward that end, the Alliance has formed working groups covering each title of the farm bill along with some additional working groups to evaluate cross-title policy recommendations. Over the coming weeks, these working groups will evaluate existing farm bill programs and consider new policy proposals on a wide range of topics throughout the farm bill. The Alliance will use this work product to form a single set of recommendations representing the collective views of the specialty crop industry.

I would like to highlight some of the programs our industry is currently using as well as preview some areas of interest that are likely to come forward during the policy development process.

Research

The farm bill provides our industry with vital tools to satisfy our diverse and expansive research needs. Through a combination of specific programs like the Specialty Crop Block Grant Program, the IR-4 program for pest management, and the Specialty Crop Research Initiative, along with other USDA resources, our industry is able to address research concerns of all shapes and sizes.

The produce industry is using Federal research dollars today to address pests and diseases and better prevent and respond to multiple types of food safety hazards across dozens of crops in multiple farming regions. We are also increasingly looking to Federal research programs to identify and develop technology for automation and mechanization. We access research funding to improve organic production, plant breeding, and enhance crop characteristics to improve yield under increasingly challenging climatic conditions.

Our industry includes hundreds of crops each with unique challenges.

As you can imagine, the demand for funding under these programs consistently outstrips available dollars.

Trade

Farm bill programs both promote the export of America's specialty crops and help prevent unwanted plant pests from accompanying specialty crops imported into the United States.

While the fruit and vegetable industry is not the primary user of the Market Access Program, many of our crops successfully use this program to gain access to foreign markets. In addition, our industry has used the Technical Assistance for Specialty Crops program to help American producers overcome technical barriers to trade imposed by foreign countries to exclude American made products from their markets.

Nutrition

The farm bill authorizes the government to purchase and then donate a variety of non-price supported commodities, including fruit, vegetable, and tree nut products, through USDA's domestic nutrition and food assistance programs. These donations help vulnerable Americans to eat a healthy diet and avoid hunger, while also helping to balance supply and demand for various commodities in our sector. During the COVID crisis those programs were used to help remove excess product from the system and provide a vital source of food to those in need.

Natural Resource Management

The specialty crop industry strongly supports USDA's conservation programs. They help producers across the country to better and more efficiently use our nation's natural resources, and for our industry's growers, these voluntary conservation programs help address a myriad of obstacles. For example, in my home state of California programs like the Environmental Quality Incentives Program (EQIP) provide critical assistance to upgrade irrigation systems and improve the efficiency of on-farm water usage, which is critical in the arid West.

Although we support these working lands conservation programs, payment limits and adjusted gross income eligibility requirements have a disproportionate impact upon the fruit and vegetable sector and our ability to access the important benefits of these programs. Our crops typically have a much higher cost of production, and hence return on investment, than other agricultural sectors. As the produce industry moves forward with our farm bill recommendations, we want to work with the Committee to develop creative solutions that preserve the policy objectives of these limitations while allowing this vital sector of the agricultural economy to participate fully in USDA's conservation programs. Addressing these impediments will only become more important as we work together to address climate change.

Disaster and Crop Insurance

And speaking of climate change, the specialty crop industry has increasingly been impacted by natural disasters across the United States. In my home region in the Western United States, we have seen the impacts of the longest and deepest drought, in some places, in all of recorded history. The West has not been alone in facing natural disasters over the last few years with producers across the South also being hit. In addition to natural disasters, our industry was impacted when COVID severely disrupted our supply chains for retail and food service customers.

These experiences, along with USDA grower assistance programs for trade and COVID initiated since the last farm bill, have prompted our industry to examine risk management and commodity support programs in a new light.

One aspect of the farm bill that the specialty crop industry looks to in times of disaster is the crop insurance program. Although many in the perennial crop industry growing trees and vines participate in Federal crop insurance, these risk management tools have not been embraced by the field produce sector. With few products available and even fewer that can be deemed "modern" in design, we will want to work with the Committee and USDA on ways to improve crop insurance to attract a larger percentage of the field produce industry—which represents the majority of specialty crop acres.

A Final Thought Regarding Labor

While I know this issue is not directly in the jurisdiction of this Committee or within the traditional parameters of the farm bill, I would be remiss if I did not mention the ongoing and increasingly urgent need to address labor issues. Agricultural producers across the country need a legal and stable workforce. Not only is agriculture's role in maintaining a safe and secure food supply vital to our national security, it is critical to the strength of rural America.

Without immigration reform, growers across the country will eventually face the predicament of closing operations or moving them abroad. These are not theoretical discussions. Growers struggle to secure the labor they need which means they gamble every year on getting enough labor to harvest crops or they make the choice to plow under the food they have grown for lack of labor.

The House passed a bipartisan immigration reform bill recently and I urge you to reach out to your colleagues in the Senate to take action. Closer to home I suspect that the specialty crop farm bill alliance will approach this Committee looking to see how the farm bill could be used to address labor needs in whatever ways this Committee can.

Thank you for this opportunity to speak to you about the specialty crop industry. I welcome any questions you may have.

The CHAIR. Thank you very much for your testimony, and I am sure we will have questions for you and the other witnesses.

Mr. Oshima, please begin when you are ready.

STATEMENT OF MARC OSHIMA, CO-FOUNDER AND CHIEF MARKETING OFFICER, AEROFARMS, NEWARK, NJ

Mr. OSHIMA. Chair Plaskett and Ranking Member Baird, thank you for the opportunity to speak about the significant role of both urban agriculture and controlled environment agriculture, also known as CEA, for the upcoming 2023 Farm Bill. I am Marc Oshima, Co-Founder and Chief Marketing Officer for AeroFarms, the leader in indoor vertical farming. I am also the Board Chair for the CEA Food Safety Coalition and a member of the FDA Romaine

Advisory Task Force and the International Fresh Produce Association's Grower-Shipper Council.

The U.S. imports $\frac{1}{3}$ of its vegetables and nearly $\frac{2}{3}$ of its fruit, and COVID-19 and now the war in Ukraine have put an even bigger spotlight on how fragile our food system is. We need new paradigms to help us build even greater food resiliency and security. CEA is one of these new paradigms and includes high-tech greenhouses and indoor vertical farms growing nutritious crops like leafy greens, tomatoes, cucumbers, peppers, and berries. CEA farms can be placed where the consumers are, helping cut out a complex supply chain and nourishing local communities all year round with fewer resources.

Since 2004, AeroFarms has been leading the way for indoor vertical farming with a mission to grow the best plants possible for the betterment of humanity. We can grow with up to 95 percent less water and 99 percent less land compared to traditional farms while using zero pesticides ever. We unlock plant science even further through having a totally controlled environment independent of sun, season, and weather. We use our knowledge of plants to be great farmers and then apply these capabilities to solve water challenges in agriculture. Our global headquarters are in Newark, New Jersey, with additional farms underway in Danville, Virginia, the St. Louis region, and overseas in Abu Dhabi, UAE. Our award-winning produce is found throughout the U.S. at top retailers and food service companies, and we are scaling rapidly to meet demand.

While leading with technology, we are also leading with a strong commitment to our communities. AeroFarms is a certified B Corporation with a transparent scorecard in environmental and societal factors by creating year-round jobs with fair wages and benefits. We have partnered with the New Jersey Reentry Program providing jobs to those previously incarcerated and offer second-chance opportunities. And to date, we have probably hired over 100 team members through this program.

We also create impact through our community farms where we install small indoor vertical farms in community centers, municipal buildings, and schools like Phillips Academy Charter School in downtown Newark, New Jersey, where we have had a working farm for over 10 years right in their dining hall, changing the students' eating habits.

AeroFarms has also helped to lead the broader industry by partnering closely with USDA. We are one of the founding companies for the Foundation for Food & Agriculture Research Precision Indoor Plants Consortium where we are working on next-generation crops. We also are one of the founding companies for the CEA Food Safety Coalition that has worked closely with FDA and CDC on the safety benefits of growing indoors.

The U.S. is leading agriculture innovation around the world, but we can do even more. We encourage you to promote competitive R&D programs so we can maintain a technological edge that favors innovation and partnership here rather than abroad. The upcoming 2023 Farm Bill offers a big opportunity to ensure that the entire agriculture industry, both rural and urban, is represented and provide innovative pathways for the future of farming. We believe

there are opportunities to do this in nearly every title, including nutrition, credit, rural development, and energy.

For today, we will focus on two key areas. First, within the Horticulture Title, we see an opportunity to expand the Local Agriculture Market Program and the Farmers' Market Promotion Program to include urban, CEA, and indoor vertical farming practices. Second, within the Research Title, we support increasing overall funding for the Urban, Indoor and Emerging Agriculture Production Research, Education, and Extension Initiative.

The 2023 Farm Bill is also an opportunity to incentivize innovation and create a level playing field. We can no longer afford to think of agriculture as exclusively rural or business as usual, but we need to create the fair market conditions that enable true progress and innovation. We should factor these considerations into our true cost of food and use policy to drive positive behavior establishing incentives for things like water conservation and land protection, and creating taxes to disincentivize the overuse of pesticides and fertilizers that create runoff and land degradation.

Fair competition also extends to labor and enforcing Federal minimum wage and benefits. We have the opportunity to raise performance standards and incentivize the right behavior that will be good for the industry, the environment, society, and the economy.

In closing, at AeroFarms we are proud to be leading through innovation to help elevate agriculture. Urban farming, CEA, and indoor vertical farming are about creating local jobs and increasing access to healthy produce all year round, but the impact that we can have on the broader agriculture industry is even greater. We are grateful for American leadership here and know how much more we can achieve if the 2023 Farm Bill is made to work for the entire industry.

Thank you for your time and consideration, and we look forward to addressing any questions. Thank you.

[The prepared statement of Mr. Oshima follows:]

PREPARED STATEMENT OF MARC OSHIMA, CO-FOUNDER AND CHIEF MARKETING OFFICER, AEROFARMS, NEWARK, NJ

Introduction

Chair Plaskett and Ranking Member Baird, thank you for the opportunity to speak to you today about the significant role of both Urban Agriculture and Controlled Environment Agriculture also known as CEA in the upcoming 2023 Farm Bill.

Biography

I am Marc Oshima, Co-Founder and Chief Marketing Officer for AeroFarms, the leader in indoor vertical farming. During my career, I have headed marketing for leading food retailers like *The Food Emporium* and *Citarella Gourmet Markets* and am passionate about improving our food systems and making them more sustainable and equitable. I am also the Board Chair for the *CEA Food Safety Coalition* and a member of the *FDA Romaine Advisory Task Force* and the International Fresh Produce Association's *Grower/Shipper Council*. I am honored to be here today.

Controlled Environment Agriculture

The macro pressures of a growing population, drought, loss of arable land, food safety and recalls, overuse of pesticides, farmer welfare, and food waste are challenging traditional agriculture more than ever. The United States imports 1/3 of its

vegetables and nearly ⅔ of its fruit,¹ and COVID-19 and now the War in Ukraine have put an even bigger spotlight on how interdependent and fragile our food system is. We need new paradigms to help us build a more resilient and secure food ecosystem here at home and around the world.

CEA is one of these new paradigms and includes high-tech greenhouses and indoor vertical farms like AeroFarms, growing key nutritious crops like leafy greens, herbs, microgreens, tomatoes, cucumbers, peppers, and berries. CEA farms can be placed where the consumers are, helping cut out a complex supply chain and ensuring a steady source of produce all year round. Other key positive advantages can include better quality, use of less water and land, no pesticides, year-round local job creation, addressing food deserts, and minimizing food waste. For indoor vertical farming specifically, we unlock plant science even further through having a totally controlled environment.

AeroFarms—Technology and Innovation

Since 2004, AeroFarms has been leading the way for indoor vertical farming with a mission to grow the best plants possible for the betterment of humanity. Our proprietary technology and innovation platform allows us to grow plants layer upon layer indoors, without sun or soil, and without any seasonal climate restriction. We can grow with up to 95% less water and 99% less land compared to traditional farms, while using zero pesticides, fungicides, herbicides, or insecticides ever. As a result, we are able to set higher standards for environmental stewardship and food safety. We also decrease the distance between food production and consumption, by building farms right where the people are in both urban and rural environments. We do all this by integrating a deep understanding of plant biology, mechanical design, environment controls, data analytics, operations, and plant genetics. We use our knowledge of plants to be great farmers and then apply these capabilities to solve broader challenges in agriculture.

Our global headquarters are proudly in Newark, New Jersey, with additional farms underway in Danville, Virginia, the St. Louis region, and overseas in Abu Dhabi, UAE. We have an extensive pipeline of farm development nationally and globally, and we are scaling to meet demand. Today, our award-winning produce is found throughout the country at top retailers and food service companies, and shoppers prize our high quality because it is more nutritious and flavorful. Our breakthrough work has been recognized with over sixty awards since 2011, including *TIME Best Inventions* and *Fast Company's World's Most Innovative Companies*. AeroFarms was also the inaugural winner of the *Global Sustainable Development Goals Awards* in the category of *Zero Hunger*.

AeroFarms—Social Impact

While leading with technology, we are also leading with a strong commitment to our communities. AeroFarms is a Certified B Corporation with a transparent scorecard on environmental and societal factors like creating year-round jobs with fair wages and benefits. We have partnered with the New Jersey Reentry Program where we were recognized in 2020 for our work providing jobs to those previously incarcerated and offering second chance opportunities for not just a job, but for dignity and well-being. We are extremely proud of this program and have hired over one hundred team members over the years.

We also create impact through our Community Farms program where we install small indoor vertical farms in schools and community centers. We have had one of our first Community Farms for over 10 years at the Philip's Academy Charter School in downtown Newark, NJ, where we collaborated with teachers to educate students about food literacy and agriculture and were able to actually change behavior to eat more healthy greens. Building on this success, we also launched the first ever municipal indoor vertical farming program with the City of Jersey City and the World Economic Forum's Healthy Cities and Communities initiative where we are placing ten farms throughout the community to provide access to healthy produce and help alleviate the stresses of food deserts.

Industry Leadership

AeroFarms has also helped lead the broader industry by partnering closely with USDA, including with the National Institute of Food and Agriculture (NIFA), the Agriculture Research Services (ARS), and the Small Business Innovation Research (SBIR) program where we have been the recipient of both Phase 1 and Phase 2, grants given our positive results. Over the last 6 years, we have had the opportunity

¹ <https://www.ers.usda.gov/data-products/foreign-agricultural-trade-of-the-united-states-fatus/u-s-agricultural-trade-data-update/>.

to speak at three *USDA Annual Outlook Forums*, including the last two, to share what is next in AgTech technology and innovation. We have worked closely with the Foundation for Food and Agriculture (FFAR) specifically on our ability to optimize leafy greens for nutrition and flavor. We were also one of the founding companies for their *Precision Indoor Plants (PIP) Consortium* where we work on next-generation crops and are the Principal Investigator for optimizing lettuces for indoor growing. AeroFarms was also one of the founding members of the CEA Food Safety Coalition that has developed a third-party certification standard and worked closely with the FDA and CDC to educate how indoor growing can provide a safer environment for growing food, with fewer food safety issues, compared to the field.

Urban Agriculture and Federal Farm Programs

The United States is at the forefront of leadership in agriculture innovation around the world. We encourage our lawmakers to promote competitive research and development programs domestically, so we can maintain a technological edge that favors innovation and partnership here, rather than abroad. Given the tremendous growth and need for CEA, support would include providing greater attention to these modern methods like CEA in Federal agriculture programs.

Federal policy and regulation have historically placed an emphasis on “rural” requirements for beneficiaries, for example, discounting the benefits that CEA can have in both rural and urban areas. Current guidelines also generally appear to support family ownership structures, carrying provisions such as personal guaranties of owners. We are supportive of more forward-looking provisions that can benefit modern approaches to agriculture with further potential for investment and job creation in our local communities.

Recommendations for the 2023 Farm Bill

The upcoming 2023 Farm Bill reauthorization offers an enormous opportunity to ensure that the entire agriculture industry is represented and provide innovative pathways for the future of farming in this country. We have studied the farm bill and believe there are opportunities to do this in nearly every title, including the sections on nutrition, credit, rural development, and energy. For today’s hearing, we will focus on the following suggestions to two specific areas.

- First, within the Horticulture Title, we see opportunity to expand the Local Agriculture Market Program (LAMP) and Farmers['] Market Promotion Program (FMPP) to include Urban, Controlled Environment Agriculture and Indoor Vertical Farming practices
- Second, within the Research Title, we support increasing overall funding for the Urban, Indoor, and Emerging Agricultural Production, Research, Education, and Extension Initiative.

These expansions would help encourage competition, while promoting the technology and innovation that forms the bedrock of our national ethos and is necessary to feed the growing population.

Other Opportunity Areas

The 2023 Farm Bill is an opportunity to incentivize innovation and create a level playing field. We can no longer afford to think of agriculture as exclusively rural or business as usual, but we need to create the fair market conditions that enable true progress and innovation. We live in a time with fewer available resources. We should factor these considerations into our true cost of food and use policy to drive positive behavior, establishing incentives for things like water conservation and land protection and creating taxes to disincentivize the overuse of pesticides and fertilizers that create runoff and land degradation. Fair competition also extends to labor and enforcing Federal minimum wage and benefits so that workers can earn a fair income and agricultural employers are no longer put at a disadvantage because of farmers who may pay below the minimum wage. A final area of reform concerns consumer welfare. We support all food producers, including small hyperlocal growers, to be held to the same food safety standards as larger scale growers with no exemptions, to help protect the health of American consumers and ensure a level playing field. The farm bill has the opportunity to raise performance standards and incentivize the right behavior that will be good for the industry, the environment, society, and the economy.

Closing

At AeroFarms, we are proud to be leading through innovation to help elevate agriculture in the United States and around the world. Urban farming, CEA, and vertical farming are about creating local jobs and increasing access to healthy produce all year round, but the impact that we can have on the broader agriculture

industry is so much more. We are grateful for American leadership here and know how much more we can achieve if the 2023 Farm Bill is made to work for the entire industry. We owe it to ourselves and the generations to come.

Thank you for your time and consideration.

Additional Content for Written Submission

AeroFarms is led by Co-Founder and CEO David Rosenberg, a clean-tech champion, who won the 2021 *3BL Responsible CEO of the Year Award*. As a member of the World Economic Forum, David co-founded and co-chaired the *Young Global Leaders Circular Economy Taskforce* and was a member of the World Economic Forum *Global IoT Council*. David was also a member of the U.S. delegation to the *B20 Sustainable Food System Taskforce*, which advises the G20. David was also honored to co-chair New Jersey Governor Phil Murphy's *Agriculture Transition Committee*.

EXHIBITS

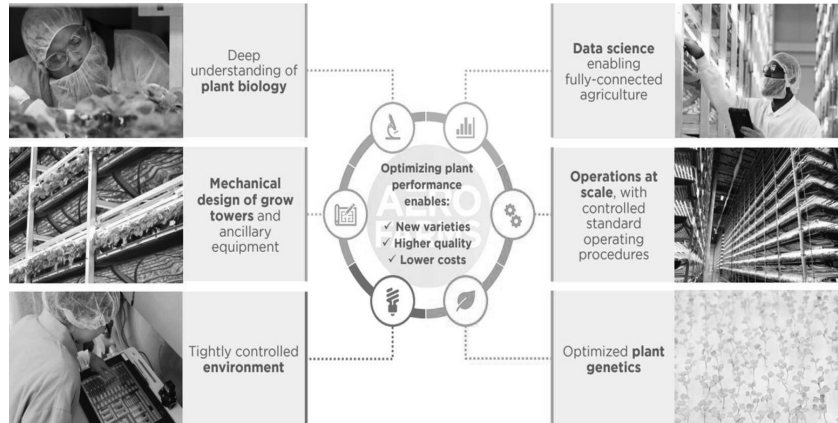
AeroFarms Indoor Vertical Farming Global Headquarters, Newark New Jersey



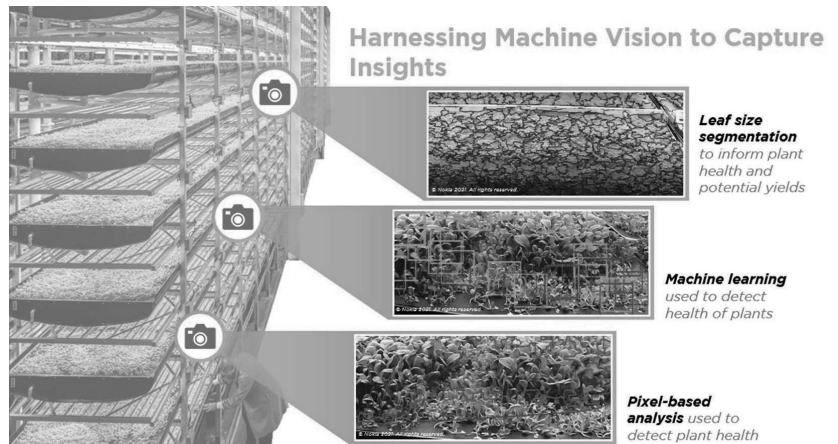
AeroFarms Commercial Indoor Vertical Farm, Danville Virginia



AeroFarms Vertically Integrated Across All Disciplines of Controlled Environment Agriculture



AeroFarms Leading with Latest in Machine Vision and Machine Learning



AeroFarms Community Farm at Philips Academy Charter School in Newark, NJ



AeroFarms Community Farms in Jersey City New Jersey



The CHAIR. Thank you. The next witness will be Dr. Olive. Dr. Olive, you are recognized for 5 minutes.

**STATEMENT OF NATHANIEL "NATE" OLIVE, PH.D., OWNER/
OPERATOR, RIDGE TO REEF FARM; CO-FOUNDER AND
PRESIDENT, VIRGIN ISLANDS FARMERS ALLIANCE, INC.,
FREDERIKSTED, ST. CROIX, USVI**

Dr. OLIVE. Thank you. Good morning, Members of Congress, supportive staff, fellow testifiers, and the listening public. It is an honor to be here, truly. I am Nate Olive, and I am owner/operator of Ridge to Reef Farm, certified organic on St. Croix, and the President of the Virgin Islands Farmers Alliance. I am here today to share my own experience as well as that of other farmers from my area, as best as I can, in navigating Federal support in farming in the U.S. Virgin Islands. I sincerely hope that my input can help make a difference in improving the quality of life for farmers in the territory.

So I will start by telling you a little bit about the farm, although Delegate Plaskett did such a wonderful job that I don't have to say much about the Virgin Islands Farmers Alliance. Our mission as a farm is to help reverse the trend of food import dependency, which is greater than 98 percent for our Territory, through ecologically regenerative and culturally appropriate agricultural practices. We grow over 100 varieties of organic fruits and vegetables, and we also have pastured sheep and hogs that are not certified organic due to the lack of available, cost-effective, organic-certified feed sources.

The Virgin Islands Farmers Alliance is a grassroots domestic nonprofit with the purpose of providing a unified voice for farmers in the Territory. We have over 100 members across the Islands of St. John, St. Croix, and St. Thomas. And together, we coordinate farm-to-school activities, along with other co-marketing activities, conduct production research under a USDA Sustainable Agriculture Research Education Grant, and will be establishing a food hub storage facility for alliance members with the support of World Central Kitchen soon. We are very excited about that.

So as we meet today, there is a soaring demand and a broad base of support for agriculture in the Virgin Islands to rejoin the economic development of the Territory, but there are many challenges here that remain, largely due to our small population and land area, our distance from the mainland, and relatively large local government. Our insular geography greatly creates higher farm input costs in every way in comparison to our import market competition. Nearly all farms here are considered small farm operations, and the economic rules of efficiency and scale continue to work against us. So today, we are trying to find our footing, and like other rural areas, we can't reach our optimal potential without special considerations and support through the farm bill.

So now I am going to tell you about a few of the programs under the farm bill that we at Ridge to Reef Farm are engaged in. First of all, I say that we are not taking part in the Specialty Crop Block Grant Program because it is geared toward beginning farmers here in the Territory in this round, but we look forward to future rounds. And one of the most effective programs here has been the in NRCS EQIP conservation program. We have used this to dig wells, erect livestock fencing, establish rainwater catchments for irrigation, construct a high tunnel for tomato and cucumber produc-

tion. Many other farms have utilized this important program for similar purposes.

Some problems with the program are the reimbursement nature that makes it out of reach for a lot of small farms here without the capital to put up the money, the multiyear time frame that it takes from application to execution and reimbursement, and the cost-share. Costs here are higher than some of the cost-share figures that are anticipated. We end up, it is supposed to be 90 percent for some of the things. We only get 60 percent of the cost covered here in our special situation in the Virgin Islands.

Second, the USDA disaster recovery assistance program such as debris removal, the tree replacement program, those are instrumental—the fencing program, those are instrumental for many farmers, including Ridge to Reef Farm, after the disastrous effects of Hurricanes Irma and Maria in 2017, so thank you so much for that support. I would not be here talking with you without that. So that has been huge.

And another program that we are involved in is the Value-Added Producer Grant. We were the first in the Territory to receive that some years ago for a planning grant for agroforestry for our fruit share program.

Fifth, as I mentioned above, we participate in the federally funded Farm-to-School Program since it started in 2014 here in the Territory. And so we serve as an aggregation hub for the other farms. We send crops every week that are gathered by over 15 farms to the central school warehouse, and we would like to see a greater oversight in the award of the contracts so that they go to local farmers and not to import farmers to protect our market here, and that is why we formed the Virgin Islands Farmers Alliance to speak up mainly for that need, among others.

Other programs that we are participating in here is the NAP, the Non-insured Crop Disaster Assistance Program, after the hurricanes, the Livestock Forage Disaster Program, which we have had a lot of droughts in the past years. That has been important. The geographic disadvantaged farmer program, which helps cover some of the import extra costs but is not enough. And the USDA Rural Energy for America Program where we upgraded our solar. And there is more that I could list. But there is a complete list in my testimony that is submitted.

So a few suggestions that I have are to increase funding to farms directly instead of channeling through larger distributive local government programs; and two, to increase capacity of our local USDA offices to offer more on-farm support and grant writing help. As mentioned before by Ms. Moffitt, a lot of producers have difficulties with all the paperwork, and it is very preventative to engage in these programs, so we need more help from our office on that, and we would like them to get more support.

To raise the expected cost for EQIP conservation practices so that they are covering the actual cost of what it takes to get it here and install in the Virgin Islands. To remove barriers of program participation by removing the reimbursement nature of many programs like the EQIP and the Hurricane Disaster Programs, which we couldn't complete the fencing and other things because after the hurricanes we had no income to put up the—

[The prepared statement of Dr. Olive follows:]

PREPARED STATEMENT OF NATHANIEL "NATE" OLIVE, PH.D., OWNER/OPERATOR, RIDGE TO REEF FARM; CO-FOUNDER AND PRESIDENT, VIRGIN ISLANDS FARMERS ALLIANCE, INC., FREDERIKSTED, ST. CROIX, USVI

Good day, Members of Congress, supportive staff, fellow testifiers, and the listening public. My name is Nate Olive and I am an owner/operator farmer at the USDA certified organic Ridge to Reef Farm on the island of St. Croix. I am also the elected President of the Virgin Islands Farmers Alliance (VIFA). I am here today to share my own experience as well as that of other farmers from my area in navigating Federal support of farming in the United States Virgin Islands. Where appropriate I will also attempt to elucidate a little of the relevant experience of my other fellow farmers to the best of my ability and knowledge. I sincerely hope that my input can help make a difference in improving the quality of life for farmers in the U.S. Virgin Islands and beyond. I share the belief that a strong focus on building capacity of small and medium sized farms in our territory is ultimately the only way in the long run to strengthen and sustain a viable, secure, and sovereign local food system.

I will start by telling you a bit about Ridge to Reef Farm, our VI Farmers Alliance, and the general state of agriculture in the Virgin Islands from the farmers' perspective. Next, I will share some relevant experiences with Federal programs that fall under the USDA farm bill. Finally, would like to share a few suggestions that may help improve the Federal support of farmers in small insular rural areas like the Virgin Islands.

First, Ridge to Reef Farm is the only USDA certified organic farm on over 100 acres in the Virgin Islands and is among the most productive. Our mission is to help reverse the trend of food import dependency, which is greater than 98%, for our insular territory, through ecologically regenerative and culturally appropriate agricultural practices in the region. For 12 years we have maintained a diverse planting regime of over 100 varieties of organic fruits and vegetables. We also raise pasture-raised sheep and hogs that are not certified organic due to the lack of available cost-effective organic certified feed sources. Like all farms currently in the territory we grow for our local markets. Our primary markets include market stands, supermarkets, a Community Supported Agriculture membership program, and the territory's Farm to School program for which we serve as a multi-farm aggregation hub under contract with the VI Department of Education. In addition to crop sales we participate in agritourism activities such as tours, farm to table dinners, and the hosting of volunteer groups for farm stays, which are significant value-added part of our educational outreach and financial sustainability.

Next, the Virgin Islands Farmers Alliance (VIFA) is a grassroots domestic non-profit founded in 2018 and incorporated in 2019 to provide a unified voice for farmers in the territory. We started off as a collective of five professional farmers who regularly work together for the federally funded Farm to School program. After losing contracts created for our local market to foreign producers, we realized we had to band together to protect, advocate, and educate for our common local agricultural interests. Today we have over 100 members including farmers, farm family members, rising farmers, and farm supporters across the three major Virgin Islands of St. Croix, St. Thomas, and St. John. Together we coordinate Farm to School deliveries among other co-marketing activities, test various vegetable seed varieties under a Sustainable Agriculture Research and Education (SARE) grant, and will soon be establishing a food hub storage facility for Alliance members with the support of World Central Kitchen's Food Producer Network.

As we meet today, the state of agriculture in the U.S. Virgin Islands is again in its toddler phase. Agriculture was recently reborn here decades after the island shifted away in the 1960s in a top-down effort from an agrarian society towards heavy industry. At that time sugar cane was the central crop produced among many other speciality crops and grass-fed Senepol beef grown for local consumption and for export. After that period of time, small local farms could no longer compete with increasing low cost imports and most farms closed for good. Yet in the past 20 years, demand for locally produced fresh foods has steadily risen. Now, demand is soaring as price points and consumer demand have leveled out. There is a broad base of support for agriculture to rejoin the economic development of the Virgin Islands. Yet many challenges remain, largely due to our small population and land area, a relatively large local government that lends to a favor-driven political environment, and our insular geography that greatly increases farm input costs in every way in comparison to our import market competition. Nearly all farms here are considered small farm operations and the economic rules of efficiency and scale continue to

work against us. So today, local agriculture in the VI is energetically trying to find its footing so that it may mature into the grown-up industry that our people require. But like other insular rural areas, it cannot reach its optimal potential without special considerations of support through the farm bill.

Now, I will address our experience with USDA Farm Bill related programs:

First, one of the most effective programs has been the NRCS' EQIP conservation program. At Ridge to Reef Farm, we have used this program to dig wells, erect livestock fencing, establish rainwater catchments for irrigation, and construct a high tunnel for tomato and cucumber production. Many other farms have utilized this important program for similar purposes. The problems with the program are (1) the reimbursement nature of the program which is out of reach for most VI farmers. Even though there is a chance to get some of that money up front, it requires a short project completion deadline which is not feasible for projects that require significant input imports such as construction materials, (2) the multi-year timeframe from project application to approval for implementation, and (3) the anticipated cost-share ends up being a much lower percent because our costs are exponentially higher. For example, our high tunnel was supposed to be 90% but it ended up being around 60% of the Federal anticipated implementation value from higher shipping and construction costs common in the continental U.S.

Second, USDA disaster recovery programs such as debris removal were absolutely farm-saving after the impacts of hurricanes Irma and Maria in 2017—Thank you! I would not be speaking to you today without this program. Unfortunately, however, our farm was unable to complete the fencing recovery and fruit tree replacement programs that we were approved for. This is because we were unable to front the cost after being economically devastated by the disasters and did not have the means to pay up front for an unknown period of processing and eventual Federal reimbursement. The other complicating aspect was that producers were largely kept in the dark by the USDA about what disaster recovery costs would be reimbursed and at what rate. Without knowing complete program details including cost details, farmers were exposed to the risk of acquiring debt that we may not have reimbursed. Therefore, much of the funds made available for disaster recovery for us were left under utilized.

Third, while Ridge to Reef Farm is USDA certified organic, we remain the one and only in the territory. While it seems like a strong niche position, we would rather have more company for partnerships. The costs of establishing and maintaining organic certification is drastically higher on island territories and needs greater support in cost-share programs than what currently is offered. We simply would not be certified today without the Federal cost-share program which saves us \$750 a year on program related costs, which total approximately \$2,000 annually plus the unvalued administrative hours on our small farm. The primary reason for low participation in organic is geographic, since inspectors must travel by air and receive accommodations, meals, ground transportation, and other related costs.

Fourth, we were the first farm in the USVI to be awarded a Value-Added Producer Grant. This grant was to create expand our agroforestry plan into fruit shares on our CSA program. We received the grant to write a planning grant. After completing that project we were later denied the implementation grant and but we plan to reapply.

Fifth, as mentioned above, we participate in the federally funded Farm to School Special nutrition program since it started in 2014. We send crops every week that are gathered from local farms to the central school warehouse. We see a need for greater oversight on the award of these contracts to ensure that locally grown crops are given preference and contracts are executed with integrity.

Some other relevant programs that we have participated in are:

- Non-insured Crop Disaster Assistance Program (after 2017 hurricanes)
- Livestock Forage Disaster Program (usually drought related)
- Geographically Disadvantaged Farmer program (needs a boost, helpful but inadequate)
- USDA Rural Energy Program

Finally, I would like to share a few humble suggestions to strengthen the farm bill for farmers in insular areas:

- (1) Increase funding directly to farms instead of channeling through the local government. Be careful of funding that creates completion with the existing farming community with our small population.

- (2) Increase capacity of our local USDA offices to provide more on-farm support and grant writing/program application assistance. Also, reduce the amount of paperwork required from farms to participate.
- (3) Raise the expected costs for EQIP conservation practices so that cost-share percentages are on par with the rest of the country
- (4) Remove barriers of program participation by removing the reimbursement nature of many programs such as EQIP and hurricane disaster programs.
- (5) Establish a means for farmers to get individual health insurance policies, which are currently unavailable.

Thank you for your attention and support in promoting better food production in the USVI and other insular areas faced with the same challenges. I am happy to answer any questions you may have.

Sincerely,

NATHANIEL "NATE" OLIVE, Ph.D.

The CHAIR. Dr. Olive?

Dr. OLIVE. Yes.

The CHAIR. You have gone way over your time.

Dr. OLIVE. Okay, great.

The CHAIR. If you want to close out, and we will ask questions.

Dr. OLIVE. Yes, that is it. Thank you for your attention, and I appreciate it. I will yield back.

The CHAIR. Thank you. The last witness, Mr. Kettler, you are recognized for 5 minutes.

STATEMENT OF BRUCE KETTLER, DIRECTOR, INDIANA STATE DEPARTMENT OF AGRICULTURE; SECOND VICE PRESIDENT, NATIONAL ASSOCIATION OF STATE DEPARTMENTS OF AGRICULTURE, INDIANAPOLIS, IN

Mr. KETTLER. Good morning, and thank you, Chair Plaskett and Ranking Member Baird, for the opportunity to speak today. I really appreciate it.

My name is Bruce Kettler, and I serve as the Director of the Indiana State Department of Agriculture. I have over 30 years of leadership experience in the agriculture industry with knowledge of production agriculture, sales, and the agriculture supply businesses. Prior to joining ISDA, I spent 11 years at Beck's Hybrids and 17 years at Dow AgroSciences where I worked in a variety of roles, including sales, marketing, and public and industry relations.

In addition to my role as Director at ISDA, as Representative Baird mentioned, I also serve as the Second Vice President for the National Association of State Departments of Agriculture or NASDA. NASDA is a nonpartisan, nonprofit association that represents the elected and appointed commissioners, secretaries, and directors of the Departments of Agriculture in all 50 states and four U.S. Territories, including the U.S. Virgin Islands, Madam Chair. NASDA grows and enhances American agriculture through policy, partnerships, and public engagement.

I would first like to recognize the importance of the Agriculture Improvement Act of 2018. The 2018 Farm Bill was a unified bipartisan bill that secured a commitment to American farmers and ranchers while protecting the critical food and nutritional assistance programs for those who need it most. As I interact with farmers, our agricultural supply businesses, and industry leaders in Indiana, the word *uncertainty* keeps coming up time and time again.

It has replaced the word *resiliency* that was so often used during the pandemic.

Uncertainty sends chills down the spines of farmers as they attempt to make critical business decisions. Uncertainty impacts families in need of assistance with putting food on the table. And uncertainty disrupts the food supply chain, as we witnessed throughout the pandemic.

As the House Committee on Agriculture begins these hearings for the 2023 Farm Bill, it is vital that Congress provide certainty by delivering a forward-looking, fully funded farm bill and on time. If the pandemic and the recent events unfolding in Ukraine have taught us anything, it is that this farm bill and all future farm bills are an issue of national security.

State Departments of Agriculture play a critical role in food and agriculture policy in the United States. As regulators and advocates for the agricultural industry, NASDA's voice is unique between the nexus of the states and the Federal Government. NASDA members lead in areas ranging from food safety to resource conservation and promote agriculture locally and abroad.

As the state regulators and co-regulators with Federal agencies, NASDA members are actively involved in ensuring the safety of an abundant food supply, protecting animal and plant health, implementing conservation programs, and promoting the vitality of rural communities. In a time of increased risk and challenges for the agriculture industry, Federal legislation and regulations should work to promote economic stability while guaranteeing a safe and accessible food supply. This work must be a joint venture between the states and Federal Government. Looking forward, NASDA calls for a renewed commitment to cooperative federalism. It is critical that this partnership between states and the Federal Government recognizes and enhances the role of states in Federal policymaking.

In my written testimony submitted to the Committee, there are additional comments about Specialty Crop Block Grants, invasive species, the Food Safety Modernization Act (Pub. L. 111-353) and food safety education, the FIFRA Interagency Working Group, hemp, urban agriculture, and the Local Agriculture Marketing Program.

Agriculture producers, the rural economy, and communities of every size rely upon a forward-looking and fully funded farm bill. The farm bill must provide farmers and ranchers with a reliable safety net. The farm bill must provide consumers access to the safest and most affordable food supply. The next farm bill must remain unified, securing a commitment to American agriculture and critical food and nutrition assistance programs for those who need it most. In short, the next farm bill is an issue of national security.

Thank you for the invitation to address the Subcommittee today, and I look forward to answering your questions.

[The prepared statement of Mr. Kettler follows:]

PREPARED STATEMENT OF BRUCE KETTLER, DIRECTOR, INDIANA STATE DEPARTMENT OF AGRICULTURE; SECOND VICE PRESIDENT, NATIONAL ASSOCIATION OF STATE DEPARTMENTS OF AGRICULTURE, INDIANAPOLIS, IN

Good morning and thank you, [Chair] Plaskett and Ranking Member Baird, for the opportunity to speak today. My name is Bruce Kettler and I serve as the Director of the Indiana State Department of Agriculture (ISDA). I have over 30 years of

agricultural leadership experience and knowledge of production agriculture, sales and agriculture supply businesses. Prior to joining ISDA, I spent 11 years at Beck's Hybrids and 17 years at Dow AgroSciences where I worked in a variety of roles including sales, marketing and public and industry relations.

Indiana is the tenth largest farming state in the nation, and we have more than 56,000 farms. While our top commodities are corn, soybeans, livestock and dairy, we grow many specialty crops as well. We are #2 in popcorn, #3 in tomatoes, #4 in pumpkins and peppermint and #5 in watermelon.

In addition to my role as Director at ISDA, I also serve as the Second Vice President for the National Association of State Departments of Agriculture (NASDA). NASDA is a nonpartisan, nonprofit association that represents the elected and appointed commissioners, secretaries, and directors of the departments of agriculture in all fifty states and four U.S. Territories. NASDA grows and enhances American agriculture through policy, partnerships and public engagement.

As the state regulators and co-regulators with Federal agencies, NASDA members are actively involved in ensuring the safety of an abundant food supply; protecting animal and plant health, implementing conservation programs; and promoting the vitality of rural communities.

I. Introduction

As we begin today's hearing, it is important to first recognize the importance of the Agriculture Improvement Act of 2018 (2018 Farm Bill). The 2018 Farm Bill was a unified, bipartisan bill that secured a commitment to American farmers and ranchers, while protecting the critical food and nutritional assistance programs for those who need it most.

"Uncertainty" sends chills down the spine of farmers as they attempt to make critical business decisions. "Uncertainty" impacts families in need of assistance with putting food on the table. "Uncertainty" disrupts the food supply chain as we witnessed throughout the pandemic.

As the House Committee on Agriculture begins hearings for the 2023 Farm Bill, it is vital Congress provides "Certainty" by delivering a forward-looking, fully funded farm bill, on time. If the pandemic and the recent events unfolding in Ukraine have taught us anything, it is that this farm bill, and all future farm bills are an issue of national security.

II. Cooperative Federalism

State Departments of Agriculture play a critical role in food and agriculture policy in the United States. As regulators and advocates for the agriculture industry, NASDA's voice is unique in the nexus between the states and the Federal Government. NASDA members lead in areas ranging from food safety to resource conservation and promote agriculture locally and abroad.

In a time of increased risk and challenges for the agriculture industry, Federal legislation and regulations should work to promote economic stability while guaranteeing a safe and accessible food supply.

This work must be a joint venture between the states and Federal Government. Looking forward, NASDA calls for a renewed commitment to Cooperative Federalism. It is critical this partnership between states and the Federal Government recognizes and enhances the role of states in Federal policymaking. Due to the importance of Cooperative Federalism in advancing agriculture, we promote the following principles:

1. Advancing the role of states—as co-regulators and not simply stakeholders—in the Federal regulatory process
2. Ensuring Federal legislation reflects the unique role states serve in implementing Federal legislation
3. Increasing flexibility for state program delivery
4. Enhancing resources for states and no unfunded mandates
5. Supporting the roles and respecting the authorities of states.

III. Specialty Crop Block Grants

We at the Indiana State Department of Agriculture have administered the Specialty Crop Block Grant Program (SCBGP) since its inception in 2006 and we appreciate that the law gives this role to the states. Some of the program's greatest successes have been research focused in partnership with our land-grant university, Purdue. One such example is Dr. Krishna Nemali's 2017 project "Research-Based Extension Education Program for Increased Year-Round-Profitability in Hydroponic Lettuce Production" that was funded through the Specialty Crop Block Grant Program. Hydroponics are a specialized, expanding and capital-intense cropping system

and many Indiana growers lack access to training and updated research on this production method. This project conducted research on varietal trials, developed nutrient management strategies, and helped understand the effects of root-zone heating and supplemental lighting on profitability. In addition, the extension element of the program supported an annual Hydroponics Workshop and supported the development of educational materials for growers.

While the Specialty Crop Block Grant Program is effective in enhancing specialty crops throughout the state and nation, it is not without its challenges. One difficulty our team faces every year is answering the question, "What is a specialty crop?" The current definition is broad and creates confusion on which crops make the cut. Sunflowers are one example. As an oil crop they are deemed ineligible, but there is no guidance on if they are eligible within the category of cut flower products. The USDA list is helpful but not all-inclusive and sometimes it creates more questions than answers.

Another challenge of the program is finding proposals that meet the parameters laid out by USDA concerning increasing market access and promoting increased sales. Sometimes the goal is to simply sustain markets that might otherwise be declining. Often the best applications for funding are those from large universities who have grant writing resources, and these proposals are almost all tailored towards research or education. While this is important work, we see a need for both maintaining and enhancing market access for our specialty crop industry. Smaller groups and businesses are often the ones proposing market access projects but due to a lack of staff or experience with grants, they either don't apply or struggle to pull together a quality application. These organizations have the knowledge and ideas that would benefit their local specialty crop industry, but they don't have the same access to the program. We ask that the Committee consider allowing USDA to direct funds to be used for technical assistance for the grant application process, and that the grant parameters be expanded to address the current and future needs of the industry.

NASDA recommends increasing funding for the SCBGP while ensuring a flexible, locally responsive and state-led program.

IV. Invasive Species

Invasive species concerns vary from state to state and every year, new outbreaks of invasive species are found in the U.S. They threaten all types of crops as well as forestry, livestock, human health, and the environment. It's estimated that invasive species cost the U.S. economy \$21 billion per year, with agriculture being the sector hit hardest. In Indiana for example, the spotted lanternfly was recently discovered in Switzerland county. Our state has expended numerous resources to ensure it doesn't continue to spread and wreak havoc on our vineyards, orchards and hardwoods industry.

While many Federal and state programs are in place, the level of resources needed to combat the problem is nowhere close to being able to adequately deal with the issues at hand. NASDA has a long history of supporting and advocating for the Federal Government's role in preventing, eradicating or controlling invasive species and diseases. They also promote Federal-state cooperation leading towards the expansion of states efforts to identify, respond to, eradicate and control invasive pests and diseases. These collaborative efforts come through access to mandatory funding through the CCC, as well as pursuing discretionary appropriations for Federal and state early detection and rapid response programs, risk-based programs, emergency management, support for research and survey advancements and funding for management and control options.

NASDA supports an increase in baseline funding for the highly successful Plant Pest and Disease Management & Disaster Prevention Program and the National Clean Plant Network to provide additional tools for domestic invasive species issues. Bold action is needed to mitigate and prevent invasive species' catastrophic impact to farmers and ranchers.

V. FSMA and Food Safety Education

Our current food safety regulatory system is the shared responsibility and partnership between local, state, and Federal Governments. The Food and Drug Administration (FDA) is responsible for ensuring that domestic and imported food products are safe, sanitary, nutritious, wholesome and properly labeled. While FDA has primary authority in the food safety network, there is an entire system of complementary state and local laws working in harmony to protect our national food supply. Because all problems exist locally first, states often act as a lookout for emerging issues and can rapidly respond, often before such issues rise to the level of national concern, and before FDA takes action.

State Departments of Agriculture are the front line of protection for consumers when it comes to food safety. To support FDA's mission, the statute recognizes the necessity for Federal-state cooperation allowing state agencies to assume primary responsibility for the actual inspections, enforcement, training, and carrying out a wide range of other food safety regulatory activities. For example, FDA contracts with states to monitor medicated animal feeds and to investigate incidents of pesticide or drug residues in foods. Approximately 80 percent of domestic food safety inspections in the United States are completed at the state and local level.

Currently, 46 states, including Indiana, and one Territory have entered into cooperative agreements with the FDA to educate and/or regulate farms subject to the law based on a framework NASDA developed through its agreement with FDA. This model of "educate before and while you regulate" has been extremely effective in Indiana in bringing farms into compliance with the Food Safety Modernization Act (FSMA). NASDA also developed an OFRR program to foster a dialogue between the farmer and the regulator and/or educator about the requirements of the Produce Safety Rule. The program develops a cooperative relationship between the grower, educator and regulator and is helpful not only in implementing the Produce Safety Rule but also beneficial with responding to a food safety outbreak.

I encourage the Committee to continue prioritizing outreach and education. In order to meet the prevention goal of FSMA, funding for this program and continuing education (such as for educating farmers on the recently proposed water rule) will be vital.

NASDA recommends the Committee provide resources to assist producers in complying with the Food Safety Modernization Act. There are several other priority areas that would advance food safety on the farm that state programs are involved in that we think should be funded. We are in the process of developing specific recommendations and will provide more details to the Committee once we finalize our recommendations.

VI. FIFRA Interagency Working Group

As agriculture continues to grow and change, it is more important than ever for farmers to have adequate tools in their toolbox. Therefore, we supported efforts in the 2018 Farm Bill to establish a Federal Interagency Working Group to address the interrelation between the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Endangered Species Act (ESA). The working group provides a formalized opportunity for the five designated member agencies to come together to identify needed improvements to the ESA, with considerations in place for pesticide regulation. Ultimately, this collaboration provides a unique opportunity for EPA to implement FIFRA more effectively and efficiently, with science-based research and collaborative input. As we hear from farmers, growers and industry members every day, this type of collaboration and opportunity for improvement is needed in a world of ever-changing technologies and supply chain disruptions.

As the Committee considers additional oversight and legislation to further these goals, the Indiana State Department of Agriculture along with NASDA believes it is important to emphasize to the Committee that most of the individual state departments of agriculture serve as co-regulators with Federal agencies on numerous Federal environmental statutes, including FIFRA and the ESA. Consistent with the objectives of cooperative federalism, states must be involved early and thoroughly in all listing, determination and other ESA regulatory procedures, as they are valuable resources for data and have a greater understanding of local landscapes. As regulatory partners, Federal agencies should seek state agency involvement and consultation as the National Marine Fisheries Service and the U.S. Fish and Wildlife Services work toward the ultimate goal of de-listing species.

As guidance to the Committee, NASDA has established a comprehensive policy on ESA modernization efforts outlined below:

- NASDA supports the goal of conserving threatened and endangered species. Any program must also preserve private property rights and allow for a balance between agricultural production and species conservation;
- NASDA believes listing and de-listing decisions must be based on reasonable scientific criteria and sound science. Further, any decision-making in the petitioning, determination and listing processes should acknowledge and analyze the economic impact to landowners and the surrounding community;
- NASDA supports a greater role for states in implementing and enforcing the Act. NASDA also supports greater partnership between the states and the Services on gathering species and habitat data, the petition and determination processes, preparation of recovery plans, identification of recovery areas, and subsequent de-listing;

- NASDA supports voluntary incentive-based agreements with landowners for captive propagation, species population support programs, and alternatives to listings. Landowners should receive certainty from the Services that their cooperation in endangered species protection will not result in increasing demands and regulatory prohibitions on their farming or ranching operation;
- NASDA believes that implementation of the ESA should consider overall watershed and landscape health as a primary goal in the context of threatened and endangered species;
- The listing, designation of critical habitat, and implementation of recovery plans must utilize and solicit landowner feedback and public comment. NASDA supports transparency and extensive public input on the ESA listing, de-listing, exemption and recovery processes. Also, NASDA believes the ESA must work towards de-listing species while working with landowners. NASDA also supports ESA reform that includes the above tenets;
- NASDA believes EPA and the Services must establish a collaborative, transparent and streamlined consultation process for pesticide registrations. The process should include clearly communicated criteria between EPA and the Services, be based on best available science and eliminate any duplicative steps. Any decisions made between EPA and the Services should not place unreasonable requirements on registrants and producers; and
- EPA and the Services must include adequate time and robust opportunities for input from state departments of agriculture, who regulate pesticides in most states, and other impacted stakeholders. Regulatory decisions should be made in a timely manner that allows affected parties meaningful participation while addressing regulatory certainty.

VII. Hemp

Hemp continues to be a growing industry in agriculture, and since its inclusion in the 2014 Farm Bill, we have seen continued market development and interest at the state and national levels. According to the USDA National Hemp Report released in February of 2022, there were 33,480 acres of hemp harvested in the United States last year, with an estimated value of \$824 million. But there are areas of opportunity to improve our nation's hemp policy to ensure the longer economic viability of hemp.

NASDA supports the growth of the hemp industry, and this includes advocating for hemp to be considered both a specialty crop and an agronomic commodity in the 2023 Farm Bill. Adding hemp to the list of eligible crops within the Specialty Crop Block Grant Program would encourage more research and market development and help lay a strong foundation for the industry to build on. Also, amending the definition of hemp to allow up to one percent (1.0%) THC would provide needed flexibility and ensure more product gets off the farm and into the hands of a processor.

VIII. Urban Agriculture

Urban agriculture plays a valuable role in many states, including Indiana. It is often an opportunity for producers in urban areas to be entrepreneurs while gaining experience and contributing to the local food system. NASDA supports increased opportunities for urban agriculture through a big tent approach where all forms of food and agricultural production are essential. While there exist challenges in developing urban agriculture, including access to land and capital, this type of food production can diversify individuals' income sources, mitigate food deserts, and support community as well as economic development. NASDA supports the Office of Urban Agriculture and Innovative Production at the U.S. Department of Agriculture as authorized by the 2018 Farm Bill.

IX. Local Agriculture Market Program

The NASDA Foundation¹ is part of a Community of Practice Coordinating Organization that works with the USDA Agricultural Marketing Service (AMS) in providing technical assistance support on Local Agriculture Market Program (LAMP) grant opportunities for black, indigenous people of color (BIPOC), rural and other underserved communities. NASDA Foundation hosted webinars to provide resources and information on how to apply to the Farmers Market Promotion Program (FMPP) and Local Food Promotion Program (LFPP) grants. It is through this work that the NASDA Foundation discovered that many black, indigenous people of color

¹NASDA Foundation is the only educational and research organization that directly serves state departments of agriculture in all 50 states and four U.S. territories. NASDA Foundation is a 501(c)(3) nonprofit organization that focuses on education, outreach and research that galvanizes the agricultural industry.

individuals and organizations are intimidated by the USDA application process for grant funding. Due to the time, it takes the individuals to learn and apply for grants; black, indigenous people of color businesses, indicated that they do not have the organizational capacity to go through the grant cycle process. A post-technical assistance survey found that more than 77 percent of BIPOC businesses did not apply for a LAMP grant despite receiving technical assistance, with a majority citing the application processing was both too daunting and time-consuming.

X. Conclusion

Agricultural producers, the rural economy, and communities of every size rely upon a forward-looking, and fully funded farm bill. The farm bill must provide farmers and ranchers with a reliable safety net. The farm bill must provide consumers access to the safest and most affordable food supply. The next farm bill must remain unified—securing a commitment to American agriculture and the critical food and nutritional assistance programs for those who need it most. The farm bill is an issue of national security.

The CHAIR. Thank you very much to all of our witnesses for your questions. We will now take witness questions from the Members in order of seniority, as we did with the first panel. And I will start with my questions first.

Dr. Olive, I wanted to ask if you would share with us which USDA local farm system programs and other USDA programs have been beneficial to your farm or to farms like yours in the Virgin Islands?

Dr. OLIVE. Yes, thank you. Well, like I mentioned in my testimony, I mean, one of the biggest things has been the NRCS EQIP Program, which is the Environmental Quality Incentives and conservation program. So that has been, it really helped build capacity in a sustainable way for our farm and a lot of other farms. As we know, water is a huge issue in the Virgin Islands for all the farms, especially on St. Thomas and other areas in St. Croix and St. John, so these ways to establish with the expertise of the USDA and to help fund some of that have been really instrumental in our success. And after the hurricanes, the support that we received in the disaster programs, we would have lost a lot of farms without those. So, I would say that EQIP is a regular thing, and then the disaster recovery was huge as well.

The CHAIR. We have talked in this Committee quite a bit about supply chain issues and how that has been magnified during the pandemic. In the Virgin Islands, that is really a fundamental issue that has affected us for many, many years. Can you speak to how we on this Committee might support insular areas or isolated areas that have real issues not only in terms of having the correct amount of supplies coming in but also the cost of that and what that means to farmers as well?

Dr. OLIVE. Thank you for asking. In these times with supply-chain shortages, the feeling that people have in the states about getting things and costs rising is our everyday reality in the Virgin Islands. That is how it has always been in the Virgin Islands. And now we even have an additional cost on all the inputs that go into our farm from fertilizers to irrigation equipment, seeds, tractor parts. You wouldn't believe what I paid to get a tractor tire shipped here recently.

So I think what could happen is there is the geographic disadvantaged program through the FSA that helps cover a portion of receipts that we submit every year, and that pool is divided between all the applicant farmers. I have stopped doing it because

the pool seems too small, and honestly, it is not worth my paperwork to do that, so we need a larger pool of money for that disadvantaged program.

And we also need help with some up-front stockpiling of things in some way so that they can be made available to farmers in a quick way because the thing with farming is a lot of things are very time-sensitive, and when you need something, you need it now and it takes so long to get here. That is another cost that is not overtly financial but it ends up being that way. So more dedicated funding to insular areas in the Virgin Islands and all the other insular areas around.

The CHAIR. Thank you. Ms. Batcha, the USDA is reportedly finalizing three key and much-anticipated organic industry regulations under the National Organic Program addressing: one, transitioning dairy cows; two, livestock handling and poultry living conditions; and oversight and enforcement of NOP-certified products. Some of these proposals date back to the mid-2000s. We are really excited that that is actually happening. What is the importance of USDA finally finalizing these National Organic Program regulations to the U.S. organic industry?

Ms. BATCHA. Thank you for that. I can't underscore how important it is that these three rules are finalized. The first we heard of this morning in terms of Origin of Livestock being finalized, and then the other two rules you mentioned. But additionally, there are almost two dozen additional rules still in the pipeline. I think the thing that is important to remember is oftentimes these rules, as of the case of the two livestock rules and the import oversight rule that was authorized in the last farm bill, these regulations level the playing field for producers, so they are all playing by the same rules. If you are entering the marketplace, you know that other farmers, regardless of where they are in the country or on the globe, are following the same set of standards, so you can understand what the marketplace is expecting from you, and it is a fair, level playing field.

I think the other important thing is that as these standards have languished at USDA, it has driven private certification into the market and required producers and handlers to seek additional certification on top of their organic certification, which complicates their production systems, adds costs, and confuses the value of the seal in the marketplace. And they are having to do that to compensate for the standards not having been finalized. It also stalls opportunities in innovation. So if the playing field is not level globally, it disincentives U.S. producers to enter the market and produce some of these important crops domestically in the case of livestock feeds and other grains. So it impacts farmers at a very granular level in terms of cost and the playing field globally and across the country, as well as innovation in the marketplace and advancing organics, so I appreciate your question. Thank you.

The CHAIR. Thank you. Thank you very much.

I now ask my Ranking Member, my colleague Mr. Baird, for his 5 minutes of questioning.

Mr. BAIRD. Thank you, Madam Chair.

Director Kettler, your testimony calls attention to NASDA's support for the growing hemp industry through additional support like

including hemp in the Specialty Crop Block Grant Program. So in your time as Indiana's Director of Agriculture, I have known you to be a formidable force in bringing hemp to Hoosier farms as a means of crop diversification. As you have traveled the State of Indiana and talked to Indiana farmers, what do you find to be the most needed to address the policy troubles of hemp production?

Mr. KETTLER. Thank you, Representative Baird. I think first and foremost I hear a lot of people say they want to be included as a specialty crop and have available things like Specialty Crop Block Grants. They feel that it is new. They need some help to be able to get it off the ground and, frankly, to try to find the new markets that those grants oftentimes help people with as well.

One of the things in my written testimony we talk about including it in the farm bill more generally from a crop insurance standpoint, obviously not the jurisdiction of this Subcommittee, but I think the Specialty Crop Block Grants and allowing it to become a specialty crop is pretty critical. And in Indiana we consider that part of the economic development opportunity, so trying to bring in processors and people that can add value to the crop is important as well.

Mr. BAIRD. Well, thank you. And continuing on, support for the land-grant universities is included in the Research Title of the farm bill, and I would be remiss if I did not mention the important role that these institutions play in conducting cutting-edge research and educating our next generation of agriculturalists. So can you talk more about the land-grant system and how you work with it?

Mr. KETTLER. Yes, I would be glad to. Probably one of the biggest ways is through that Specialty Crop Block Grant Program. There is typically four or five applications made for that program into ours, so they do a lot of work there. We also work with leadership, and within the extension service to do a lot of programs and help. A good example, farmers' stress, mental health, we are working with Purdue Extension Service on that. There is also a lot of cooperation within, in that case, the College of Agriculture at Purdue, but we are also looking for ways as a department to work with other schools within the State of Indiana that may have other specialties. I am thinking particularly in the conservation area where we can rely upon the works that Notre Dame is doing or IU is doing or other schools within the state and finding ways for them to all cooperate together, and I think that is pretty important because very often they have areas of specialization that allow them to be able to work together and deliver a better product in the end.

Mr. BAIRD. That always helps in the implementation when you have cooperation across that, and I am glad you mentioned the economic development aspect of that.

So, Ms. Batcha, would you care to elaborate about that same thing, about your working with the land-grant universities and how you see that?

Ms. BATCHA. Thank you. One of the important programs that supports organic production systems is the Organic Research and Extension Initiative Program, so those are important research dollars. We administer a nonprofit organization called the Organic Center that covers science and does invest directly in science at

universities, increasingly at land-grant universities, and we also play a role in helping connect organic agriculture researchers across universities to coordinate and discuss and share research priorities with each other.

We are really fortunate that this year for the first time we have been able to work with the Foundation for Food and Agriculture to provide some matching grants for industry investment in organic research focusing on land-grant universities, so thank you.

Mr. BAIRD. So we have about 20 seconds left if any other witness would like to address that in 20 seconds.

Mr. OSHIMA. I would be happy to talk about the work AeroFarms is actually doing with traditional land-grant universities. It is part of our bigger collaboration that we do with industry. We think it is critical as we are writing this new playbook in agriculture that we work closely and thinking about what is needed from a curriculum standpoint, a training standpoint, and thinking about this new science, machine vision, machine learning, a new way of farming, and so we work closely with the universities both in terms of that training and development but also on dedicated research and collaboration.

Mr. BAIRD. Thank you. I am out of time. I could spend the rest of the afternoon with all of you, but I guess the Chair probably wants me to yield back.

The CHAIR. Thank you. At this time I would ask Ms. Pingree for her 5 minutes.

Ms. PINGREE. Thank you very much, Madam Chair. I appreciate your holding this hearing. And I really appreciate all of the witnesses' testimony today. Thank you so much for spending your time with us and really helping us to think forward about the farm bill.

I won't have a chance to dialogue with all of you, but I just want you to know we really will take in everything that you have had to say today and it is very useful to all of us.

So for Laura Batcha, I am glad to be here with you today to celebrate finally that rule moving forward, and I know how important it is to organic dairy, so thanks for the work that the Organic Trade Association has done to also push on that.

We are talking so much about the convergence between climate change and agriculture, and that will certainly be an important component of the farm bill, but I would love to hear from your perspective, from organic growers how we make sure that people understand the connection between what organic growers really have already done in terms of climate change, the critical practices that are so foundational to organic certification, and also what else do you think the USDA could be doing to make sure we make that connection and really ensuring that organic farmers are rewarded for what they are doing as we go forward thinking about our programs?

Ms. BATCHA. First, I want to thank you for all your strong leadership and support on helping get that Origin of Livestock rule across the finish line, so we really appreciate your leadership.

The climate-smart agriculture discussion is interesting because now climate-smart agriculture has become such a buzz. And I think when you think about organic agriculture and the requirements of the production standard to include fostering soil, biodiversity, cover

cropping, hedgerows, green manures, these are many of the same practices that are being looked at as the key tools to advance climate-smart agriculture. And they are embedded in the standards, and they always have been.

We have a group of members in town this week, 150 folks from across the country, and one of our farmer members from Montana said yesterday to USDA that climate-smart is the new buzz but organic has always been soil-smart, and that is built into what the production practices are all about.

I think it is also important that as we look at, for example, the pilot program that USDA is launching right now, we also have a built-in market reward and claim in the marketplace that can be leveraged in terms of helping the public understand the choice that you make with organic and how that ties to climate-smart agriculture. I think the things we are hearing from producers about any programs related to climate-smart agriculture and making sure, number one, that the early adopters are also rewarded in the system, the folks who have been doing this all along. Our research shows that on whole, organically managed soils have about 17 percent higher levels of sequestered carbon than soils as a whole in farms across the country, so they need to be included in the program and rewarded for their efforts over the last number of decades.

I also think there needs to be really good crosswalks with oversight in the paperwork and the certification in the farm plans that are required in organic so that there can be streamlined qualification for programs that USDA may roll out so the farmers don't have to start over again and re-demonstrate their climate-smart status.

I think we also have some creative ideas that may require some support from the Committee in the next farm bill that could bring the USDA seal more into the future and allow that seal to communicate directly some of these values of organic production related to climate.

Ms. PINGREE. Great. Well, thank you for all of that. I look forward to working with you and certainly with organic farmers in general and making sure that all of the things that you mentioned are included.

I don't have a lot of time, but, Ms. Smith, I really appreciate that you brought up one of the biggest challenges that we hear about, and that is labor and farmworker shortages. In the 30 seconds that I have left, do you want to just address a little bit more about what a challenge you see that as and how we should be doing more to address it?

Ms. SMITH. Sure. I mean, every year we kind of plant a crop that we assume the American population will want to buy from us, and every year we don't have enough people to harvest the right fruit that we have spent all this money investing in to grow. And so what we ultimately end up doing is leaving behind fruit from the end of an application or the end of the variety and just moving onto the next one. So, we have been feeling the labor shortage for years, but the demand is there, and so it is something we wrestle with and would really appreciate some support on creating a legal and stable workforce.

Ms. PINGREE. Well, thank you for that. We look forward to really working with you in addressing that. And the very idea that you are leaving fruit behind in the field is horrific from a food waste perspective and feeding hungry people, and then also for so many farms just balancing the budget and making sure it all works. So I need to yield back, but thank you again, everyone, for your testimony. I really appreciate it.

The CHAIR. Thank you. At this time, I would like to invite Congressman Panetta for 5 minutes of questioning.

Mr. PANETTA. Great, thank you, Madam Chair, and thank you for having this hearing, and thanks to all of our witnesses, those who are here in the room, those who are here virtually. I appreciate your testimony and information. That will definitely be used as we head into the Farm Bill 2023.

Laura, Ms. Batcha, good to see you again, as always. Based on the question that you just answered, you talked a lot about streamlining the regulations, but also in your testimony you talked about infrastructure capacity improvements. Can you elaborate a little bit more on the supply chain improvements, what they would do, what they might look like, and how they would bolster the organic industry.

Ms. BATCHA. Thank you for that. Nice to see you as well. When a farm transitions to organic, they have to transition their whole farm 3 years or the portion of their farm that they are bringing into organic, but they also have to develop new markets for their products. And the organic product off the farm has to be handled in a certified organic facility all the way through to the finished product, so if they grow their product on the farm, they have to be able to move that through the processing infrastructure that the commodities touch.

One of the challenges with increasing the amount of organic production at the farm level in the U.S. is access to those markets, whether or not it be livestock processing, grain milling, handling facilities, and especially for the small- and medium-sized operations to have those facilities close enough to the farm that it makes the transportation and the management of that process reasonable. So we are really looking at a regional approach that is commodity-specific that really looks at some of the bottlenecks in the supply chain and invests there. But it is just a requirement of taking the product all the way through to the marketplace.

Mr. PANETTA. Great. Thank you for explaining that.

Moving on to Ms. Smith, in your testimony you spoke about crop insurance. Now, obviously we on the Central Coast, based on the amount of natural disasters that we have been dealing with, especially in the last few years and what we will probably have to continue to deal with from wildfires to the lack of water with our drought, what we have seen is the desire to use Federal Crop Insurance Program. However, we don't see them as prolific as I think many of our producers here on the Central Coast would like them to be. Can you elaborate on how we could improve the crop insurance program and better incorporate our producers on the Central Coast in those types of programs to be able to use those type of programs?

Ms. SMITH. Thanks for that question, Mr. Panetta. So, I am unclear on what qualifies or doesn't qualify for crop insurance, but what I can describe are a few events that have happened in recent history in the Central Coast where no one secured any funding from the Federal Government. So one of those things would be we had this massive hailstorm last year, tore down millions of dollars' worth of tunnel infrastructure intended to protect crops. The crops were severely impacted, and the crop insurance didn't help with that in any substantial way, so that has been a really big one. We have had some heat events that are really unprecedented in the late summer months here on the coast, and again, millions of dollars—

Mr. PANETTA. Let me interrupt you if I may and basically ask what has been your understanding as to why producers on the Central Coast don't engage in the crop insurance programs as much as they should?

Ms. SMITH. So I think we all are on the Central Coast because of how temperate the climate usually is, so it might be just a lack of understanding of what they qualify for. It might be that it is perceived as arduous to secure funding. I really don't know. But what I am trying to say is this is kind of new that we would even need crop insurance or have these regular issues substantially impacting our crop, Mr. Panetta, so I don't know if it is just education or if it is that somehow we are not all qualifying or what, but I am happy to explore it and get back to you.

Mr. PANETTA. No, that is great. Thank you. And briefly, obviously I understand that Driscoll's entered into a new agreement with the private company up in south San Francisco in regards to indoor farming. You want to elaborate on that and maybe Mr. Oshima might want to talk about that as well.

Ms. SMITH. Yes, I think a lot of what Mr. Oshima described is the reasons why controlled environment agriculture is exciting to Driscoll's as well. We are very excited about our partnership. I was there yesterday, and there are ripe strawberries in there, so it is exciting. I think it really hits the mark on accessibility, reduces the vulnerability to supply chain issues, so we are excited, invested, and looking forward to what is there. But we are really learning right now.

Mr. PANETTA. We all are. Thank you, Madam Chair. I yield back.

The CHAIR. Thank you. And I want to thank all of the witnesses that were with us both in the first and the second panel, and particularly I thank my colleagues who participated in the hearing, as well as the staff.

Before we adjourn today, I invite the Ranking Member to share any closing comments he may have.

Mr. BAIRD. Thank you, Madam Chair. The things that we have heard here today I think are very important to the farm bill in 2023. I am thinking about specialty crops from the standpoint of fruits and vegetables being located closer to the population. We heard about labor. We heard about how the farm programs might tie into these specialty crops. And so in my closing thoughts I would just like to say that I really appreciate Mr. Bruce Kettler being here today and having the opportunity to be with him, and I yield back.

The CHAIR. Thank you to the Ranking Member.

As we close, it is important to emphasize that the provisions included within the Horticulture Title were critical to supporting American producers through challenging times. The ability for producers in these sectors to leverage programs in the title to face the challenges posed by the COVID-19 pandemic proved essential. It is clear that, as a Committee, we must build on these successes in order to continue to support our agriculture community.

To our producer and stakeholder witnesses, USDA Under Secretary Moffitt, NRCS Chief Cosby, thank you so much for your testimony.

I want to particularly thank those individuals on the second panel who provided their own on-the-ground expertise doing the work every day to support farmers, support producers, and support Americans who are eating the produce that they bring to the table.

As we look ahead to the next farm bill, I look forward to taking this feedback in order to better address the needs of our producers and stakeholders. And it is my hope that the Members of this Committee can work collaboratively to be able to support and advance the interests of American agriculture.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplemental written responses from the witnesses to any question posed by a Member.

This hearing of the Subcommittee on Biotechnology, Horticulture, and Research is adjourned.

[Whereupon, at 12:08 p.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY TERRY COSBY, CHIEF, NATURAL
RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Insert 1

The CHAIR. Thank you. I may not have time, Chief Cosby, for you to be able to answer this, but any written response that you could give would be appreciated. As you are aware, the 2018 Farm Bill established the Federal Advisory Committee for Urban Agriculture and Innovative Production to, “advise the Secretary on the development of policies and outreach relating to urban indoor and other emerging agricultural practices.” I understand that the Federal Advisory Committee held its first public meeting last week and was hoping if you could share with the Committee in written format or at different points if you may have this during the questioning the details of that first meeting. So thank you very much for that.

The Urban Agriculture and Innovative Production Federal Advisory Committee (FAC) was established with 12 members selected by the Secretary representing the breadth of the stakeholder community as spelled out in the farm bill. The inaugural meeting of the FAC took place March 23 and 24, 2022. The meeting forum had 1,430 people registered to attend, and 184 people registered to provide comments during the public forum. Secretary Vilsack, Farm Production and Conservation leadership, and National Institute of Food and Agriculture (NIFA) officials participated in the first meeting, which was recorded and is available at <https://www.usda.gov/partnerships/federal-advisory-committee-urban-ag>.

During the 2 day meeting, the Committee consulted on NIFA’s \$10 million Urban, Indoor, and Emerging Agriculture funding opportunity. The Committee also gave feedback on a draft of the updated Urban Agriculture Toolkit prepared by the Office of Urban Agriculture and Innovative Production. Members were also briefed by Farm Service Agency (FSA) and Natural Resources Conservation Service (NRCS) on the plans to establish USDA urban service centers to facilitate providing USDA services to urban producers.

During the public forum, members of the public weighed in about urban areas needing access to clean soil and climate smart agriculture practices; urban producers needing access to land and supply channels to boost their income and establish sources of local food access; the need to modify the services available to rural producers to suit smaller farms with higher costs of production; and how the process of signing up to receive services from USDA could be improved to make it less burdensome so it is not a barrier to urban producers receiving USDA services.

Insert 2

Ms. BROWN. Well, thank you very much. I know I am nearing the end of my time, but I do have one other question. And that is that we know in 2018 the farm bill directed USDA to establish the Office of Urban Agriculture, which is currently housed in NRCS. How are you working internally within the agency and externally across agencies like the Department of HUD to grow urban agriculture? And with that, I would yield back. Thank you.

The CHAIR. Thank you. I would ask the witness if he could respond to that in writing as time has expired at this time.

Within the Natural Resources Conservation Service (NRCS), we are working to grow urban agriculture by updating practice standards and payment scenarios to be better suited to urban and small farms. NRCS has encouraged state leaders to create urban subcommittees in state technical committees and allows State Conservationists to create an Environmental Quality Incentives Program (EQIP) set aside for urban agriculture. NRCS has also been working with the Office of Urban Agriculture and Innovative Production (OUAIP) to prepare trainings for NRCS field staff on how to better serve urban and small farms.

OUAIP’s Interagency Advisory Committee (IAC) has over 60 members representing 15 USDA agencies and meets approximately every other month to collaboration and coordination of urban agriculture work across USDA agencies. The group shares best practices for updating programs and services to suit urban producers, seeks input from other USDA agencies on OUAIP priorities, and updates members on urban agriculture relevant work across the Department.

OUAIP regularly collaborates with the Office of the Chief Scientist and the USDA Food Loss and Waste Liaison to include its Composting and Food Waste Reduction cooperative agreement accomplishments into the national United Nation sustainable development goals to reduce food waste at retail and consumer levels by 50 percent by 2030.

OUAIP also has revived the USDA-wide People's Garden Initiative (PGI) to promote food producing gardens with an educational component and is collaborating with the Office of Tribal Relations on amplifying and supporting their Sovereignty Garden Initiative, which educates youth about traditional indigenous planting practices.

OUAIP also holds regular meetings with other Federal agencies like the Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) and to share information and leverage existing Federal initiatives as it sets up urban service centers across the country. OUAIP is engaging with HUD at the Federal and regional level to identify networks of local stakeholders that can help spread the word about USDA services that will be offered from urban service centers, discuss how HUD's Community Development Block Grant Program can be leveraged to support urban agriculture initiatives, how urban agriculture can fit into community revitalization initiatives, and how HUD can help USDA establish relationships with local and city officials in communities USDA does not have a history of working. OUAIP holds regular discussions with EPA about how their Brownfields Program can facilitate urban soil testing and remediation as well as how state-level EPA offices can assist the urban service centers being stood up by connecting local producers to soil testing services.

SUBMITTED LETTER BY INTERNATIONAL FRESH PRODUCE ASSOCIATION, *ET AL.*

April 7, 2022

Hon. STACEY E. PLASKETT,
Chair,
Subcommittee on Biotechnology, Horti-
culture, and Research,
House Committee on Agriculture,
Washington, D.C.;

Hon. JAMES R. BAIRD,
Ranking Minority Member,
Subcommittee on Biotechnology, Horti-
culture, and Research,
House Committee on Agriculture,
Washington, D.C.

Re: H.R. 2981, the Continuous Improvement and Accountability in Organic Standards Act

Dear Chair Plaskett and Ranking Member Baird,

The ability to continue to provide quality, affordable organic fresh produce is a priority for our organizations and the U.S. growers, packers, and shippers we represent. Today, we are alerting you to our strong concerns regarding the Continuous Improvement and Accountability in Organic Standards Act (H.R. 2918) in its current form.

Collectively, our organizations represent the majority of the fresh organic produce grown, harvested, packed, and distributed in the United States. We are strong supporters of the organic label, U.S. Department of Agriculture (USDA) National Organic Program (NOP) and actively participate in the National Organic Standards Board (NOSB) advisory committee process.

At the outset we want to acknowledge that the process by which organic standards are established can and should be improved upon. However, H.R. 2918 in its current form would make the process worse, not better. Specifically, this bill would further elevate the authority of the NOSB, a 15-person volunteer Federal advisory board, in establishing regulatory policy for a multi-billion-dollar industry—affecting tens of thousands of growers and millions of consumers. It is unrealistic to expect 15 volunteers to possess the expertise necessary to make informed public policy decisions regarding every production and handling method for every fresh fruit and vegetable grown across the country. Therefore, it is not surprising that throughout the history of the NOSB, appointees have largely not been representative of the broader organic fresh produce community. To illustrate our concern, in 2017, the grower appointees serving on the NOSB collectively represented less than 200 acres of organic production.

Congress recognized this when passing the Organic Food Production Act (OFPA) by making the NOSB an advisory committee and providing USDA with exclusive authority—following consultation with the U.S. Environmental Protection and/or U.S. Food and Drug Administration where appropriate—to set organic policy. If this bill were to become law in its current form, USDA would be required to justify—via rulemaking and in an expedited timeframe—agency's decisions regarding every recommendation of this voluntary advisory council, which the has limited scientific or production expertise and often a significant degree of advocacy bias.

USDA should not be forced to rush into regulatory action by, or be required to justify a decision to not act upon a recommendation from, an advisory panel. Government agencies are answerable to the public. Advisory panels like the NOSB are not.

We recognize that Federal advisory committees play an important role in shaping Federal policy. However, alarmingly, this bill would give the NOSB a role that goes far beyond advising USDA on policy, violates the spirit—if not the letter—of the Federal Advisory Committee Act (FACA). Title 6518 of OFPA states that the NOSB is subject to FACA, which is adamant that “the function of advisory committees should be advisory only, and that all matters under their consideration should be determined, in accordance with law, by the official, agency, or officer involved.”

FACA also emphasizes the importance of uniformity in the operation of advisory committees across both individual agencies and the government as a whole. This bill would place the NOSB in its own category among FACA’s serving Federal agencies—something we believe to be unwarranted and would result in unsound public policy.

The undersigned organizations do not oppose efforts to improve the process by which organic standards are established. We seek improvements to H.R. 2918, and are committed to working collaboratively with you and others to do so.

Sincerely,

International Fresh Produce Association
Fresh Produce Association of the Americas
Northwest Horticultural Council
Western Growers Association
U.S. Apple Association

CC:

H.R. 2918 Cosponsors.

SUBMITTED QUESTIONS

Response from Hon. Jennifer Lester Moffitt, Under Secretary for Marketing and Regulatory Programs, U.S. Department of Agriculture

Questions Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question 1. Under Secretary Moffitt and Chief Cosby, can you discuss the current nexus between horticulture and urban agriculture?

Answer. See Chief Cosby’s response below.

Questions Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question 1. As you know, Section 32 bonus buys are one of the most important tools in the toolbox to help specialty growers suffering from market imbalances. The goal of the program is to first help farmers and second support Federal feeding programs including school lunch and breakfast as well as food banks. We have heard from some commodity organizations that the timeline from when the request is made to AMS to when the product is purchased from the growers can in some cases take months if not close to a year. We are concerned that the program has grown unnecessarily bureaucratic in recent years as the Agricultural Marketing Service (AMS) negotiates with other agencies across the Department to quickly approve these requests. Can you provide the following information about the Section 32 Bonus Buy Program?

Answer. USDA utilizes Section 32 funds to assist industries impacted by market disruptions and other factors that create an oversupply situation and to encourage the consumption of these products among persons in low-income groups, largely through The Emergency Food Assistance Program (TEFAP).

The Section 32 approval process is as follows:

1. Industry representatives request a purchase under Section 32 authority or AMS economists identify possible oversupply situations and initiate contact with industry representatives.
2. AMS economists conduct an economic analysis of the specific commodity’s market to independently verify the existence of a market problem. AMS’ assessment is also verified by USDA’s Office of the Chief Economist.

3. If the economic determination justifies a need (*i.e.*, a surplus of product), AMS works with the Food and Nutrition Service (FNS) to determine pack sizes and timeframes in which product can realistically be distributed.
4. AMS submits a request package through the clearance process for final approval by the Secretary.
5. If approved, AMS announces the program and works with FNS to implement.

During the Section 32 request approval process, AMS works closely with industry, FNS, and the Agency's technical experts to design a purchase program which will accomplish the goals of the program to remove product from the market in a timely manner and to feed hungry Americans.

Question 1a. Average timeline from when the bonus buy request is submitted to when the commodities are purchased? In the event where this timeline is over 6 months, please provide justification for such a delay.

Answer. There are many factors that affect the timeline from when the bonus buy request is submitted to when the commodities are purchased. First, data must be available to conduct the economic analysis, and there are situations where obtaining this data from industry has taken some time. Second, if the product requested is a new product, specifications must be developed that meet the industry need and ensure competition among producers, as well as provide a product that TEFAP recipients can effectively distribute and utilize. Finally, the approval process can be made complicated when two or more industry representatives make requests that are inconsistent, and AMS must reconcile the differences before the approval process can begin. Delays in Section 32 purchase decisions can occur for a variety of reasons, however, AMS generally strives to process a Section 32 request from receipt of the request to announcement of a purchase within a 1 to 2 month period. We are not aware of a timeline that exceeded 6 months.

Question 1b. Steps the Agency is taking to ensure over-supply challenges in specialty crop markets are being addressed in a timely fashion.

Answer. AMS economists maintain good working relationships with many suppliers and industry groups for the purpose of understanding and monitoring market conditions throughout the year. These relationships have resulted in a more proactive process by which the economists identify possible oversupply situations and initiate contact with industry representatives. Additionally, AMS consistently communicates to industry representatives the critical need to connect early and often if an oversupply situation is anticipated, so the process can begin in a timely fashion to meet their needs.

Question 1c. How decision-making authority is granted between AMS and FNS on when and where to purchase specialty crops through the Section 32 Bonus Buy Program.

Answer. AMS has the authority to initiate and execute a Section 32 bonus purchase upon approval from the Secretary. AMS works closely with FNS to determine the pack sizes and timeframes in which product can realistically be distributed to TEFAP recipients. Once approved, FNS collects orders from TEFAP state agencies, and AMS conducts all procurement activity.

Question 1d. How the Department factors in demand for bonus buy purchases and what weight is given to demand factors *versus* farmer/grower support.

Answer. Farmer/grower support is a critical factor in the Section 32 purchase program. However, TEFAP recipients must be able to distribute and utilize the product effectively, and decisions regarding pack sizes (smaller pack sizes preferred) and delivery timeframes are based on demand from those TEFAP recipients.

Question 2. As domestic specialty crop producers are growing increasingly vulnerable to cheaper foreign imports, what is the Department doing to harness the resources of the Federal Government to support them? How is AMS working both with other agencies and Mission Areas within USDA and outside the Department, such as through USTR, to ensure specialty crop producers have the full support of the Federal Government to reverse this trend? What gaps do you see in existing Federal programs that should be addressed in the upcoming farm bill that would better utilize existing resources?

Answer. One of the ways that USDA is supporting domestic specialty crop producers is the Local Agriculture Marketing Program (LAMP), which is authorized under the Agricultural Improvement Act of 2018 (Farm Bill) (Pub. L. No. 115-334). The Agricultural Marketing Service (AMS) administers three of the four programs authorized under LAMP: The Farmers Market and Local Food Promotion Programs (FMLFPP) and the Regional Food System Partnerships (RFSP) program. In 2021, USDA invested \$90.2 million through 203 grant projects to help local and regional food entities strengthen and explore new market opportunities for U.S. food and ag-

ricultural products, including but not limited to specialty crops. The Rural—Business Cooperative Service, under Rural Development, implements Value-Added Producer Grants, which helps agricultural producers enter value-added activities to generate new products, create and expand marketing opportunities, and increase producer income.

AMS also administers the Specialty Crop Block Grant Program (SCBGP) to enhance the competitiveness of specialty crops. The below links provide additional information on the Fiscal Year 2021 SCBGP awards: *

*Specialty Crop Block Grant Program Fiscal Year 2021 Description of Funded Projects—Farm Bill (usda.gov)*¹

*Specialty Crop Block Grant Program FY21 Grants to the States (usda.gov)*²

The Fiscal Year 2022 Request for SCBGP applications closed on May 3, 2022. AMS expects to announce awards by the end of September 2022.

In addition, AMS announced the approval of nearly 20 specialty crop Section 32 requests, including for fresh grapes, fresh and frozen peaches, fresh nectarines, fresh plums, raisins, dried sweet cherries, almonds, and great northern beans for Fiscal Year 2022. From Fiscal Year 2018 to Fiscal Year 2021, AMS supported domestic specialty crop producers through purchases of over 6.4 billion pounds of specialty crops valued at \$5.9 billion. All AMS purchases for domestic and international nutrition assistance and food aid programs must be 100% grown and processed within the United States or its territories.

AMS works closely with the Food and Nutrition Service (FNS) on all of these purchases. For example, AMS partnered with FNS to introduce a mixed fresh produce product for food banks in The Emergency Food Assistance Program in Fiscal Year 2021, purchasing nearly 20.0 million pounds of various fresh specialty crops valued at \$13.0 million.

USDA stands ready to work with the Committee on identifying the best utilization of resources for the specialty crop sector as you deliberate the 2023 Farm Bill.

Response from Terry Cosby, Chief, Natural Resources Conservation Service, U.S. Department of Agriculture

Questions Submitted by Hon. Bobby L. Rush, a Representative in Congress from Illinois

Question 1. Chief Cosby, could you provide me a detailed orientation on the phenomenon of urban agriculture in our country, including what the USDA is doing to optimize urban agriculture?

Answer. First, I will start by sharing that this is not a recent phenomenon. In fact, the first organized urban agriculture effort supported by the United States Government occurred during the Panic of 1893, a serious economic depression that caused high unemployment and distress on farms. As a relief measure the Mayor of Detroit, Hazen Pingree, formed an Agricultural Committee and tasked them with finding vacant lots for citizens in need of food assistance to grow their own food. In 1894, 975 families grew potatoes, beans, squash, cucumbers and more on 430 acres of 'Pingree's Potato Patches'. The produce they grew that year was valued at \$14,000 which is equal to \$438,225 today. By the 1900s, economic conditions in the country improved and the program tapered off.

Throughout the following years Americans have turned to urban agriculture during times of war and economic stress to feed themselves and their communities. In recent years, urban agriculture has been revived by communities facing food related illness and food insecurity. Today urban agriculture is influenced by many considerations, including sustainability, environmental stewardship, food security and accessibility, community empowerment, and cultural diversity. The current urban agriculture movement is still using vacant lots for food production, but it has also expanded to hydroponics, aquaponics, container gardening, rooftops, and commercial food production.

No two urban production systems are the same, but urban agriculture operations are often characterized by intensive management strategies (many different fruits and vegetables produced each season), less automation with more labor performed by hand, and controlled environments (*e.g.*, high tunnels, low tunnels, hydroponics, shipping containers, nurseries, container gardens, *etc.*), highly diversified cropping rotations, and small footprints (.05–.25 acres).

* **Editor's note:** the linked documents are retained in Committee file.

¹ <https://www.ams.usda.gov/sites/default/files/media/SCBGPDescriptionofFunds2021.pdf>.

² https://www.ams.usda.gov/sites/default/files/media/2021_SCBGP_GrantstotheStates.pdf.

Many urban production systems are also social enterprises. They support the triple bottom line: people, profit, and the planet—they are striving to produce food to feed their communities. Food sovereignty and food justice are frequently at the heart of these operations.

Over the years, NRCS has taken steps to improve conservationist's ability to serve urban and small acreage clients. NRCS had its first urban conservation district in Washington, D.C. in 1962. Other efforts were also made through programs like Resource Conservation and Development (RC&D) and urban conservation action plans in the 1990s and early 2000s. In 2010 the agency adopted high tunnels as a conservation practice standard to address issues with excessive wind and sun and provide season extension options.

The Conservation Stewardship Program offers a \$1,500 annual minimum payment, facilitating small and urban producers' participation in programs.

USDA is working to support urban agriculture through the Office of Urban Agriculture and Innovative Production (OUAIP). OUAIP's Interagency Advisory Committee (IAC) has over 60 members representing 15 USDA agencies and meets approximately bimonthly to collaborate and coordinate the urban agriculture work across USDA agencies. OUAIP also recently stood up a Federal Advisory Committee to give the Director of OUAIP and Secretary Vilsack advice on better serving urban producers.

To demonstrate USDA's commitment to serving urban producers, NRCS and the Farm Service Agency (FSA) are working together on plans to open new brick and mortar urban service centers in several locations selected for pilot Urban County Committees (UCOCs). FSA and NRCS have been working with local stakeholders and local USDA staff to identify locations for service centers within each city that will be accessible and welcoming to local urban and innovative producers. These urban service centers will offer local urban producers a suite of USDA programs and services available to urban agricultural areas (*i.e.*, programs where eligibility is not restricted to rural areas) and will be tied into various relevant USDA regional efforts with overarching goal of created strong local food systems.

OUAIP is working across USDA to produce an updated and improved version of the Urban Agriculture Toolkit. The new Toolkit will be comprised of several quick-reference guides, an at-a-glance publication highlighting key resources, and website enhancements to both *Farmers.gov* and *USDA.gov*. OUAIP also developing training materials to educate and prepare USDA staff to serve new types of customers in urban areas. OUAIP has also been working on developing outreach materials to explain to new urban customers how to access USDA services.

USDA also has several funding opportunities available to support urban producers and projects. OUAIP offers an Urban Agriculture and Innovative Production (UAIP) competitive grants program to support projects that promote community gardens and nonprofit farms, provide job training and education, and develop business plans and zoning for urban agriculture, with priority given to communities lacking access to fresh and healthy food. Since OUAIP started, this program has funded 31 awards totaling just over \$7.9 million. Additionally, OUAIP's Composting and Food Waste Reduction cooperative agreement pilot program funds local government projects to develop and test strategies to increase compost and reduce food waste. Since the Office started, this program has funded 37 awards totaling just over \$3 million. This spring, OUAIP will announce the opening of these two funding opportunities (competitive grants and cooperative agreements) for FY 2022. The National Institute of Food and Agriculture (NIFA) is preparing to open a \$10 million Urban, Indoor and Emerging Agriculture competitive grant program.

Organizations working on urban agriculture are also eligible to apply for NRCS Equity Conservation Cooperative Agreements and there is a priority set aside for urban producers in the Conservation Innovation Grant (CIG) program. The Office of Community Food Systems (OCFS) awarded four grants to urban agriculture projects worth over \$300,000 through its Farm to School Program. These grants served seven public schools and over 50,000 students. Funds also supported other activities such as weekly experiential learning opportunity, multiple community urban farms, and community partners (Los Angeles Leadership Academy; Kid's Food Basket Grand Rapids, Michigan; Common Threads, Chicago, Illinois; and Urban Ventures, Minneapolis, MN).

Question 2. Under Secretary Moffitt and Chief Cosby, can you discuss the current nexus between horticulture and urban agriculture?

Answer. Horticulture is at the heart of urban agriculture. The major difference between agriculture and horticulture is that agriculture is inclusive of plant cultivation and animal husbandry while horticulture only includes plant cultivation. As animal husbandry may be incompatible with urban zoning, many urban farms focus more on plant cultivation.

As part of a Food System Transformation effort, USDA is working to build stronger and more resilient local food systems, and that includes supporting the breadth of agricultural practices used across the county, including horticulture.

Urban farms and community gardens, which are supported by OUAIP's USDA-wide People's Garden Initiative (PGI), play an important role in transforming our food system by addressing food and nutrition access and creating more robust local food systems. Many low-income urban areas lack grocery stores and access to nutritious food, such as fresh fruits and vegetables. Research shows that people who have access to fruits and vegetables eat more of them, and that children who garden are more likely to eat fruits and vegetables and have greater knowledge about nutrition and healthy eating habits. Eating a diet high in fruits and vegetables is associated with a decreased risk of many chronic diseases, including heart disease, stroke, high blood pressure, diabetes, and obesity. USDA's MyPlate recommends that everyone fill half their plate with fruits and vegetables.

OUAIP has also supported horticulture by providing funding for the Forest Service to complete work on three Urban Agroforestry Outreach Projects which included tree and ornamental shrub planting.

Response from Bruce Kettler, Director, Indiana State Department of Agriculture; Second Vice President, National Association of State Departments of Agriculture

Question Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question. Director Kettler—In your opening statement, you mentioned a philosophy you called “Cooperative Federalism” in conjunction with your written testimony, I can think of several of these policy areas, where cooperation between government agencies or state, local, and Federal Governments is likely lacking and compounding issues. Could you speak further about your thoughts on Cooperative Federalism and its impact on Hoosier farmers and Indiana agriculture?

Answer. June 14, 2022


Congressman James R. Baird,

As mentioned in my testimony, cooperative federalism is the idea that each level of government partners in the policy-making process. As the tenth-largest farming state in the nation, the Indiana State Department of Agriculture (ISDA) partners with many groups at all levels of government. These partnerships are integral to delivering good government service to Hoosier farmers and taking Indiana agriculture to the Next Level.

For example, in 2018 ISDA collaborated with the Indiana Department of Health (IDOH) and Purdue Extension to create Safe Produce Indiana, a unique partnership designed to bring enforcement, education and outreach on the Produce Safety Rule of the Food Safety Modernization Act (FSMA) at the state level. By working together, ISDA, IDOH and Purdue Extension leverage strengths to “educate before and while we regulate”. We provide training opportunities and outreach on the requirements of FSMA and through the National Association of State Departments of Agriculture's (NASDA) programming, we offer On Farm Readiness Reviews (OFFRs) which serve as a mock inspection for growers who are preparing for their first inspection. Without this cooperative approach, I firmly believe that Hoosier produce growers would be at a severe disadvantage.

Additionally, ISDA's Division of Soil Conservation (ISDA-DSC) is a prime example of cooperating across local, state, and Federal agencies, as well as private and nonprofit organizations to extend resources to Hoosier landowners and farm operators. Many of ISDA-DSC's staff work in USDA Service centers or local soil and water conservation offices. This approach gives Indiana Conservation Partners the ability to extend equipment, data, software, personnel, funding, and programs to private lands conservation efforts. Indiana is a leader in the nation when it comes to working lands conservation and therefore is a competitive space for new programs and funding opportunities.

I can attest, both in my professional experience in the private-sector and now in my role in the public-sector, that cooperative federalism ensures that government works for the people. States have a valuable role to play in the policy making process and by working together with the Federal Government, we can ensure effective, efficient and quality programs and service.



BRUCE KETTLER,
Director,

Indiana State Department of Agriculture.

A 2022 REVIEW OF THE FARM BILL
(ENERGY—RENEWABLE ENERGY OPPORTUNITIES IN RURAL AMERICA)

TUESDAY, APRIL 5, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: David Scott of Georgia, Costa, Adams, Spanberger, Hayes, Delgado, Brown, Rush, Sablan, Kuster, Bustos, Plaskett, O'Halleran, Carbajal, Lawson, Craig, Axne, Schrier, Pannetta, Thompson, Austin Scott of Georgia, Crawford, LaMalfa, Davis, Allen, Rouzer, Bacon, Johnson, Baird, Jacobs, Balderson, Cloud, Mann, Feenstra, Miller, Moore, Cammack, Fischbach, and Letlow.

Staff present: Lyron Blum-Evitts, Emily German, Chu-Yuan Hwang, Ashley Smith, Paul Balzano, Patricia Straughn, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. The Committee will come to order. Welcome, I want to thank everyone for joining us today at this important hearing entitled, *A 2022 Review of the Farm Bill: Energy—Renewable Energy Opportunities in Rural America*. So after brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open for questions.

And I want to say right off the top, such a welcome to my dear friend, the Under Secretary for Rural Development, the Honorable Xochitl Torres Small. Welcome, a great friend and a great Member, and you are doing a great, great job.

After brief opening remarks, Members will receive testimony from our witnesses, and then we will be open for questions. So let me begin with my opening statement.

I want to say again how important this hearing is and all of the ones that we have had as we review our present 2018 Farm Bill and as we prepare for the 2023 Farm Bill. We have these hearings so we on this Committee can hear from our participants so we can find out what is working and what is not working as we prepare our 2023 Farm Bill.

And today's hearing will cover the various farm bill provisions that cover energy production and energy efficiency, and I am looking forward to the discussion on how renewable energy production can provide new revenue streams for our agriculture producers and our rural economies and also how energy efficiencies can help lower input costs, which is so important.

And I want to start by highlighting a troubling trend to me and some of the Members on our Committee that I want to mention to you. Following the creation of the Energy Title in the 2002 Farm Bill, each farm bill after that has cut mandatory spending available for the title. Only 20 percent of the funding for Energy Title programs were mandatory in our most recent farm bill.

And let me just be clear maybe for some of the folks at home that may not know the difference here, mandatory money in the farm bill is money you can count on, money that is guaranteed to go into the program. And discretionary money is what it says. It is *discretionary*. You may get it and you may not. And so that is very important. And this is a significant problem since many of our Energy Title programs ultimately have not received any discretionary appropriations.

And I want to be clear. For the upcoming 2023 Farm Bill we need to consider what the needs are for our agriculture and forestry sectors, as well as our rural small businesses in terms of their potential role in producing renewable energy.

We also know that there is a tremendous interest from rural areas in undertaking energy efficiency efforts to help their bottom lines. And that is what we want to do. Our farmers like these programs, and they deserve greater certainty. Time and again, we have heard the positive developments that have come from work on renewable energy production and how much value is added to rural communities from these advancements.

We also need to review the needs for upgrading and investing in long outdated infrastructure in our rural communities. Our rural communities need our help, and we are determined to get the help that is needed for our rural communities. That would be resulting in lower energy costs and improvements to resiliency, security, and efficiency of our rural electric co-ops and their systems in the face of new cybersecurity threats and these terrible, awesome, dramatic weather events.

I am looking forward to hearing from our panel of distinguished witnesses today about all these opportunities and more, so fasten your seatbelts. We are in for a great hearing.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM GEORGIA

Good morning, and welcome to another important hearing in our work to review the 2018 Farm Bill and prepare for the 2023 Farm Bill.

Today's hearing will cover the various farm bill provisions that cover energy production, and I'm looking forward to looking deeply into how renewable energy production can provide new revenue streams for agricultural producers and the economies of their communities.

I want to start by highlighting a troubling trend—following the creation of the Energy Title in the 2002 Farm Bill, each farm bill after that has cut mandatory spending available for the title. Only 20 percent of the funding for Energy Title programs was mandatory in our most recent farm bill.

Let me clarify for the folks at home that mandatory money in the farm bill is money you can count on, money that is guaranteed to go into a program, but discretionary money needs to be included in an appropriations bill.

This is a significant problem since many energy title programs ultimately have not received any discretionary appropriations. I want to be clear: for the upcoming 2023 Farm Bill, we need to consider what the needs are for our ag and forestry sectors as well as our rural small businesses in terms of their potential role in producing renewable energy. We also know that there is a tremendous interest from rural areas in undertaking energy efficiency efforts to help their bottom lines.

Our farmers like these programs, and they deserve more certainty. We have heard time and again the positive developments that have come from work on renewable energy production and how much value is added to rural communities from these advancements.

We also need to review the needs for upgrading and investing in long outdated infrastructure in rural America, resulting in lower energy costs and improvements to the resiliency, security, and efficiency of our rural electric co-ops and their systems in the face of new cybersecurity threats or dramatic weather events.

I'm looking forward to hearing from our panel of distinguished witnesses today, about all these opportunities and more. I now recognize the Ranking Member for any opening remarks he may have.

The CHAIRMAN. And with that, Ranking Member, I turn it over to you.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, thank you, Mr. Chairman. And I am going to echo you in you hearing our witnesses to today's hearing. I look forward to hearing your thoughts and your perspectives as we look at the Energy Title. This was a title that I was proud to serve on the subcommittee that had the responsibility for that when I first came on this Committee. This is a title that really never had a baseline but had incredible importance.

I am always excited to talk about energy. Pennsylvania's 15th Congressional District is really the original energy district, and I know I don't see any of my friends from Texas in here, so they will take exception to that later, but it really is. We are steeped in a diverse history of energy production. Pennsylvania 15's coal fueled the Industrial Revolution for democracy to be able to win World War I and World War II. We are home to the nation's first-ever commercial oil well, the Commonwealth's only ethanol plant, and the oldest continually operating oil refinery in the United States.

More recently, America has become the world's largest producer and exporter of natural gas while at the same time reducing U.S. emissions. The Appalachian Basin alone, which includes the Marcellus and Utica Shale, represents the third-largest producing region in the world behind Russia and the rest of the United States, and we are incredibly proud of our role in powering not only the Commonwealth's economy but also the nation, our allies abroad, and the globe.

And I want to start this hearing with a proposition that I think should underpin our discussion today: access to affordable energy is access to freedom, both political and economic. One need look no further than the nations of Europe who are shackled to Russian energy and Putin's pipelines. Without sufficient energy resources of their own, they have lost the freedom to dictate their own foreign policy. Despite our common democratic values, they are forced to pour money into Russia to protect their citizens from the devastating costs of losing access to affordable, reliable energy. This is

what an all-of-the-above energy plan is about. It is about making sure everyone in America who needs energy has access to reliable energy when they need it.

Rural communities are no different. Rural electrification in the 1930s, 1940s brought new jobs, new technology, and new opportunities to millions of people. And today, as we continue to build and improve our nation's electric grid, expand access to energy, and deploy smart, renewable resources on farms and in communities, the USDA energy programs continue to bring new opportunities and economic growth to rural America.

But the expansion of new sources of renewable energy—ethanol, solar, wind, biogas, and more—cannot be done at the cost of every traditional source of power. We simply do not have the capacity to replace the energy from fossil fuels overnight. When expanding our production of renewable energy, we must ensure sufficient energy resources exist and remain to power the baseload needs of our nation and our economy.

But we don't need to look to Europe to see the damage insufficient energy resources can cause. We have seen it firsthand right here in our own country. At best, limited access to energy resources means increased energy prices, increased prices for those with too little to sacrifice their other needs so they can devote an ever-larger share of their income to procuring the electricity and the fuel that powers modern life. At worst, limited access to energy resources means arbitrary and indiscriminate energy rationing like the gas lines of the 1970s or the rolling blackouts of a California summer.

These are arbitrary, manmade crises and the predictable outcome of policies grounded in wishful thinking and naïveté. These are experiences we should carefully consider before we commit the United States to a policy of slow energy asphyxiation. Our farmers need access to diesel fuel, propane, fertilizer. These are all products of American-produced energy. Failure to provide sufficient, accessible, affordable, and reliable energy for the needs of our citizens will rob them of opportunities and options and the freedom to choose among them.

Fortunately, that doesn't need to be our fate. We can promote renewable energy in smart and sensible ways so economic growth and emission reductions complement one another. In particular, many of the projects funded through USDA's energy programs, including the Electric Loan Program, REAP, RESP are all tools to help communities and businesses diversify and expand their energy options, promote energy efficiency, and strengthen our energy resiliency. And I look forward to learning about the growing opportunities for renewable energy in rural America and how expanding our nation's energy portfolio can bring dividends to us all.

And with that, thank you, Mr. Chairman. I yield back.

The CHAIRMAN. Thank you, Ranking Member.

The chair will request that other Members submit their opening statements for the record so witnesses may begin their testimony and to ensure that we have enough time for all of our questions.

Our first witness is our former colleague here in Congress and our former Member of our Committee, who made such great contributions in her service on the Agriculture Committee, the Honorable Xochitl Torres Small, the Under Secretary for Rural Develop-

ment at the United States Department of Agriculture. Under Secretary Torres Small, we are so happy to see you. And, as I said at the outset, your service on the Committee was just tremendous and, as I also said to you, I am hopeful that perhaps one day you might decide to come back and join us again. I really appreciate you.

She is accompanied today by the Administrator of USDA's Rural Business—Cooperative Service, Dr. Karama Neal, and the acting Administrator of the USDA's Rural Utilities Service, Mr. Chris McLean. Welcome to the both of you as well.

So now, Under Secretary Torres Small, we want you to begin when you are ready.

STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.; ACCOMPANIED BY KARAMA NEAL, PH.D., ADMINISTRATOR, RURAL BUSINESS—COOPERATIVE SERVICE, USDA; CHRIS McLEAN, LL.M., J.D., ACTING ADMINISTRATOR, RURAL UTILITIES SERVICE, USDA

Ms. TORRES SMALL. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to discuss the state of energy and the bioeconomy in rural America and the United States Department of Agriculture Rural Development's role in supporting both.

As we discuss this topic, it is essential to recognize that we are talking about people and communities in transition. It is not lost on me that I am speaking to you today as a New Mexican whose public education was funded by the energy production that continues to fuel our state. I am honored to know parents who put their kids through college from the money they earned working in the Permian Basin and continue to be inspired by the hard work and innovation that occurs across New Mexico's energy sector.

In this room today we can talk about transition, but across rural America, people are living it. And in many places they are driving it. A young person working in energy today could be working in solar or wind while their grandparents were experts in fossil fuels because this transition has been happening for at least a decade.

Like all transitions, this one has bumps. There is disagreement, and there is pain. There is also consensus and innovation and increased efficiency and job creation. And I want to talk about all of these things. In particular, I hope to highlight what rural co-ops are doing in this space. But before we dive into that, I hope we can begin with an agreement, that the hard work and ingenuity that came out of rural America before renewables should be honored and valued. It powered this country for over a century, contributed significantly to American prosperity as a whole, and continues to be an important part of America's energy portfolio today. I am grateful for that contribution, and I know all of you are as well.

At Rural Development, our goals for energy are straightforward: reliable, affordable, and clean. When communities lean into clean energy, as so many are already doing and have been doing for years, the resulting economic prosperity is clear. It is powerful. Jobs are created. Consumers save on their energy bills, and new markets are formed. I am emphasizing rural electric co-ops today

not only because they are a great partner but because I think they are ahead of most of us in the way they think about clean energy.

For example, we recently awarded a \$6 million loan to Roanoke Electric Cooperative in North Carolina. Roanoke is going to use this loan to help their members pay for energy efficiency improvements from insulation to electric water heaters, as well as electric charging systems. This builds on the work of a program that the co-op started as a pilot in 2015.

So far, about 650 co-op members have received retrofits and are enjoying an annual savings of \$600 per year. In other words, co-ops got this energy efficiency ball rolling 7 years ago, and now USDA is helping to keep it moving and helping these co-op members to continue and increase their savings. We are also hoping to help pass these lessons on to other communities.

Now, that example was in the millions of dollars, but innovation and energy use is often best showcased by its smallest projects. I am thinking of 3 Porch Farm in Comer, Georgia, a sustainably grown flower and fruit farm owned by Steve and Mandy O'Shea. Steve and Mandy's business is known for its presence at farmers' markets in Atlanta, Marietta, and Athens. They are also known for their flower arrangements in weddings and other events. They keep their flower arrangements cool in a solar-powered design studio, and the farm runs its vehicles on recycled vegetable oil. These energy choices are a key part of Steve and Mandy's vision and philosophy for their business. When I think about Steve and Mandy, I am again grateful for the innovation, hard work, and leadership of the people in rural communities when it comes to energy.

I look forward to working with all of you to incentivize more innovation and support the rural people who power our country, who create good jobs in their communities, and who increase the security and resiliency of our energy economy.

Thank you, and I look forward to your questions.

[The prepared statement of Ms. Torres Small follows:]

PREPARED STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to come before you today to discuss the state of energy and the bioeconomy in rural America, and the United States Department of Agriculture Rural Development's role in supporting both. Energy production has long been a backbone of rural jobs, economies, and livelihoods. It is deeply rooted in the social and fiscal fabrics of rural communities and has contributed significantly to American prosperity as a whole.

But, as the future of our human health and economic output increasingly require a robust response to climate change, market demands are shifting from fossil fuels to cleaner sources of energy. The burning of fossil fuels is the primary cause of climate change,¹ and consumers are looking for cleaner options to power their businesses, homes, and schools—with forty percent of consumers preferring renewable energy in 2019 compared to twenty-five percent in 2018.² By 2026, global renewable energy capacity is set to rise more than sixty percent above 2020 levels, accounting for nearly ninety-five percent of total global power capacity increases.³

Rural communities are pivoting energy production models to respond to these market shifts, but not without challenges. Fossil fuel assets are deep, and continued

¹ <https://ugc.berkeley.edu/background-content/burning-of-fossil-fuels/>.

² <https://www.businesswire.com/news/home/20190422005350/en/Consumer-Demand-for-Clean-Energy-Significantly-Increases>.

³ <https://www.iea.org/news/renewable-electricity-growth-is-accelerating-faster-than-ever-worldwide-supporting-the-emergence-of-the-new-global-energy-economy>.

financing and operation of historic investments by energy producers contribute toward general community reluctance to shift to new sources of energy. I believe this shift is not only possible but will be catalyzed by ensuring that rural America is at the table. Rural communities are resilient and incredibly innovative. Their expertise, skillsets, and decades of experience in energy industries will be invaluable in the transition to clean energy.

Rural Development is poised to be a dependable partner in this transition. Rural Development does not regulate U.S. energy entities but rather can provide incentives and expertise by way of deep ties in rural communities, and long, trusted relationships with rural electric cooperatives and producers. The transition to clean energy can be beneficial for utilities, customers, producers and rural communities alike. It can contribute to energy grid security, the fight against climate change and extreme weather in rural areas and provide savings for customers and producers. I look forward to working with Congress to support clean energy and the bio-economy in rural America.

Energy Security

Consumers across the United States depend on uninterrupted and affordable availability of energy sources every day. This means energy systems that are secure against cyberattacks, resilient enough to withstand extreme weather, and insulated against global conflict. Yet, just as we have seen across the global supply chain, the United States' energy system is rigid, fragile, and susceptible to disruption that has an immediate and sharp impact on families' budgets.

Putin's war on Ukraine is removing millions of barrels of oil from the global supply, one of many factors driving the highest price that consumers have ever paid at the pump.⁴ Economists expect retail fuels prices to rise to \$4.50 per gallon by April⁵—underscoring that the energy supply chain is consolidated, inflexible, and highly susceptible to shocks that have a direct impact on consumers.

Cyber security risks are on the rise in the energy sector, with bad actors increasingly targeting U.S. energy assets. In 2021, a Russian ransomware attack on the Colonial Pipeline caused the company to shut down the pipeline for the first time in history. The shutdown of the pipeline, which provides forty-five percent of fuel across the East Coast, had immediate, far-reaching impacts. In Washington, D.C., eighty-seven percent of gas stations went dry.⁶

Millions of Americans feel the effects of climate change each year when their power goes out, like in Texas, when uncharacteristically severe winter storms swept the state in early 2021. Almost seventy percent of customers served by the Texas state power grid experienced an outage.⁷ Those who lost power were without electricity for an average of forty-two hours in subzero temperatures. As these power outages demonstrated, our aging electric grid needs urgent modernization, including more smart grid technology and more transmission lines.

Rural Development is taking steps to address energy security internally but is also working to partner across the energy sector to address resiliency broadly. USDA and the Department of Energy (DOE) have a memorandum of understanding between the two Departments as required by the 2018 Farm Bill, which has spurred enhanced coordination and cooperation on energy and electric issues. USDA and DOE have engaged in productive consultations on cybersecurity and continue to work to leverage each's funding to support grid reliability. It should also be noted that many rural communities rely on energy services purchased by their rural municipal or cooperatively owned utility through agreements with the Power Marketing Administrations. This cost-based clean energy, largely generated at Federally owned hydropower facilities, is an important contributor to rural energy security and stability, both economically and operationally.

As part of the Biden-Harris Administration's work to prevent electric system failures from weather events like last winter's power outages throughout Texas and to protect the grid from ransomware and other cyber-threats, USDA created a new division to help increase the security of the nation's electric grid. The Grid Security Division, in Rural Development's Electric Program, aims to increase Federal collaboration to protect the nation's electric grid from service disruptions and outside attacks and is keenly focused on electric grid security. It informs rural-serving electric utilities of USDA's ability to finance utility investments in cybersecurity, grid secu-

⁴https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epm0_pte_nus_dpg&f=m.

⁵<https://www.nytimes.com/2022/03/10/business/russia-ukraine-war-gas-prices.html>.

⁶<https://www.atlanticcouncil.org/blogs/energysource/cyberattacks-on-our-energy-infrastructure/>.

⁷<https://www.texastribune.org/2021/03/29/texas-power-outage-ERCOT/>.

ity, fire prevention, reliability and resilience. It also works closely with industry groups and other stakeholders on critical infrastructure security policy.

Rural Development also finances investments that will help utilities manage loads to ensure system reliability and security through the Electric Loan Program. In Fiscal Year 2021, Rural Development financed \$5.1 billion for ninety-two projects under the Electric Loan Program, including \$102 million in Smart Grid projects. These projects range from building solar farms in rural areas to financing cooperatives as they lay fiber backbones and power lines. These projects will help improve quality of life and support good-paying jobs, transition to a clean energy economy, and keep the United States poised to lead the global economy. Rural Development will continue to work to make rural electric infrastructure stronger, more sustainable, and more resilient than before.

New Markets & Climate Resilience

Clean energy can also be a catalyst for economic development in rural America. Cleaner power options—like wind, solar, and biofuels—provide new market opportunities for producers and small businesses, reducing energy costs for consumers and supporting skill-based jobs in rural communities.

When rural communities lean into clean energy transition, the resulting economic prosperity is evident. Rural Development recently financed a \$95 million guaranteed loan to Prairie State Solar in Perry County, Illinois. The loan supported a 600 acre solar photovoltaic farm to deliver and sell its electrical output to a service area that meets rural eligibility requirements. The output of the project is sold to Wabash Valley Power Association, an electric generation and transmission cooperative that provides wholesale power to twenty-three distribution cooperatives in Illinois, Indiana, and Missouri. The project created roughly 200 local construction jobs, powers approximately 15,000 rural households, and provides permanent employment for between three to five people. At the time, the project doubled the statewide solar capacity in Illinois and contributes millions in tax revenue for the state without requiring additional public infrastructure or services.⁸ This kind of opportunity stimulates real economic development—good paying jobs, lower costs for consumers, and revenue for other public services—all while harnessing rural innovation to tackle the climate crisis.

The Biden-Harris Administration has been clear about its commitment to addressing climate change, and the Rural Utilities Service Electric Program has made great strides in reducing the carbon intensity of its loan portfolio. This has been accomplished by eliminating new coal-fired generation projects and increasing investment in renewable energy projects providing clean, sustainable electricity to rural communities, particularly solar energy. From 2010 to 2020, the carbon intensity of this portfolio measured in pounds of carbon dioxide emitted per megawatt hour of electricity generation decreased by twenty-five percent. This represents a reduction of seventy-six million tons of carbon dioxide.

Biofuels and BioPreferred[®] also present an opportunity for blenders, manufacturers, and businesses to participate in climate-smart initiatives while creating new markets for producers and rural businesses. Under the CARES Act, Rural Development will make available up to \$700 million in payments for eligible biofuel producers for unexpected market losses resulting from COVID-19. This funding will restore renewable fuel markets affected by the pandemic, maintain a significant biofuels marketplace, and help agricultural producers maintain and create more viable markets for products that supply biofuel production, such as corn or soybeans. Rural Development will also soon make \$100 million available to increase the sale and use of higher blends of bioethanol and biodiesel by expanding the infrastructure for renewable fuels derived from U.S. agricultural products. Grants will be available for refueling and distribution facilities covering the cost of installing, retrofitting, or otherwise upgrading infrastructure required at a location to ensure the environmentally safe availability of fuel containing bioethanol blends of E15 and greater or fuel containing biodiesel blends of B20 and greater. Biofuels—which can be a carbon-neutral product—absorb carbon dioxide as inputs grow, offsetting emissions and creating a cleaner fuel option. In 2020 biofuels supported 62,000 direct jobs across the country, \$35 billion in economic output and \$19 billion in household income.⁹ Ethanol also displaced more than 500 million barrels of cruel oil in 2021, contributing to efforts to protect America's energy independence.¹⁰ Advanced biofuels have the potential to de-carbonize the hard to electrify modes of transportation such as

⁸ <https://www.kfvs12.com/story/37669426/perry-county-solar-project-to-bring-jobs-boost-solar-capacity-in-il>.

⁹ <https://ethanolrfa.org/ethanol-101/why-is-ethanol-important>.

¹⁰ <https://ethanolrfa.org/ethanol-101/why-is-ethanol-important>

aviation, marine and rail. USDA is a lead agency, along with Department of Energy and Department of Transportation, supporting the government wide Grand Challenge to produce 3 billion gallons/year of Sustainable Aviation Fuel reducing aviation GHG emissions by 20% by 2030. Additionally, Rural Development provides significant support for biobased products industry, which accounts for a value-added contribution to the U.S. [e]conomy of \$470 billion and employs more than four million people.¹¹ Biobased products are derived from plants and other renewable agricultural, marine, and forestry materials and provide an alternative to conventional petroleum-derived products while providing new markets to producers. The 2002 Farm Bill created the BioPreferred® Program, which identifies and seeks new markets for biobased products, spurs economic development, creates new jobs, increases the use of renewable agricultural resources through a voluntary labeling program and a Federal procurement preference. In 2018 Farm Bill Congress deepened its commitment to biobased markets by requiring the Department of Agriculture and the Department of Commerce to jointly develop NAICS codes for renewable chemical and biobased product manufacturers. Rural Development is coordinating with Federal partners to implement this provision. Biobased products have the potential to reduce greenhouse gas emissions by an estimated twelve million metric tons of carbon dioxide equivalents per year.¹²

The biofuels and biobased products sectors are success stories—demonstrating that efforts to combat climate change go hand in hand with strong economic development, particularly in rural communities.

Rural Energy Efficiency

Rural Development also plays a role in increasing energy efficiency in rural communities—initiatives that reduce the carbon footprint of construction, processing, and production, as well as slashing costs for consumers. These costs are particularly important for low-income communities, where households often pay as much as thirty percent of their income on energy costs.¹³ In many cases, energy efficiency is not just a climate issue but an equity issue.

The Rural Energy Savings Program, a relending program, provides zero interest loans to utilities to relend to residential, commercial, and industrial consumers for energy efficiency investments. The Rural Energy for America Program—which also serves biofuels and clean energy production—gives producers and businesses a hands-on way to participate in climate-smart practices while also cutting energy costs. Among other uses, REAP can provide grant and loan funding directly to producers and businesses to make energy efficiency improvements. In some cases, applicants have used funding to purchase new, more energy-efficient equipment on the farm—like the first new grain dryer purchased since 1980—which reduces overall energy usage and cuts input costs for producers. In other cases, applicants used funding to replace doors and windows in a facility to better insulate their business and reduce heating bills. Since January 2021, Rural Development invested \$687 million in REAP projects like these, all which play a significant role in tackling the climate crisis. In that same period, Rural Development projects resulted in greenhouse gas emission savings of 1.4 million metric tons of carbon dioxide annually for the life of these projects.

These programs demonstrate strong successes in the fight against climate change while also helping cut energy costs and increase efficiency for producers and rural businesses. Yet, there is still work to do. Often, these programs are cumbersome and difficult to apply for, particularly for underserved communities who are grappling with structural barriers like lack of access to capital, technical assistance, or capacity to navigate Rural Development’s resources.

To more equitably serve customers and deliver programs, USDA recently announced and held the first meeting of an Equity Commission, which is charged with evaluating USDA programs and services and recommending how we can reduce hurdles to accessing them. Rural Development is also looking for creative ways to provide capital and technical assistance to communities that historically have not had resources like REAP. We know that investments in our boots-on-the-ground staff help communities navigate not only Rural Development resources but those across the Federal family. Rural Development can provide resources to both help tackle the climate crisis and cut costs for families, businesses, and consumers—these benefits

¹¹ <https://www.usda.gov/media/press-releases/2021/07/29/usda-releases-economic-impact-analysis-us-biobased-products>.

¹² <https://www.usda.gov/media/press-releases/2021/07/29/usda-releases-economic-impact-analysis-us-biobased-products>.

¹³ <https://www.aspeninstitute.org/blog-posts/rural-clean-energy-innovation/>.

should be felt by all and underscore the importance of delivering programs equitably.

Conclusion

These programs demonstrate remarkable success in the fight against climate change while also helping cut energy costs and increase efficiency for producers and rural businesses. Rural residents know what works for them, and they know what tools they need to adapt to changing circumstances and build a more resilient future.

Rural Development is poised to meet and expand our commitment to energy and the bioeconomy in rural America. I look forward to working with this Committee to support this mission.

The CHAIRMAN. Thank you, Under Secretary Torres Small, for your very, very nice testimony.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. Each of you will be recognized for 5 minutes each in order to allow us to get to all the questions, as many as possible. And again, please keep your microphones muted until you are recognized in order to minimize background noise. And I want to start off by recognizing myself for 5 minutes.

Under Secretary Torres Small, in the submitted testimony of Mr. Cherrier, who we will also hear from on the next panel, recent backlogs in the RUS loan approval process were noted due to declines in staffing at RUS and effects of the COVID-19 pandemic that led to a drop-off in volume of projects needing loan approval review. Can you discuss the status of those backlogs and any progress that has been made, and how has this backlog affected electric cooperatives' abilities to secure financing necessary for these local rural projects?

Ms. TORRES SMALL. Thank you, Mr. Chairman, for that question. And it is crucial that we identify really what our greatest resource at Rural Development is, and that is its people. And I have been working hard to make sure they have the support that they need to get the job done, and in the midst of COVID-19 there were a lot of challenges to make that happen, whether it was the coordination that has to happen during environmental reviews and reaching out to other areas during that time and other agencies, and as well as Native American sovereign governments, also, as we do some of the additional work when it comes to responding quickly to energy needs. To speak more about some of the work that has been done internally to make sure that we are targeting our staffing resources more specifically, I will defer to Administrator McLean.

Mr. MCLEAN. Well, thank you very much. At the Rural Utilities Service during the COVID period there were delays in part due to emergency procedures adopted in the environmental review process. But in June of last year I repealed those emergency procedures. We have also been dealing with a rebuilding of our staff. Amidst the pandemic and immediately before, we had a number of senior employees retire and other employees take other jobs, and the budgetary constrictions limited our hiring ability during that time. But we are in very strong rebuilding mode right now in terms of rebuilding our staff. We are hiring some excellent talent, particularly in the environmental review area, hiring new archaeologists

to be able to fill in and lining up some surge capacity with contract support.

All that being said, we also redeployed our staff in matters to be able to deal with projects that we had in the pipeline. And I am very pleased to report that, despite the challenges we faced over the last fiscal year with capacity constraints of staffing, the Electric Program turned in its third consecutive year of investments exceeding \$5 billion. So it was a very, very strong year for the Electric Program. And as we move forward and as times return to more normal operations, hopefully with the pandemic in the rearview mirror, we look forward to being able to find further areas of streamlining and continuous process improvements to make the customer experience that much better.

The CHAIRMAN. And now tell me about your ability to secure the necessary financial help that you need and also how we here in Congress can be helpful to you in securing this financial help?

Ms. TORRES SMALL. Chairman Scott, thank you so much for that question. And as you know, the President's budget was recently released where they identified opportunities for increased staffing investments. We certainly know that resources are limited but are grateful for your support for Rural Development and are eager to continue that dialogue.

The CHAIRMAN. Thank you very much. And with that, I will now yield to you, Ranking Member, for your questions.

Mr. THOMPSON. Well, thank you, Mr. Chairman. Madam Under Secretary, thanks again for you and your team being here, it is much appreciated. Always good to see you. And first of all, I just want to say I appreciate your opening comments reflecting on growing up in New Mexico, another great energy-producing state, and the impact that that had on helping to fund public education and just raise the economy for folks.

And I wholeheartedly agree with your written testimony that Putin's war in Ukraine is removing millions of barrels of oil from the global supply, which is impacting the prices that consumers are paying at the pump and driving up inflation. That is just impacting every community and every family. Unfortunately, there is little we can do about Putin's reckless criminal adventurism, his genocide that he is conducting on a peaceful country. But, when it comes to energy prices which impacts agriculture in all communities obviously, urban, suburban, and rural, the Biden Administration has willfully chosen to take millions of barrels of oil from the global supply. And this Administration has blocked key pipelines, withdrawn land from production in Alaska, your home State of New Mexico based on Federal lands, Federal waters, and imposed costly new rules and regulations to hamstring domestic energy production.

And if the loss of millions of barrels of oil from the global oil supply from Putin's war, which I think we all agree is wrong and driving up prices for consumers, then the question I have to ask is why is the loss of millions of barrels of oil from global oil supply by President Biden's reckless policy not also driving up costs for consumers? And how can it be that supply constraints caused by Putin are bad, but the supply constraints caused by President Biden and Vice President Harris' Administration are harmless? I don't know

if you want to respond to that or not. I will give you the opportunity.

Ms. TORRES SMALL. Thank you so much, Ranking Member Thompson. And I deeply appreciate you bringing up Putin's war against Ukraine. I know that all of us are inspired by the bravery of Ukrainians, and I certainly keep them in my prayers.

It also has informed both our immediate challenges and our long-term challenges when it comes to the need for energy independence. Recently, I was in Alaska and I saw what energy dependence can look like. And some of the islands off the shore in Alaska, 100 percent of their energy production comes from diesel. And they are looking at potentially quadrupling their energy bills or kilowatt hour expense because of their reliance on diesel.

So as Rural Development, our key opportunity here is to invest in some of the solutions that local communities are looking at to build that energy resiliency both in terms of a local supply in the short-term and in terms of more resilient cleaner supply in the future.

Mr. THOMPSON. I appreciate that for the long-term. We always should be looking over the horizon of what is next, but we have a crisis right now, and it is a crisis that is driving up food prices to the point where we are going to be faced with increased—certainly around the world, hopefully not in our country, but we will have inflation here that is going to make it difficult for people to get access to the food that they need. But around the world we are going to have by this fall increased hunger, starvation, and death through famine. And so one of the things—so there is an immediate need here.

I would hope, in terms of your role with rural economic development and looking at the big picture—and quite frankly I am really proud of RUS and what we have for USDA in the energy space, that we could be a voice with the rest of this Administration. It is time to open up American resources. That is a solution for the fertilizer issue with natural gas development. And so that is something that could be done with the stroke of a pen. That doesn't take anything more than a second for the President to be able to do.

And Madam Secretary, I appreciate your focus on the importance of ethanol to the rural community as well, but I am troubled by the Administration's insistence on massive subsidies to spur the adoption of electric vehicles. That is a whole additional issue I am not going to have any time to get into, so we need to look at the total footprint of these electric vehicles and are they really a solution for climate. But once again, thank you for your leadership, and I hope you will use your influence to communicate. We have an immediate crisis here, and our farmers and American families could benefit from reversing some really detrimental policies that have helped to escalate these fuel prices. So thank you. Thank you, Mr. Chairman.

The CHAIRMAN. And thank you, Ranking Member. Your points are right on target.

The gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Mr. Chairman, and thank you for hosting today's hearing. And to our witnesses, thank you very

much for being here. Ranking Member Thompson, thank you as well.

You all bring a wealth of knowledge to an issue critical to curbing climate change and maintaining our energy independence. The pandemic has shown us that our rural communities desperately need investments in broadband infrastructure and small utility authorities. The farm bill has much to offer rural America. Although I represent an overwhelmingly urban and suburban district, I acknowledge the essential role the Members of this Committee must play.

As the chair of the bipartisan HBCU Caucus, last week we celebrated the conclusion of a fifth successful HBCU STEAM Day of Action where, over the course of 5 days, hundreds of private-sector, nonprofit, and university participants engaged with a bipartisan, bicameral group of legislators who advocate for HBCUs. And as you may know, all of our 1890 land-grant institutions are based in rural America, priming these HBCUs as the best potential partners for the Department. So can you discuss the Department's plans for 1890 institutions on climate resiliency and climate-smart initiatives?

Ms. TORRES SMALL. Thank you so much, Congresswoman Adams. It is wonderful to get to see you. And I deeply appreciate your comments about how we both share roles in this challenge and recognizing the rural and urban connection that is crucial to addressing some of these challenges.

When it comes to 1890s institutions, one of my immediate thoughts is the conversation we were just having about staffing and the future of the Rural Development workforce. I think the increased partnerships we can have with these institutions, the more we can diversify our staff and invest in the next generation. And I certainly see, as we continue to expand our long-standing work in these institutions, it also provides an opportunity for a future pipeline.

To talk a little bit more about some of our work with these institutions, I will defer to my colleague, Administrator Neal.

Dr. NEAL. Thank you so much for that question and for your interest in 1890s institutions. I think there are two things I think we can highlight here. One, we heard Under Secretary Small talk about staffing. We have been pleased to host 1890s fellows within our ranks and to make sure that they get the training and that they can contribute to the work that we are doing throughout rural America and through RBCS and Rural Development more broadly. So we have been excited about that and look forward to opportunities to extend our engagement in 1890s fellows programs.

In addition, we work throughout the Department to look for opportunities for cooperative agreements, and we have seen that particularly in the food sector and some of the work we have done there with some of our colleagues across the Department, and we look for additional opportunities to partner with HBCUs because of the talent and the opportunities that they can provide in the work that we are doing. Thank you.

Ms. ADAMS. Great. Well, thank you. So, Madam Under Secretary, what can the agency do to leverage dollars available in the IJJA for rural America to ensure that 1890s can play a role in this sec-

tor? Because, the Infrastructure Investment and Jobs Act (Pub. L. 117–58) allocated close to \$2 billion for schools and institutions in rural areas.

Ms. TORRES SMALL. Thank you so—

Ms. ADAMS. Go right ahead.

Ms. TORRES SMALL. Thank you for the question, and I am excited to follow up with your team as well to make sure that the specifics of some of the work that can be done with HBCUs we can follow up because so often it is about looking at specific HBCUs and where their strengths are and how we can best align those efforts. I see HBCUs as a clear opportunity for capacity in rural communities, so making sure that there is an institution that is focused on the work that is happening in their area and how we can better connect them. So I think there is a great potential when we look at the bipartisan infrastructure law to continue to invest in those partnerships.

Ms. ADAMS. Okay. Well, great. And thank you so much for that. I have just a few seconds. So any options for small- and medium-sized farmers to help produce renewable energy in their operations?

Ms. TORRES SMALL. Oh, that is such an exciting question, and I think it is a crucial part of how Rural Development shows up in this space, having those relationships with rural communities to invest in Rural Energy for America Program investments, for example, is a key place where we can support rural producers and their work to make their operations more energy-efficient.

Ms. ADAMS. Great. Well, thank you. Mr. Chairman, I am going to yield back.

The CHAIRMAN. Thank you. And now the gentleman from Georgia, Mr. Austin Scott, is now recognized for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And, Madam Under Secretary, I appreciate your time. I am sorry that I am not there in-person. Like many, I am juggling multiple hearings this morning.

I want to go back to what the Ranking Member said about part of your testimony and blaming the increases in prices in the U.S. on Putin's war in Ukraine. And I want to make this clear. The price of fertilizer, the price of diesel, the input prices for agriculture had gone up well in excess of 50 percent before Putin ever invaded Ukraine. And it is a little—in fact, I will tell you it is very disingenuous for President Biden and the Biden-Harris Administration to continue to use the war in Ukraine as an excuse for why the input costs are so high when he took more oil off of the markets with his policies than has come off because of the Russian sanctions. And so I want to just make that clear. I mean, the input cost for the farmer had gone up well in excess of 50 percent before Russia invaded Ukraine, and that is because of the bad policies of the Biden-Harris Administration.

And with that said, Madam Under Secretary, you mentioned that these new sources of energy are reliable, they are affordable, but the fact of the matter is every morning in America farmers wake up and they are going to fire up a couple hundred horsepower diesel tractor in most cases to farm, and I am just extremely concerned about the increasing number of factors that are impeding

the ability of our farmers, input costs especially, to produce the food and fiber that we all depend on. Now, knowing that the increased cost of fuel increases the cost of food, what is your agency doing to help reduce the cost of inputs in agriculture?

Ms. TORRES SMALL. Thank you so much, Congressman, for your question and your recognition of the complexity of the impacts currently that folks are facing both when it comes to at the supermarket or at the gas pump, the challenges that we face from COVID, from war, and other challenges that we face, especially relating to the supply chain.

When we look at Rural Development, our opportunity really is to support farmers and rural communities who are grappling with these challenges, whether it is working to provide more offerings within a market like expanding investments in the food supply chain or whether it is working to also create more energy independence from a REAP side and more energy efficiency.

To talk a little more about the work that we have been doing in the food supply chain, I will defer to my colleague, Administrator Neal.

Dr. NEAL. Thank you for the opportunity to speak about that. I think one of the things that is really important is to recognize, we in the United States are a net exporter of food, and so we are in a good position to feed ourselves. We recognize there have been price increases and there have been some challenges there, so we are supportive of and helping implement the Administration's action plan around creating a fairer, more resilient, more competitive meat and poultry supply chain. We have seen that work both in terms of meat and poultry but then also in terms of the broader food supply chain. Under Secretary Torres Small mentioned our food supply chain work. We have a Food Supply Chain Guaranteed Loan Program, which is already receiving applications to support activities throughout the middle of the food supply chain so that folks have access to capital to build their businesses, to help to support the aggregation, the distribution, the wholesaling, the various kinds of activities that are important to get food and food products from the farm to the table so that people can eat and have the food that they need at an affordable rate.

And so those are just a couple of the kinds of things we are doing. There is a significant amount of work that is happening throughout the Department. Rural Development, RBCS has some of those activities but not all of them, and we are excited to work in partnership with our colleagues throughout the Department to make sure that those programs are effective, are doing the kinds of things that we want them to do, and are making a difference both for the producers who are growing those foods, growing those food products, and also for the consumers who are all of us who need those food products.

Mr. AUSTIN SCOTT of Georgia. Well, I think there is a very serious disconnect between what the Biden-Harris Administration believes is good policy and what is happening at the grocery store. I don't see how anybody who shops for groceries could believe in any way, shape, form, or fashion that what Biden and Harris have done through their Administration is helping the American consumer with regard to their grocery bill. So I look forward to the

continued discussion, but I am someone who is worn out with the Biden-Harris Administration using the war in Ukraine as an excuse for inflation inside the United States. I yield back.

The CHAIRMAN. Thank you, Mr. Scott. And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is now recognized for 5 minutes.

Ms. SPANBERGER. Thank you so very much, Mr. Chairman. Thank you for holding this important hearing on our Energy Title programs in the farm bill. And certainly it is unfortunate that the Secretary of Energy isn't here because I am sure she would have great responses and comments to make about the more than 9,000 oil leases that are currently out there that industry is choosing not to tap into for the prior gentleman's comment. And certainly we know that in the month since the Russian invasion of Ukraine, fertilizer prices are 40 percent higher than they were before the invasion, clearly making a strong and obvious connection when you have one of the largest producers of not only fertilizer but necessary components of fertilizer engaging in an aggressive war against a neighbor. Certainly, that has made major disruptions to the supply chains, not to mention truck driver shortages and other challenges.

But what we are here today to talk about are not all of these other contributing issues. We are here to talk about the real importance of programs that allow for us the security, affordability, and production of energy at home. Certainly in the context of global instability and supply chain bottlenecks, we can see that there are positive programs that can be so vital to rural America, to our farmers and producers, and that is why, while I have advocated for measures that provide immediate relief to the price at the pump such as multiple releases of crude oil from the Strategic Petroleum Reserve, these USDA programs that we are here to talk about are what can provide long-term solutions to increase energy independence, reduce pollution, and increase efficiency, all while saving money for our rural communities.

So, Secretary Torres Small, I would like to begin with you because in your testimony you talked about the Rural Energy for America Program, the REAP program. I have been a strong supporter of the REAP program, and I was very proud when provisions from my REAP Improvement Act (H.R. 4162, Rural Energy for America Program (REAP) Improvement Act of 2021) were included in legislation that recently passed—well, last year passed out of the House. But this bipartisan legislation would not only—the REAP Improvement Act would not only dramatically increase annual funding for the program to \$250 million but also would take steps to improve accessibility for rural communities and create additional flexibility for applicants. For example, the bill would expand eligibility for farmer co-ops, reduce burdensome cost-shares for farmers and agribusinesses, and create a fund for underutilized technologies, including biodigesters or biofuel-related infrastructure.

So when we are talking about REAP, Under Secretary, it is consistently oversubscribed and under-funded, leaving many producers and agribusinesses to be pretty frustrated with the backlogs in the program. This is despite an impressive record. In the last 6 years,

REAP has leveraged more than \$300 million in public investments to stimulate more than ten times that amount in private investments, right? So \$300 million public investment, ten times that amount private investment, delivering more than \$4 billion in energy efficiency and renewable energy projects for rural America.

So I know I don't have to convince you of the value of this program, but I was hoping that you might be able to expand for the Committee on how we might be able to improve this program in the 2023 Farm Bill, what sort of resources would be needed to meet the actual current demand for REAP assistance, and what would you have us know as we head towards the farm bill?

Ms. TORRES SMALL. Thank you so much, Congresswoman Spanberger, for your investment in rural communities. You truly, with your focus on REAP, have the farmers' back. And I am grateful to continue this dialogue about how we can better support those farmers as they implement energy efficiency opportunities in the way rural folks know best, whether that is updating a grain dryer that hasn't been updated since the 1980s to make it more efficient or whether that is investing in making biodiesel more energy efficient in their production. So there are great opportunities here, and I really appreciate your focus on ways to make it more accessible, streamlining the application process, for example, and ways to include other partners. You are absolutely right it is oversubscribed. And when we look at grants, it was about \$40.5 million in grants that were allocated and then another \$30 million in the wings waiting to be funded, which we didn't have the money for.

So to speak a little bit more about this program, I will defer to Administrator Neal.

Dr. NEAL. Yes, I am always happy to talk about our REAP program. And it provides both grants and guaranteed loans for a variety of purposes, for renewable energy systems, for energy efficiency projects, just for a variety of those kinds of things. And so we look forward to sort of figuring out how to make this program more modernized as we think about our staffing, making sure that there is support for the kinds of environmental reviews and other kinds of support that are required for the effective administration of this program.

And of course, as we heard, we have had a record year. Not only are our grant funds expended, we also had a record year for our guaranteed loan programs previously. And so we know that there is significant interest in this program, and we welcome your interest and continued support of the work.

The CHAIRMAN. Thank you.

Ms. SPANBERGER. Thank you, Mr. Chairman.

The CHAIRMAN. And now the gentleman from Arkansas, Mr. Crawford, is recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman. I want to associate myself with the comments of Mr. Austin Scott and our Ranking Member as well just to reiterate this problem with issues like fertilizer and so on. I was getting calls about this, this time last year. So this problem with inputs and supply chain issues didn't just materialize as a result of Vladimir Putin.

But that said, Madam Secretary, I am wondering if you can talk about what your plans are. I know that rural America can play a

pretty important role in developing renewable energy, but I wonder if you can explain how rural Americans are supposed to deal with how they might power, for example, a 300 horsepower tractor in the production of food and fiber to feed and clothe our population, as well as being important in the global marketplace?

Ms. TORRES SMALL. Thank you, Congressman Crawford. And I certainly recognize the importance that we have to work together on these challenges, knowing that there is no one simple silver bullet that fixes everything but rather that we have to invest in the places where we are seeing innovation happen on the local scale. And that is where Rural Development really shines. We are not in the regulation space but we are in the investment space, in the incentivizing space. So when a farmer or a rural community has an idea about how to expand their energy independence, we are there to support, whether it is through the Rural Energy for America Program or whether it is through investments when it comes to our utilities and utility-scale investments. So there is a lot of work that has to be done in this space, and Rural Development is really pleased to be there to support the local vision for their community and how to best diversify the energy economy.

Mr. CRAWFORD. Well, I appreciate your comments, but you really didn't answer my question. I am wondering what does a farmer do today when we are seeing policy developed that is so focused on renewable energies? Are they to put solar panels on top of their 300 horsepower tractor? Or how exactly does that work? Or are they going to use electric tractors that are powered by wind turbines? We have large-scale ag operations across the country that our people rely on for food and fiber. And I just don't think it is realistic to think that you are going to focus almost exclusively on renewables and at the same time expect farmers to be able to produce at the scale that we need them to with regard to how we actually produce our food and fiber. So let's try it again. What are your plans for our current farmers who produce on large-scale operations to feed and clothe 350 million people in this country and overseas as well?

Ms. TORRES SMALL. Congressman Crawford, I deeply appreciate your focus on farmers and how to best support them and also recognize—I think it was Ranking Member Thompson who said although we need to invest in renewable energy, that transition will not happen overnight. I, in my opening comments, talked about New Mexico and recognizing the diverse energy industry that is there and the work that happens right now when it comes to tractors or beyond that rely on a diversity of fuels.

But as we look to the future, there is a key opportunity here to support biodiesel, to support opportunities to make that production or that use of energy more efficient. And that is the way Rural Development can help incentivize those investments and to make them accessible to people across rural America.

Mr. CRAWFORD. Thank you. Can you talk more about your Grid Security Division? What outreach has been conducted with stakeholders? And I would also like to hear about the types of critical infrastructure security policies that you have developed.

Ms. TORRES SMALL. Thank you, Congressman Crawford. I think this is another great place where we can work together. When I

served in Congress, I was on the Homeland Security Committee and certainly recognize the importance of cybersecurity. We also recognize the need to invest in grid security across the board whether it is extreme weather, as well as other challenges to make sure that our energy is resilient.

To speak a little bit more about the creation of the Grid Security Division, I will defer to my colleague, Administrator McLean.

Mr. McLEAN. Thank you very much. And thank you for that question. The Rural Utilities Service took to heart this Committee's endorsement of the 2018 Farm Bill of the provisions that highlighted the importance of cybersecurity, in particular in grid security. And you are correct we did create a Grid Security Division. And we have also just last week reminded our borrowers that the RUS is ready, willing, and able to be able to finance cybersecurity investments, grid security, physical security investments, as well as fire prevention investments, including emergency and response vehicles, security vehicles, drones, software, even though traditionally those types of investments would have been categorized as operational expenses rather than capital expenses. But we determined that it was critically important that finances be made available for those purposes, and we continued our long-standing process of having every borrower who comes to RUS for a new loan or an additional loan to be able to give us a risk assessment and emergency response plan. So we take cybersecurity very seriously. We are working closely with our colleagues in the Department of Energy and trying to make funds available to rural electric service providers to be able to strengthen and harden the grid.

The CHAIRMAN. Thank you. And now the gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations is now recognized for 5 minutes.

Mrs. HAYES. Thank you, Mr. Chairman, and thank you to Under Secretary Torres Small for being here today, we are thrilled to have you back in the Congress.

Last year, USDA announced that it would be investing \$464 million into projects to build and improve renewable energy infrastructure and to help rural communities, agricultural producers, and businesses lower energy costs: \$115,000 went to Connecticut through the Rural Energy for America Program, including four projects in my district worth over \$43,000. These funds were awarded for solar power installation and technology improvements that will result in cost saving of over \$15,000 each year.

This program is critical to small farms and agricultural businesses in my district. Their profit margins are exceedingly tight and only getting tighter with inflation and input costs. While the producers and operators in my district are ahead of the curve in climate-smart and energy-smart policies, the REAP program helps them to get the funding they need to install energy efficient technology.

While small- and midsize farms in my district are doing much better on these energy-smart practices, historically, midsize and small farmers are hesitant to undertake conservation practices because of the negative economic impact it can have on their operations. Can you tell us today, how is REAP able to deal with this,

and is there a need to adjust title II programs to allow smaller producers some up-front assistance on these types of projects?

Ms. TORRES SMALL. Congresswoman Hayes, thank you so much for that question and for really looking out for farmers and their ability to both make investments in renewable energy work immediately for their bottom line and invest into the future. That is certainly our goal at Rural Development. And one of the keys to that is making sure that REAP is accessible both in terms of the application process and trying to find ways to simplify that process but also recognizing the large backlog of applications that are certainly out there.

I think you are absolutely right that we can find ways to make the application process easier, and part of that is the technical assistance. Rural Development is unique in a lot of ways, but one of it is its presence on the ground. We have 47 state offices, over 450 offices throughout the United States, and so being able to provide that technical assistance is one component of that.

To speak more on this, I will defer to Administrator Neal.

Dr. NEAL. Yes, thank you so much for the opportunity to talk about this. I mean, one thing that is important is, obviously with REAP, we have both guaranteed loans and grant programs as well. Two-thirds of the grants are for less than \$20,000, so that is really the bulk. So when we are thinking about small operators or small projects at least, much of that need—or the program is more sensitive to that need given that $\frac{2}{3}$ of the grants are for those projects under \$20,000. So that is something we are thoughtful about. Of course, we recognize that there are certainly unfunded projects, applications that are submitted that might be high quality but that are not able to be funded, given the amount of funds that are available. So we look forward to additional support for that program so that additional need can be met.

Mrs. HAYES. Thank you so much for that. I spend much of my time on this Committee advocating for small- and medium-size farmers because those are the people in my district, and I want to make sure that the work that we are doing on this Agriculture Committee includes all farmers and the entire agricultural community.

In my district, UConn Extension does an amazing job to educate farmers on renewable energy options for their farms. What role can the extension services play in educating farmers on the benefits of energy efficiency options in their operations, and what are some of those options for small- and medium-size farmers?

Ms. TORRES SMALL. Congresswoman Hayes, that is such a great question. One of my favorite visits so far was in Florida where I got to meet with the extension service and talk about how our programs could support the people, the farmers that they were talking to every single day, making sure that we are working throughout USDA to be able to better assist and be there for farmers in the spaces they need most. We are certainly interested in continuing to work to get information out through extension services and also get feedback through extension services in order to find ways to make our programs more accessible.

Mrs. HAYES. Thank you, Under Secretary Torres Small, and I have to tell you, you have to get to Connecticut to visit our exten-

sion programs. It is amazing to see the investment that they have in young people and building up the next generation of our agricultural producers.

Mr. Chairman, that is all I have. I yield back.

The CHAIRMAN. Thank you. And now the gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman. I appreciate it. Under Secretary Torres Small, good to see you again. Thanks for being here. Of course the topic of renewable energy in the ag sector is extremely important, and there are a lot of facets we need to continue to look at here. So I think I would like to first lead off, when we leave out on the overall grid, the overall renewable portfolio, we have to recognize that hydroelectric power that is so abundant in many parts of our country has to be recognized as truly renewable. And if it rains, it renews. And we are looking for the concern being carbon dioxide, and we also have to recall that nuclear power is a carbon-free source of generating electricity.

But shifting gears here to things a little more centric towards the farm bill and agriculture in general, as you know, my area of my district and a lot of the western states have a massive amount of biomass available, sort of forested areas, as well as ag waste from orchard prunings and other waste products that are a byproduct of agricultural operations. So putting biomass at the top of the heap here would be very important as a means of producing electricity and other forms of power that can be, other forms of energy that can be derived from them as well.

So looking at the landscape since the 2018 Farm Bill where the extension was made in the community, what energy and what innovation program which provides financial assistance for the installation of wood energy systems, how are we doing as far as new facilities coming in place or being in plants that will be coming online soon as a result of this farm bill, Energy Title back from 2018? Are we seeing much happening on that in order to use some of this wood product that, again, we are so overabundant in western states and my district to put that waste product to work for us instead of being the next million-acre fire in our forests?

Ms. TORRES SMALL. Congressman LaMalfa, it is always wonderful to see you, and I really appreciate your thoughtful question about the different types of renewable energy and how we can diversify that portfolio. When it comes to woody biomass, there is a program within the Forest Service which isn't within Rural Development's direct purview, but we will be happy to connect you on some of the opportunities there related to the Forest Service and their woody biomass program. In addition, the B&I Guaranteed Loan Program may be accessible in terms of a loan, a guaranteed loan for some of those investments, as well as REAP if the program qualifies.

To speak a little bit more about the way Business and Industry Guaranteed Loan Program works, as well as REAP, I will defer to my colleague, Administrator Neal.

Dr. NEAL. Thank you. I really appreciate that question. I think one of the things that we do is we try to look for the ways of which we can make the dollars go farther, and guaranteed loans are a way of doing that. And so the Business and Industry Guaranteed

Loan Program provides up to 80 percent guarantees on loans of up to \$25 million typically and can be used for a variety of rural small business purposes, including things like what you may be suggesting there.

In addition, the REAP program supports a variety of technologies. The solar work is predominant, but that does not mean these other projects are not competitive. They certainly are. And so we welcome those applications as well through both the REAP Grant Program and the REAP Guaranteed Loan Program. So I think there are a number of opportunities there to be thoughtful about this work to help advance the kinds of technology there.

The other piece I would mention, too, is what is typically often called the section 9003 Program, the Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program.

Mr. LAMALFA. Well, let me reclaim my time. I am sorry. The existence of the programs is positive, is good, but how will they be implemented into actually getting facilities built or at least on the way to being built to utilize these materials and turn them into energy? How well are we doing since the 2018 Farm Bill has extended that initial program in other areas?

Ms. TORRES SMALL. Thank you so much, Congressman LaMalfa. And I think that this is a good fit for the section 9003 Program in terms of the large-scale investments that may be necessary, so I will defer to Dr. Neal on that.

Dr. NEAL. Yes, I would appreciate, and we certainly would welcome the opportunity to share more and to research and get back to you about any particular projects that are specific in terms of woody biomass that have been used in section 9003. I don't have that data on me right now.

Mr. LAMALFA. I guess my bottom line when you get back to me is what is actually being built or what is far along in the planning stage that we can count on then coming online? That is what I am looking at. So thank you. I will yield back.

[The information referred to is located on p. 527.]

The CHAIRMAN. Thank you. And now the gentlewoman from Ohio, Ms. Brown, is now recognized for 5 minutes.

Ms. BROWN. Thank you, Chairman Scott and Ranking Member Thompson, for holding this hearing today. Under Secretary Torres Small, it is great to see you again so soon after your visit to Cleveland last month, and thank you to your colleagues Dr. Neal and Mr. McLean for being here as well.

It is no longer a luxury to have access to fast and reliable broadband internet service; it is a necessity. From virtual classrooms to telehealth doctor visits, being able to utilize high-speed internet is needed by everyone, regardless of where they choose to live. In the 2018 Farm Bill, there was a specific set-aside in the Smart Utility Authority for construction of broadband infrastructure for underserved non-rural areas like much of northeast Ohio. As we look to the next farm bill, how widespread has the Smart Utility Authority been utilized, and what changes might be needed, going forward?

Ms. TORRES SMALL. Congresswoman Brown, thank you so much for your focus on broadband. And certainly within the context of energy there is a clear nexus there in terms of opportunities for

utilities to utilize that broadband as well to make sure their energy is most efficiently used, as well as to provide it across the country through, for example, rural electric co-ops.

To speak more specifically about the program, I will defer to my colleague Administrator McLean.

Mr. MCLEAN. Well, thank you very much, and thank you for that question about Smart Utility Authority. It is one of the great innovations of the 2018 Farm Bill, and I am delighted to report that in the RUS Electric Program we have utilized that authority about ten times since its creation to be able to devote up to ten percent of a project cost for retail provision on broadband. And we are seeing electric service providers leveraging their smart grid investments and to use the Smart Utility Authority to kick it up a notch and increase that investment to be able to provide the retail provision of broadband. This is in addition to the wonderful support that Congress has given RUS in the ReConnect Program and our Broadband and Telecommunications Loan and Grant Programs. And we have just a tremendous response to our last funding round, which we are now evaluating. So we are grateful for Smart Utility Authority. It has been very useful, and we look forward to its further availability.

Ms. BROWN. Thank you for that. One further question on this. How do you think the USDA Office of Rural Development can work with other agencies to bridge the urban-rural digital divide so that no one is left behind?

Ms. TORRES SMALL. Congresswoman Brown, that is such an important question as we see the multiple ways that Congress has chosen to invest in closing the broadband gap. We see Rural Development as a key partner in that work, recognizing that we will only achieve this through true collaboration. And what Rural Development brings to the table really is an expertise in rural areas, a connection to some of the most likely providers like rural electric co-ops, for example, or our local telecoms, also finding opportunities to be able to assist when it comes to working in Indian Country, for example, and our long-standing relationships in areas that don't always get the service that they need.

To speak a little bit more to that coordination, I will defer to Administrator McLean.

Mr. MCLEAN. Yes, well, thank you very much. And there is extremely strong coordination between the Federal agencies that were entrusted with broadband responsibilities, both in the Rescue Act, as well as the bipartisan infrastructure bill. So the NTIA, National Telecommunications and Information Administration, part of the Department of Commerce, the Federal Communications Commission, and the Rural Utilities Service have a long-standing memorandum of understanding where we collaborate with each other, share data, try to make sure that our programs feather in with each other. And we work closely as well with the Department of the Treasury, who had American Rescue Plan Act of 2021 (Pub. L. 117-2) authority to be able to support broadband and are working across the Federal agencies and look forward to working even more with states as our sister agencies are releasing broadband funds for state investment.

Ms. BROWN. Thank you. Mr. Chairman, with that, I yield back.

The CHAIRMAN. Thank you very much. And now the gentleman from Illinois, Mr. Davis, is recognized for his 5 minutes.

Mr. DAVIS. Well, thank you, Chairman Scott, Ranking Member Thompson. Xochitl, great to see you again. Congratulations, Madam Under Secretary. I look forward to working with you.

I am glad we are here talking about this issue. However, I do think a timelier and more appropriate title for this hearing would be the energy crisis every family in America is experiencing because of the Biden Administration's misguided inflationary energy policies. I appreciate the opportunity, though, to discuss energy policies with all of you.

Gas 2 years ago was \$1.97 on average. Now, it is \$4.17. That is an increase of over 100 percent. This is proof that our USDA energy programs are more important now than ever but also proof that this Administration, I don't believe, is utilizing them well enough. As ag input costs continue to rise, prices at the pump continue to rise, and inflation continues to decimate rural America, I am disappointed that once again we aren't discussing the issues that matter most right now to our producers and our families right here in this Committee. We need to do better.

This Administration promised our ethanol and biofuels producers the world during the campaign and has failed on every single point. And, in turn, gas prices continue to soar and our farmers are left behind. Last week, I sent a letter with several of my colleagues on this Committee asking the Biden Administration to prioritize domestic energy production, including making permanent year-round E15. And again we asked the President to simply uphold the law and reverse its course on the proposed cuts to the RVOs, renewable volume obligations. To make matters worse, funding from the CARES Act (Pub. L. 116-136, Coronavirus Aid, Relief, and Economic Security Act), which was enacted over 2 years ago, included funds to provide pandemic-related economic relief to ag producers of all types.

In December 2020, the omnibus extended explicit authority to the Department to provide this relief to biofuels producers. In December of 2021, a year into the Biden Administration, the Department finally announced a \$700 million biofuel producer program to provide economic relief to our producers to restore renewable fuel markets affected by the pandemic. And yet, amid what I would consider a fuel crisis on top of an inflation crisis, the producers who can help decrease our fuel costs immediately are still being left behind and have yet to see any of these funds as we in Congress have directed.

I don't understand why this Administration has such an aversion to rural America, especially given the rising gas prices related to the ongoing conflict in Russia and the ban on oil imports on top of existing and misaligned ban on drilling in the United States. But regardless, Madam Under Secretary, my question is why have our biofuels producers still not seen any of these funds?

Ms. TORRES SMALL. Congressman Davis, I deeply appreciate your focus on rural America and your shared belief that USDA has a vital role in making sure that we are addressing these challenges from the increased cost at the pump to supporting local markets and biofuels. I am eager to make sure that we are delivering those

\$700 million, recognizing that the application closed in February, and so we will be focused on getting them out late spring or early summer. I look forward to keeping in touch with your office to make sure that you receive up-to-date information on that.

In addition, as we look at what the investments are to take on the challenges recovering from COVID-19, it is also about making sure that, as you mentioned, that fuel is more accessible across the country. And Rural Development's opportunity there really is the HBIIP (Higher Blends Infrastructure Incentive Program) program, making sure that we have the technology on the ground to get out that higher blend of biofuels. And so we are also proud to have invested \$100 million in the HBIIP program, and that will be happening in the spring, the applications for that.

To speak a little bit more about the biofuels program and the emphasis there, I defer to Administrator Neal.

Dr. NEAL. Yes, this is an important issue, so I really appreciate the question and your interest in this important work. We are excited about the opportunity and really welcome the opportunity to help people have choices at the pump, to help supplement the current fuel with all kinds of things, additional kinds of activities like biodiesel, like ethanol through the programs that we just heard the Under Secretary talk about, the Biofuel Producer Program, the HBIIP program, which is going to provide the infrastructure that is necessary. These are the kinds of things that help make sure that our energy stream is reliable, that it is affordable, that it is clean, that it is accessible to people. And so that is really the work that we are doing through these programs. We look forward to opening this program to making the announcements very soon for the Biofuel Producer Program and to opening the Infrastructure Incentive Program as well.

Mr. DAVIS. Well, I certainly look forward to those announcements. You can sense my frustration, the frustration of a lot of rural Americans. But I do support Rural Development, and I really look forward to working with both of you and seeing those announcements soon. Thank you. I yield back.

The CHAIRMAN. Thank you. And now the distinguished gentleman from Illinois, Mr. Rush, is now recognized for 5 minutes.

Mr. RUSH. I certainly want to thank you, Mr. Chairman, for this outstanding hearing this morning. Madam Under Secretary, it is such a delight to have you back in the Congress before this Committee, and you have really made us all very proud of you in terms of your work for the Biden Administration and for the American people.

As chair of the Energy Subcommittee of the Energy and Commerce Committee, I am continually concerned about the impact of any new costs on our nation's farmers and, specifically, the energy costs as it relates to minority farmers and consumers. I think that they have been too often overlooked. In your testimony, you mentioned that energy efficiency in rural communities can explicitly be an equity issue in addition to a cost issue. Explain what you mean by that.

Ms. TORRES SMALL. Congressman Rush, would you mind just restating the last part of your question? I just want to make sure I answer it correctly.

Mr. RUSH. Okay. Can you talk about how energy costs disproportionately burden certain rural communities more than others and how investments in energy efficiency will help to reduce those inequities?

Ms. TORRES SMALL. Thank you so much, Congressman Rush. And it is such an honor and joy to get to see you on this Committee. I really appreciate your question about how the cost of energy can disproportionately impact rural communities and how investment in renewable energy can also greater impact the work that is done across rural America. So when you are looking at travel to rural areas, if you are driving hours to get somewhere or if you are trying to, for example, construct homes and so having to lug large amounts of equipment to rural areas, the impact of energy can be incredibly high. And so it can impact rural areas in a way that is even greater than perhaps the impact in urban areas. Likewise, when we can create and support local markets that are supporting diverse energy sources, it gives us an opportunity to impact rural areas in a similar way.

Mr. RUSH. Thank you so much.

Ms. TORRES SMALL. Did I answer your question?

Mr. RUSH. Yes. Thank you. Let me ask you another question, Dr. Neal, this question. First of all, I am so delighted that one of the missions of the USDA's Rural Business—Cooperative Service is to include the effectiveness of programs serving cooperatives. Can you discuss these programs, whether the programs are only open to rural communities, and what best practices have you developed to [inaudible] millions to cooperatives under your jurisdiction? And additionally, is there severe need for more cooperative arrangements in rural and minority farming communities?

Ms. TORRES SMALL. Thank you so much, Congressman Rush. I will defer to Administrator Neal to speak to the work that is done specifically to cooperatives and how Rural Development is working to invest in that.

Dr. NEAL. Thank you. We are really proud of our heritage of supporting cooperatives for I think over 100 years at this point, and so we continue that and are excited to continue to have the Rural Cooperative Development Grant Program, the Socially Disadvantaged Groups Grant Program that specifically support cooperatives, in addition to the technical assistance that we provide through our cooperative services branch. I think it is important to note that many of our programs are also open to cooperatives, very intentionally open to cooperatives. We designed, as an example, we mentioned earlier today the Food Supply Chain Guaranteed Loan Program that was specifically designed to include and be inclusive of cooperatives in that program. And so we want to make sure that cooperatives have access to all the kinds of programs, although there certainly are some specific activities that are specific to cooperatives.

I would like to say, if I may, just one other thing, too. The Rural Energy for America Program was the pilot program at USDA for the environmental Justice⁴⁰ project, and so I think that is one of the ways when we think about our REAP program is now serving as a model throughout USDA and to some extent throughout the Federal family of how to measure those kinds of impacts. And we

are pleased to sort of understand how that disproportionate impact of energy cost can be remedied through programs like REAP and other kinds of things that are out there.

Mr. RUSH. Thank you very much, Mr. Chairman. I yield back.

The CHAIRMAN. Thank you very much. And now we recognize the other distinguished gentleman from Georgia, Mr. Allen, for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman. And, Under Secretary, I have to be honest with you because I feel the frustration and the pain and suffering of the American people. I don't know how this Administration sleeps at night with what is going on in this country. You had two of the top CEOs of both BlackRock and J.P. Morgan, and they have stated that this economy, that we currently have unprecedented risk dealing with the current economy. I don't have a crystal ball, but I do come from the business world. And the dashboard looks very bleak in this country right now. And of course that is probably one of the reasons that Putin took the risk he did, because we are very, very vulnerable. And it is sad. It is very sad for this country.

And do you know that right now there is a diesel shortage in Europe, and the Ukrainians aren't even going to be able to plant because they can't get diesel fuel, and we can't even help them because we are going to have a shortage in this country? I mean, folks, we have to wake up and realize what is at stake here. I mean, our very survival as a nation could be at stake here. There are adversaries out there that want to take our way of life away from us. And you are helping them. I don't understand it.

But let me just ask you this. Two years ago we were energy-independent. We were helping Europe with LNG. We weren't sending \$75 million a day to Russia for oil to finance their war against the poor Ukrainians. Would you be in favor of releasing the energy economy in this country to avert the possible devastation of our economy? Would you be in favor of that, or are you still going to hang with, well, the government is going to keep spending money to explore alternative energy, and in the meantime we have no country left. I mean, where are you on that?

Ms. TORRES SMALL. Congressman Allen, I recognize that you disagree with the Administration in many places, but I hope that we can share—

Mr. ALLEN. I don't disagree with the Administration. I am telling you what every corporate executive, every business in this country is talking about. This Administration is going to destroy the country.

Ms. TORRES SMALL. I wake up every single morning thinking about how I can better serve rural America, and I think that is something that we share. And so when it comes to addressing the challenges that are immediate, making sure that we are supporting farmers, that we are supporting local, rural economies in the ways they best know how, Rural Development is there to help incentivize that, to provide some of the financing that is crucial to do that work. And when it comes to taking on the long-term risks for our society, when it comes to taking on the long-term risks for our energy resiliency, Rural Development is also there to invest in the opportunities and the innovation that we see across rural America.

Mr. ALLEN. So like what are we going to do about energy?

Ms. TORRES SMALL. So we are investing both in the immediate needs when it comes to supporting biofuels, when it comes to supporting local markets for renewable energy. Also, the long-term—

Mr. ALLEN. The only thing that is going to save this country is to unleash our energy economy. That is the only thing that is going to save us. Are you for or against that?

Ms. TORRES SMALL. Now, sir, when it comes to Rural Development—

Mr. ALLEN. I am not talking about Rural Development. I am talking about everywhere. Yes, it is going to affect rural America for sure, but I need a yes or no from someone who represents this Administration. Are you going to let this country absolutely fall apart, destroy the country when we have the opportunity to remove all the pain and suffering just by unleashing our energy economy like the previous Administration did?

Ms. TORRES SMALL. Congressman—

Mr. ALLEN. Yes or no.

Ms. TORRES SMALL. Congressman, I am not clear on what the question is.

Mr. ALLEN. You are not clear? Okay. Say, for instance, if we don't unleash our energy economy, it is going to destroy our nation. That is the crystal ball I see. That is what these executives are saying. So would you be for unleashing—would you advise the President to unleash our energy economy, everything we have, to fight Putin and the rest of the world and to survive as a nation?

Ms. TORRES SMALL. So, Congressman, from my standpoint in Rural Development, we are working to unleash every opportunity we have in energy resiliency both to address the short-term and the long-term risks that we face.

Mr. ALLEN. Okay. Well—

The CHAIRMAN. Thank you very much. Thank you, Mr. Allen. And I can assure you I have spoken with the President on his priority for rural America, and I assure you they are moving very aggressively.

And now, the gentleman from Arizona, Mr. O'Halleran, is now recognized for 5 minutes.

Mr. O'HALLERAN. Thank you, Mr. Chairman and Ranking Member, for organizing this important meeting today. I also want to thank the witnesses for their participation today, for helping this Committee prepare for the upcoming farm bill.

So, first of all, I would like to get a couple of issues out of the way. Liquefied natural gas, we are the largest exporter in the world starting the end of this year. There are only two other countries that are even close. We have 11 million acres right now of oil and gas leases available, and in the time that those leases have been available out there, the industry itself since 2014 has contributed or invested \$650 billion in 2014. They are down to investing between \$300 and \$250 billion a year now. They have to invest money on the leases that they have to produce the oil and gas that are necessary for us today. And corporations throughout this country are not.

We are undergoing tremendous inflation right now, but it is because of a pandemic for 2 years. It is because of a war that is going

on now. It is because the rest of the corporations in America are investing in America. And that is what we have to do, work together to invest in the future of America.

And with that, I will go to the other part of my testimony.

Under Secretary Torres Small, welcome, great seeing you, and I look forward to seeing you in my district in a couple weeks. I know you have deep expertise working with rural southwestern communities and understand the impact a single plant closure can have on our economies. Coal plants across the West are scheduled to shut down within the next 5 to 10 years across America, and most of those are in rural America. Within the transition, we must not forget about the hardworking rural communities that currently depend on coal plants for good-paying jobs.

Over the last few years, northern Arizona has been coping with the Navajo Generation Station closure, NGS, as one of the largest plants in the West. It generated 65 percent of the Hopi Tribe's budget and a large portion of the Navajo Tribe. We are expecting several more coal plant closures like this in northern Arizona over the next decade. There needs to be an acknowledgement in America that rural and urban depend on one another. It is not just one or the other, and that is important.

Why in rural? Well, that closure is a regional closure. It is not a town or city closure. It is a closure for the school districts, the fire districts, the community colleges, the healthcare industry, and cities and towns throughout that region. It is imperative that we help these regions out in a larger context.

And so I just hope that we start to acknowledge that here in the Committee. I know we care, all of us, about rural America, but we also have to show that we care. And so far, we have taken baby steps in that.

Under Secretary Torres Small, how can we ensure we are adequately supporting rural communities as fossil fuel employers shut down and they seek to attract new employers, often in the renewable energy space? Are there specific farm bill programs that should be strengthened? Thank you.

Ms. TORRES SMALL. Thank you so much, Congressman O'Halleran, and for your question about the impact—well, for your question but also for your focus on communities. As markets transition and change, specifically with coal, we have seen Rural Development have a key role in this place both in terms of investing in new projects and electricity generation in nearby areas. But also one of the key factors for Rural Development is recognizing there are multiple facets of an economy, so focusing both in terms of creating jobs from an energy space but also what other local markets are out there that Rural Development can help invest in.

To speak to the energy piece and how we can work to make sure we are investing in renewable energies in rural communities that have had a history of energy production, I will defer to Administrator McLean.

Mr. McLEAN. Well, thank you very much. And thank you for mentioning the Navajo Tribal Utility. It is one of the longest-serving relationships that the Rural Utilities Service and our predecessor Rural Electrification Administration has had and a relationship in water and telecommunications, as well as energy. And one

of the projects we are very pleased to approve was a very major investment in Navajo Tribal Utility last year, a \$235 million loan. And Navajo Tribal Utility is also one of those ten projects I referenced that utilizes Smart Utility Authority to be able to leverage their investments on electric smart grid investments to be able to extend broadband to the Tribal community. And they are also a good example of seizing the future because we have also made major investments in their solar operations, and they are looking for ways to export power to urban areas so that urban-rural mix and linkage is really evident there. And so we are grateful to this Committee for section 317 of the Rural Electrification Act, which allows us to invest in renewable energy projects that serve rural and non-rural customers, as well as hydro projects.

So the Navajo Tribal Utility is managing a very difficult adjustment, but it is doing so, optimistically, with a view towards the future.

Mr. O'HALLERAN. The Chairman's eyes are on me. I am going to have to yield back. Thank you very much.

The CHAIRMAN. And thank you. And now the gentleman from Nebraska, Mr. Bacon, is now recognized for 5 minutes.

Mr. BACON. Thank you, Mr. Chairman.

During the Presidential campaign, this President multiple times said he was going to be hostile to the fossil fuel industry of our country. He said he was going to cut fracking, he was going to reduce natural gas production, he was going to stop new leases on Federal lands, and he did this on the first day. So I have to respond to some of the comments made here on this.

Two-thirds of the gas prices have gone up before the Ukraine invasion. Now, we have to be candid. The Ukraine invasion exacerbated what is going on here, but $\frac{2}{3}$ of this had already occurred. I can tell you the fossil fuel industry in our country knows they have a hostile Administration, and they have responded accordingly because they can't trust that their investments can be protected. And so I think that is as much of the backdrop here.

With that said, I want to recognize the Under Secretary. Thank you for being here. Congratulations on your position. And, as you know, we have typically multiple hearings at once, so I have had to step in and out, so if I repeat any of this, I apologize. But it is good to see you. Thank you for your leadership.

I will tell you, the numbers, I think the second most popular position or issue right now in our district is American energy independence. I would say inflation is probably the number one issue, but they are related obviously when you talk to—most folks in our district want energy independence. We want an all-of-the-above approach. They are not hostile to solar or wind, but they also know they need natural gas. They are looking for all of the above. They also want American innovation to contribute to that.

With that said, I have met with the biofuels industry today, whether it is the corn producers, the soybean producers, or many of the folks who are in it, and they said that the Administration has not been keen on their industry in the biofuels or ethanol, that they feel like they are last place on this whole pecking order. What is your take on this? Because that is their impression. I heard it straight from them. They feel like they have no voice in this Ad-

ministration, and they feel like they are last in the pecking order. How would you respond?

Ms. TORRES SMALL. Congressman Bacon, I know that Secretary Vilsack, as well as President Biden, are focused on the diverse portfolio that we need to be energy-independent and resilient. And biofuels is a key part of that. And I hope that the biofuels industry feels like they have a strong voice in Rural Development because we have been focusing a lot of energy to making sure—pun intended—to making sure that we are investing in that exact type of local market that really creates resiliency both when it comes to energy but also on the ground.

When I was in Iowa getting to see Elite Octane, for example, and the work they were doing, their use, their reliance on a REAP grant to make their production more effective and efficient, I was really impressed by the work that they were doing and the impact that that was having on the community where I spoke with young engineers who were able to stay in their hometown because of that local economy.

To speak a little bit more about some of the programs that we have to support biofuels, I will yield to Administrator Neal.

Dr. NEAL. Thank you. I appreciate the opportunity to speak more about this.

Mr. BACON. Thank you.

Dr. NEAL. We have a real commitment to homegrown biofuels in large part because they provide an opportunity to diversify our sources of fuel but also because they help support the producers in exactly the kinds of ways that we heard from the Under Secretary. So we see there are a number of opportunities there. We want to be able to support those through our variety of programs both for our producers but also for the technology and also for getting it to market as we think about the infrastructure necessary, for example, for higher blends to be available—

Mr. BACON. If I may just do a follow-up. I appreciate the words you are saying. I have just talked to like ten of these leaders from different, whether it is producers, corn, soybeans, and that is not the feedback I am getting, at least as of this morning. So I can't remember the date, I think it is June where the E15 mandate goes away. What are we doing? What is our response to that? Because I think that is really looming large on this industry, what is going to happen.

Ms. TORRES SMALL. Congressman Bacon, that is a really good question. And so when it comes to the science of the determinations about RFS, EPA is in charge of that. Rural Development has a key opportunity to make sure that we are supporting the business side of biofuels. And so as we look to this spring both where we look at the disbursement of that \$700 million in terms of impact from COVID-19 and then also opening the applications for the \$100 million for the HBIIP program, I hope that we will be able to work hard to be there on the business side for biofuels.

Mr. BACON. I will just close with my last few seconds. Forty percent of our corn goes to ethanol, so this is huge, so this is such an important part of the Midwest economy. So I appreciate your commitment to that, thank you. I yield back, Mr. Chairman.

The CHAIRMAN. Thank you. And now the gentleman from California, Mr. Carbajal, is now recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. And thank you to my friend and former colleague, Under Secretary Torres Small, for your testimony and to Dr. Neal and Mr. McLean for being here today. It is great to hear about USDA's commitment to fighting climate change and the steps already being taken. My district has already felt the devastating effects of climate change from severe droughts to intense wildfires. Investing in renewable energies and transitioning away from fossil fuels is crucial in mitigating the effects of climate change. I represent the rural communities, and you are right that rural communities need a seat at the table.

Under Secretary Torres Small, can you walk me through Rural Development's process in identifying rural communities with the potential to lean into clean energy transition? What kind of outreach does Rural Development do, and how can Congress help ensure every rural community knows about these programs?

Ms. TORRES SMALL. Congressman Carbajal, it is so wonderful to see you. And I deeply appreciate your question about how we make sure that the programs within Rural Development, the opportunity within Rural Development, are truly reaching rural communities across the country. It is one of our special assets that we have 47 state offices and over 450 offices with people on the ground committed to that program delivery. And we talked a little bit today about the reinvestments that we have made in terms of staffing, which we certainly see as our greatest resource on the ground.

And there is still work to do in terms of increasing that outreach. We are identifying places that we haven't reached out to in the past or communities that haven't received any type of Rural Development investment for the last 5 years. How do we now expand to make sure that no matter how small your community is or if you don't have a grant writer, which is the vast majority of the places where we work, that we are still reaching those communities and supporting their work through technical assistance?

To speak about the outreach that is done on the energy side, I would love to actually tap in Administrator McLean to talk about that.

Mr. MCLEAN. Great. Well, yes, thank you very much. And we are very, very excited about the growth we have seen at the Rural Utilities Service in renewable projects, more between Fiscal Year 2020 and 2021. We more than doubled our level of dollar investments from just over \$100 million to nearly \$200 million, a 50 percent increase in megawatts in the portfolio. And so renewable energy is taking off really across the country, and we are seeing that, as you say, Congressman, leaning into that, that communities are doing that.

Also energy efficiency is another great inflation-fighter and very friendly to the environment because it takes traditional fuels 3 units of energy to produce 1 unit of electricity. If we could save 1 unit of electricity, we are saving 3 units of energy. And we are seeing programs like the Rural Energy Savings Program working with rural electric cooperatives and other utilities to be able to encourage relending for energy efficiency as being a real positive.

The last fiscal year we were able to finance 16 individual solar projects at RUS, a microgrid project and a hydroelectric project, all growing the portfolio for renewables. And we are seeing interest grow. Our pipeline is filling with additional projects in that arena as well.

Mr. CARBAJAL. Thank you. Under Secretary Torres Small, the need to invest in renewable energies is becoming more important than ever as it will allow the United States to be more energy-independent, and we have seen global oil costs skyrocket because of the Russian attack on Ukraine. Can you expand on how biofuels can play a role in our national energy independence? How should we be weighing investments in different renewables through USDA programs, and how can we continue supporting the deployment of renewable energy sources in rural communities?

Ms. TORRES SMALL. I really appreciate this question because it shows how complex our energy portfolio is and will need to continue to be. There are all sorts of different energy uses, whether it is transportation or whether it is electricity, whether it is manufacturing. And the way that we invest in that is going to require different answers. And so a vital part of that is investment in biofuels, especially as we look at transportation, and that is why Rural Development has worked so hard to invest in those programs.

And because we are out of time, I will just say HBIIP and \$700 million for COVID-19 impacts are certainly a big place where we are doing that work.

Mr. CARBAJAL. Thank you. I am out of time, Mr. Chairman. I yield back.

The CHAIRMAN. Thank you. And now the gentleman from Indiana, Mr. Baird, is now recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman. I appreciate the opportunity to be here. I appreciate all the Under Secretary and the staff being here.

As we are all feeling the pain when we fuel up at the pump, we see the increasing prices, and it just seems to me that now would be a bad time to remove some of the choices in our fuel supply chain. And by that I mean what is going to happen or what has happened when we do not correct for the Reid Vapor Pressure and provide for year-round use of E15 ahead of the June 1st deadline and sales cut off. So what is USDA and the broader Administration feel about doing or correcting this situation?

Ms. TORRES SMALL. We are focused on making sure we are delivering for the biofuels industry in the way Rural Development best knows how. So although we are not the decision-maker on some of the decisions you recently noted, we have a key opportunity to be there for biofuels producers in a few different ways. So we have talked a little bit about the \$700 million, applications closed in February, payments should be coming online in late spring or early summer, as well as the investments in the technology that brings those higher blends to communities, so having the right gas pumps, for example. And the HBIIP program is the one that best can be there for communities in doing that work, so the investment of \$100 million there.

In addition, the first biofuels production that I visited were recipients of REAP. And I think there is a really unique opportunity to align there where we are making the production of biofuels more energy-efficient and more economical in and of itself, whether it is a high-tech grain producer dryer to process for a biofuels plant or whether it is a low-tech but a replacement for a really old grain dryer on the farm that is making that work more energy-efficient and affordable for the farmer.

To add some additional comments on the work for biofuels, I will defer to Administrator Neal.

Dr. NEAL. Thank you. I appreciate that question. I think one of the things I will just sort of highlight in addition to some of the comments that have been previously made is thinking about the variety of feedstocks that is available to go into biofuels. And I think what is one of the places where when we look at our work in REAP, when we look at our work in the section 9003 program, I think about biorefineries, what are the variety of feedstocks that are available that producers, frankly sometimes it may be even waste that can be used to turn waste or other kinds of feedstocks into fuel, into energy for the kinds of needs that we have.

And so I think as we—in addition to thinking about supporting businesses through difficult times like we are doing with the Biofuel Producer Program, supporting producers as they grow the kinds of feedstocks that we need intentionally for the development of biofuels, as we think about the support of various technologies through REAP or through the section 9003 program, I think it is also important to consider how a variety of different feedstocks from a variety of sources can be commercialized into production of biofuels, again, diversify the types of fuels that are out there and provide for more choices for people as they get where they need to go.

Mr. BAIRD. Well, thank you for that. I really appreciate being able to look at different opportunities and make sure we bring all of those along at the same time.

I do want to switch gears and look at another opportunity just to get a feel for how you and the Administration feel about it. But I am talking about methane digesters. They can really be used to turn a problem into an asset. And so I just want to know how the Administration feels about using methane digesters attached to livestock industry. A lot of those are terribly expensive. And so is there anything that you feel we could put in the farm bill that would help move that process forward?

Ms. TORRES SMALL. Congressman Baird, thank you so much for that question. It is something we haven't had a chance to talk about today but I think it is a really exciting investment. Both the Administration as well as of course Secretary Vilsack have expressed significant interest when it comes to methane digesters. And recognizing that there is a large gamut, whether it is a smaller digester or some of the bigger-scale ones that we are starting to see interest in now, there is key opportunities for them.

And to speak a little bit more about that, I will defer to Administrator Neal.

Dr. NEAL. Yes, thank you. We are excited about the work that so many are doing with anaerobic digesters. Part of what we see

is this can be funded through our REAP program but also through the section 9003 program, so, again, to accommodate the variety of sizes of different projects that are out there, I think that is important to have a variety of different choices of programs out there to support that work.

One of the things that has also been interesting to track and to note is how the products from those digesters are being used. So in addition to seeing projects that might sell methane to produce electricity, we are also seeing things where they are selling gas directly to the pipeline, and then we are also beginning to see, particularly with some of our section 9003 projects, places where there are digesters that are being used to make renewable chemicals. That is where we see a lot of opportunity in the renewable chemical sector.

Mr. BAIRD. Thank you.

The CHAIRMAN. And thank you so much. We are trying to get to everyone. I appreciate that.

And now the gentlewoman from Washington, Ms. Schrier, is now recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman. And hello, Under Secretary Torres Small. It is wonderful to see again, and thank you again for taking the time to come out to Washington State in February to meet with my constituents and farmers.

And I want to talk with you today about the Rural Energy for America or REAP program. REAP is an incredibly important program for farmers and businesses in Washington State and my district. And for the most part the program works well, but I would like to flag a few key issues and ask how we can make this program more effective.

First, I know the program is significantly oversubscribed throughout the country. In Fiscal Year 2021, there was \$1.1 million in grant requests from Washington but only \$752,000 or 65 percent of those, was allocated.

Second, I have heard concerns about REAP providing only reimbursements and covering only 25 percent of project costs, and that is an outlier. This can be a real equity barrier for smaller producers who may not be able to put up 100 percent of the project costs up-front or get a loan to be able to cover those up-front costs. And compared with similar programs, 25 percent of the cost-share seems low. I know some of this may fall to Congress, but in order to serve more applicants and accelerate the adoption of renewable energy projects, I think we should look to increase this cost-share rate and increase the total funding available in the REAP program.

Finally, I am concerned about farms and businesses in peri-urban and ex-urban areas. Case in point would be the farm that you and I visited together. Folks in Pierce County in my district are geographically not far from cities like Seattle and Tacoma, and thus may be excluded from participation. But the areas we live in, as you saw, practically speaking, are quite rural. And this will continue to be an issue as kind of urbanization encroaches on rural areas.

So a question, Under Secretary Torres Small, I just want to ask how we can make REAP easier for folks to use, and is there a way

that we can incorporate these peri-urban and ex-urban farmers and businesses in the program?

Ms. TORRES SMALL. Thank you so much for your careful attention to farmers and their needs and how we can best serve them through REAP. It certainly is something we are eager to provide technical assistance on as you look at the farm bill, recognizing that REAP is one of the most popular programs, and so that over-subscription that you mentioned, certainly we see it on the ground when folks are interested in the program. Also, when it comes to the cost-share piece, which really depends on the demographics of the application, and for that I will defer to Administrator Neal. And then also the access piece both when it comes to where something is located but also in terms of how do we just make it easier with the application process, which is something we are focusing a lot of attention on.

So to speak more specifically to that, I will defer to Administrator Neal.

Dr. NEAL. Thank you again for the opportunity to speak about this. Just a couple things I would share. I think, one, in addition to providing technical assistance to make sure that folks are able to submit the applications, they feel comparable with that and they can submit ideally a competitive and high-quality application, as we heard from Under Secretary Torres Small, I think we are looking at ways we can streamline the application process, make it more modernized. I think there are some ways that that can be done so that that not only makes it easier for the applicants but also frankly makes it faster, more efficient for us, for our team at RBCS to review those applications and score those applications. So we are looking at opportunities for that.

We certainly welcome the opportunity to talk with you all, provide technical assistance around how the program could be structured in terms of cost-share and those kinds of things. And, as we think about the definitions of *urban* and really of *rural* and what that includes, we try to be very intentional around that to stay in the lines of where our authority is and so, again, we welcome the opportunity to follow up with you if you have particular questions about that.

Ms. SCHRIER. I would love to follow up about that just because if our goals are to support family farms and to support renewable energy sources, reducing geographic limitations would be fantastic.

I have 22 seconds remaining. I just want to mention the importance of including hydropower in USDA energy programs. The Pacific Northwest produces some of the cleanest, most affordable energy in the country, and as a Northwesterner, I would like to see that included.

So thank you, and I yield back.

The CHAIRMAN. Thank you, Ms. Schrier. And now, the gentleman from Ohio, Mr. Balderson, is now recognized for 5 minutes.

Mr. BALDERSON. Mr. Chairman, thank you very much. And, Madam Under Secretary, thank you again for being here.

My first question is, as you mentioned briefly in your testimony, the 2018 Farm Bill mandated coordination between USDA and the Department of Energy on energy security issues. Could you expand

on this coordination and what are some of the results that this has yielded?

Ms. TORRES SMALL. Thank you so much, Congressman, for that question. And it is certainly something that we are focused on. We entered into in MOU with the Department of Energy in 2019 and actually have an upcoming meeting to further flesh out the opportunities there. But there are some key opportunities, whether it is looking at electric vehicles, for example, and the opportunities of joint investments and work there. Identifying priorities when it comes to cybersecurity is another potential that we have been looking into.

And to speak to some of that additional work, I will defer to Administrator McLean.

Mr. MCLEAN. Yes, thank you very much. And, yes, thank you. The 2018 Farm Bill provision on the Memorandum of Understanding between USDA and DOE have been very productive. We have had numerous conversations, coordinations in particular areas about cybersecurity, renewable energy, de-carbonization, quantification of de-carbonization, going forward, and in terms of also the agenda to be able to finance charging stations in rural areas where we think that we can leverage our loan programs against the grant programs that the Department of Energy has.

We notice, too, that the Department of Energy had a number of grant programs that will be eligible for applications among rural electric cooperatives, in particular out of the infrastructure bill, and we look forward to working with the Department of Energy to help leverage those resources with our borrower constituency and our stakeholders as well.

Mr. BALDERSON. Okay. Thank you both very much. Under Secretary, my next question is I have met with several energy producers in Ohio that operate some renewable energy programs. While they say that renewables such as solar are great supplements, they go on to say that a complete transition to renewables would be unattainable and will make it impossible to serve all their customers. I think everyone on this Committee on both sides of the aisle knows that it is unrealistic to fully transition rural America to renewables as quickly as this Administration would like to. Can you discuss the specific challenges that such a transition will have on rural America and America's farmers?

Ms. TORRES SMALL. Yes, I think Rural Development has a unique perspective of this in a few ways, one of course working with farmers and recognizing the impacts of energy dependence in rural America, as well as some of the opportunities when it comes to energy diversification in rural America, but also when it comes to our long-standing work in electricity and working with rural electric co-ops and some of the efforts that they have made to diversify their energy portfolio.

And so to speak a little bit more about that work and our unique perspective there, I will defer to Administrator McLean.

Mr. MCLEAN. Yes, thank you very much. And of course Rural Utilities Service's predecessor Rural Electrification Administration has a long-standing relationship with cooperatives and rural service providers in the State of Ohio. And one of the more exciting things that is happening in the industry is in the area of beneficial

electrification where we are almost considering it as rural electrification 2.0 where we are able to see the transformation of carbon-dependent machinery, transportation, industrial uses, switching over to electricity. And so the application of time and of technology, investment, and incentives I think will be able to get us to that transition, but we are also seeing a lot of dedication from the good people who do provide that energy in the State of Ohio and elsewhere, again, many of them longtime customers of our agency.

The CHAIRMAN. Does the gentleman yield back?

Mr. BALDERSON. Yes, Mr. Chairman, I thank them, and I yield back my remaining time. Thank you.

The CHAIRMAN. All right, thank you. And now the gentleman from California, Mr. Panetta, is now recognized for 5 minutes.

Mr. PANETTA. Great, thank you, Mr. Chairman. I appreciate this opportunity, and thank you for holding this important hearing.

Dr. Neal, Mr. McLean, thank you very much for being here. You have to understand, though, it is going to be a lot of sentiment directed at Under Secretary Xochitl Torres Small because of how beloved she was as a Member of Congress and how good it is always to see her on Capitol Hill. So, Madam Under Secretary, welcome back. You are always welcome on Capitol Hill. Thank you for being here.

I just want to talk to you about your testimony and what you addressed as energy security. You talked about a relationship between the USDA and the Department of Energy specifically dealing with funding on grid reliability. Let's focus on that right now and the partnership that you mentioned in your testimony. How is that going? Has it proven successful? And is there anything that we in Congress can do to support you and to support that relationship for grid security?

Ms. TORRES SMALL. Congressman Panetta, it is a joy, as always, to see you, and thank you so much for your kind remarks and for your focus on this partnership, which I think is really important and exciting. The first thing that you did, which the Congress did which I think was very helpful is requiring it in the 2018 Farm Bill. It got us to work in terms of that MOU. It got us to work in identifying the places where we can work together.

And the focus on reliability, certainly, from your experience in California, is crucial as we look to make sure that we have good ways to monitor electricity delivery, for example, under threats of extreme weather, also as we look at that reliability when it comes to cybersecurity, and that is why also our investments in the Grid Security Division has been crucial in Rural Development.

To speak a little bit more about that MOU, I will defer to Administrator McLean.

Mr. MCLEAN. Thank you very much. And yes, thank you for mentioning the relationship with the Department of Energy under the MOU. It has been a very productive and worthwhile engagement. We look to the Department of Energy for their scientific leadership, their innovation, and their demonstration projects. What we do at the Rural Utilities Service is we deploy the proven technologies. So those of you who know, Washington, D.C., we share 12th Street. The Department of Agriculture and the Department of Energy are next-door neighbors, and we look at that MOU

as to being the bridge across 12th street to be able to take the innovation that the Department of Energy is working on, the technology advancements that they are working on and bringing to the marketplace, and bringing it across into implementation in rural America through the financing that we can provide at the Rural Utilities Service.

Mr. PANETTA. Okay.

Mr. MCLEAN. And with relationship to those grant programs the Department of Energy has, we would be delighted to be able to leverage our loan programs to be able to stretch them out to get further activities financed in rural areas.

Mr. PANETTA. Okay. Thank you. And let me move on to my next topic if I could, Madam Under Secretary. Look, obviously, administering Rural Development programs, especially in California and in my district, we struggle because the designation of *rural* based on population density. And it impedes our ability for our communities and our farmers and ranchers to benefit from many of these programs. Madam Under Secretary, can you discuss the further need to revisit the definition of *rural* if you can and elaborate on how the current definition limits investment in rural economies?

Ms. TORRES SMALL. Congressman Panetta, thank you so much for your advocacy for your constituents. And I recognize the challenge that often the specifics of each program can have on the delivery and how each of your communities can access them. So Congresswoman Schrier also recently recognized this in terms of REAP. We stand poised to do what Congress tells us to do in this area and to provide all the technical assistance you might need as you address any challenges when it comes to accessibility to our programs.

Mr. PANETTA. Great. I look forward to working with you on that and many other issues as we approach the 2023 Farm Bill as well. Thank you for being here. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentleman from Kansas, Mr. Mann, is recognized for 5 minutes.

Mr. MANN. Great. Thank you, Mr. Chairman. And, Madam Under Secretary and our other panelists, thank you for joining us here this morning.

I represent the big 1st of Kansas, which is one of the largest ag-producing districts in the country. Last year, we did over about \$10 billion in ag products, something that those of us in the district are very, very proud of. In Kansas we have around a dozen ethanol plants and biodiesel plants combined. The majority of those are in my district. And I think everyone would agree that these investments have been huge for rural economic development over the last few decades. It has been jobs. It means increased demand for corn and sorghum, which improves the base, which dramatically, immediately impacts main street and all of our rural communities. It also provides wet and dry distillers grain that are then fed in feedyards all over the district.

Two weeks ago, I took Ranking Member Thompson, welcomed him to the district, we toured a feedyard, toured an ethanol plant, the largest ethanol producer in the district. And frankly, I would say that people in my district and the ethanol industry are baffled and frustrated by this war that they feel is being waged. And I

agree with them on liquid fuels. We have seen the price of fuel increase, and that is the big part in my view on what is driving inflation, not the only thing but it is the biggest thing that is driving inflation and increasing the overall cost of things. The answer is right under our feet here in America and it is also growing in our fields all over the country today.

A specific thing I think we could do right away would be year-round E15, which would increase demand, would provide some certainty for the market. So I guess my first question is: what is the Administration's position on year-round E15? Is that something that you support?

Ms. TORRES SMALL. Congressman Mann, thank you so much for that question and for your interest in the wide gamut of biofuels and ethanol and the opportunities across the board that they present. When it comes to E15, the decision-maker really is the EPA, and so Rural Development doesn't work in that space. We are focused, like you are, on the business side of the work that can be done there, and so we have talked about the programs that might support some of the production that is happening in your district. The piece that we haven't talked very much about is the BioPreferred Program, and I would love to discuss that with you as well as some point.

Mr. MANN. I would love to do that as well.

There seems to be this movement towards more electric vehicles. A term we say in our district is *you can't plow with a Prius*. I mean, the bottom line is we need diesel fuel, we need it today, and that is not going to change anytime soon. I guess a specific question is what can we do to make the cost of diesel fuel less so that operating this equipment that exists on our farms all over Kansas and around the country, we have to figure out how we can decrease the price of diesel fuel to make these operations more economic. Any thoughts on that?

Ms. TORRES SMALL. When it comes to Rural Development, I think the opportunities are investing in biodiesel, like you said, and how do we make sure that we are investing in new technologies to expand the impact that ethanol and biodiesel can have.

Dr. Neal spoke briefly about the section 9003 program, which is about the innovations that are available within biofuels and how we can continue to support that so that, as we face continuing challenges when it comes to our energy supply, we will have those technologies to respond to.

Mr. MANN. Great. And my last question, in what ways do you see how bioenergy can help the U.S. regain our energy independence? We were energy-independent. We are not anymore. That is absolutely in my view an immediately fixable problem. And what do you think is bioenergy's role to play in that?

Ms. TORRES SMALL. When COVID-19 hit, I think we recognized that energy independence can mean a lot of things. It certainly means how do we produce energy locally that we have access to, but it also recognizes a global impact when we look at pricing and the markets globally. And so when I think about energy independence or energy dependence in communities like Alaska where they are reliant on diesel fuels for 100 percent of their energy, electricity production, the way that we can respond to that is creating a more

diverse energy portfolio, and biofuels are key part of that. I think that is how we work together to invest in that.

Mr. MANN. Yes, I agree. Well, thank you for being here. And in my view, America is the freest country in the history of the world in large part because we have never had to rely on another country for our food. We also can be in a situation where we do not have to rely on another country for our energy, and we need to quickly return to that. It is right below our feet, growing right in our fields today, and I think our policies should reflect that. So thank you for being here. With that, I yield back. Thank you.

The CHAIRMAN. Thank you, Mr. Mann. And now the gentleman from New Hampshire, Ms. Kuster, is now recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman, and thank you, Under Secretary Torres Small, for returning to our Committee to talk about the Energy Title of the farm bill and how rural America is transitioning to clean energy.

And I want to thank you again for your trip to New Hampshire, broadband and clean energy, that was such a great success. We so appreciated you coming to visit the solar array in Franklin, New Hampshire, that is being developed with low-interest loans from the Rural Utilities Service. And as you know well, this kind of strategic investment from USDA in clean energy supports our rural communities and the economy around us.

As our nation transitions toward a clean-energy future, there is no question that rural America has a critical role to play in leading this charge. And I might say we will be less dependent on foreign sources of energy and less dependent on fossil fuels overall. This energy evolution of course includes wind, solar, hydropower near and dear to my heart—I think it is a *dam* good idea—but also wood energy as well. And it is especially key for New Hampshire as we are the second-most forested state in the country. Many Granite Staters, including my husband and myself have turned to woodstoves and wood pellet stoves and heaters to keep our homes and businesses warm during the winter. Wood heat is not only cleaner than fossil fuel alternatives, but it is energy that is grown locally in New England where we tend to be at the very end of the pipeline. Wood heat creates demand for low-grade wood, and keeping that market viable helps our family foresters stay in business.

And to that end, last year, I joined Congresswoman Pingree to introduce legislation to double funding for the Community Wood Energy and Wood Innovation Grant Program and the Biomass Program in Rural Development's portfolio are critical as well.

Madam Under Secretary, can you elaborate on how wood energy fits within USDA's Rural Development energy portfolio and how your programs enhance wood energy projects?

Ms. TORRES SMALL. Thank you so much, Congresswoman Kuster. It is lovely to see you again. And I really appreciate your question for a few reasons. One is that it shows how much looking at the local opportunities on the ground can also help us address our energy opportunities and challenges. And so when it comes to woody biomass, you certainly mentioned some of the programs within NRE (USDA Natural Resources and Environment) that can help provide support. And Rural Development stands poised to con-

tribute to how we can stack those opportunities. So if there is a woody biomass funding coming from the Forest Service, we might be able to also support those efforts through a B&I guaranteed loan, for example, or some other support.

And so to speak a little bit more to that, I will defer to Administrator Neal.

Dr. NEAL. Sure, thank you. So there are a couple things I would say. One, as we heard, there are opportunities sort of within our larger space for businesses just for business development. So we think about the Business and Industry Guaranteed Loan Program and other kinds of places that are not specific to the energy sector but can certainly contribute there and be supportive of the businesses in that sector.

In addition of course there are programs that we have that are specific to the energy sector, specific to fuels. And we think about opportunities in REAP, opportunities in section 9003. In these places, I mentioned earlier that REAP has 70 percent of the applications and the awards there for grants are in solar, but there are other categories of technology that are absolutely competitive, and we welcome those applications. And in fact in some cases, depending on what the pool of projects is, there may even be discretionary points or other kinds of things awarded for underrepresented technologies so that those kinds of technologies that are often very competitive can make sure that they can get access to that funding as well.

Ms. KUSTER. Great. I am going to try to get one more quick one in. You talked in your testimony that there is more that we can do to improve USDA's rural energy programs by making applications more accessible and expanding technical assistance. Is USDA looking at steps to address this internally? And is there potential action that we in Congress need to take in the next farm bill to help streamline?

Ms. TORRES SMALL. Oh, Congresswoman Kuster, thank you so much for asking that question. It is one of the things that I am most interested in when it comes to Rural Development. I know I am in a rural community when I am talking to a group of people who care deeply about their home but none of them are grant writers. So we are working hard to identify the regulatory challenges that make applications more difficult, also just some of our standard practices that sometimes can make applications more difficult and also want to work with you if there are legislative barriers as well if you have technical questions on that.

Ms. KUSTER. Great. Nice job with the clock. Thank you so much. Again, we are so proud of you. And with that, I yield back.

The CHAIRMAN. Yes, thank you very much. And now the gentlelady from Louisiana, Ms. Letlow, is now recognized for 5 minutes.

I think we are in the process of getting back in touch with Ms. Letlow. Mr. Feenstra, would you mind carrying on? You are recognized for 5 minutes.

Mr. FEENSTRA. Thank you so much, Chairman Scott and Ranking Member Thompson. And, Madam Under Secretary, it is nice to see you again.

In your testimony you speak to the importance and the effectiveness of E15. I really appreciate that. I really do. In fact, you say that ethanol displaced more than 500 million barrels of crude oil in 2021, which contributed efforts to protect America's energy independence, and that is amazing. And in Iowa, one out of every two rows of corn go to ethanol. And sometimes we forget about this, but we also have distillers grain that comes out of ethanol. Some people say we are using energy instead of food. That is very incorrect.

But I want to get back to you. We have talked about year-round E15, and I am just wondering, what can Rural Development do to help this E15 process to go year-round, and is there anything that you can do for the Administration or with the Administration to make this happen?

Ms. TORRES SMALL. Congressman, thank you so much for your question and just for your attentiveness throughout the hearing. I have seen you here and present and engaged the whole time, and that means—I know how valuable your time is. And I also appreciate your focus on biofuels. When I was in Iowa, I actually visited a biofuels producer that had an agreement to send their distillery grain to New Mexican cattle companies, so I recognize the impacts there across the board.

And your question about E15 is really important. When it comes to the work that Rural Development does, we focus on that business side of things, so we are not the scientists determining when. We are not the courts determining when, if E15 can be used, but we want to make sure there is the technology on the ground to do that. And so the HBIIP program is crucial to get those gas pumps that can handle that fuel all across rural America to make it more accessible.

Mr. FEENSTRA. Well, thank you. Thank you so much that. And you mentioned the \$700 million program for biofuels that was authorized through the CARES Act over the last 2 years. Can you sort of in generalities provide an update on the program, sort of on the accounting side, how much money has been spent already and in essence how much is left if you somewhat know that?

Ms. TORRES SMALL. Yes, no, I appreciate the question because we have been working to get the money out the door, and we took some time to get it right. We issued a notice, identified some challenges with how we were measuring the impact that COVID-19 had on corn growers and other producers of biofuels, and so we shifted. We pivoted based on feedback that we got. And so applications closed in February, and we are expecting payments to go out in late spring or early summer.

And to speak a little bit more specifically about those pivots, I will defer to Administrator Neal.

Dr. NEAL. Yes, thank you so much for mentioning that. I appreciate your mention of dried distillers grains in your question. That was in fact one of the pivots that we recognized. Initially, the program was specifically for those who had experienced losses due to ethanol production. We recognize that many of those firms had multiple streams of income, right? They were selling the distillers dried grains, they were selling CO₂, they were doing other things as well, and they had contracts to do that, and they wanted to make sure that they were able to meet those obligations. And so

we recognize that even though those companies were operating at a loss, they were still producing, but they were operating at a loss so that they can meet these other contracts. We wanted to make those pivots in place, put those pivots in place so that those kinds of firms could be in general eligible for this. And so on January 28th we published an amendment to the NOFA in response to that kind of feedback to open up that program and, again, make it responsive to what we are hearing from folks who are in this sector.

Mr. FEENSTRA. Well, thank you so much. And as you both know, it is so important for the Midwest to have biofuels. And I get really concerned, obviously. I want year-round E15, and if you could pass that along to the Administration.

But I was in a budget hearing on Monday, last Monday, and there is not one word about biofuels in the Administration's budget, and I get really concerned about that, as how serious is the Administration. And I know you can't answer that. But I will say thank you for all the Rural Development's help. I have seen it so much in my rural communities, and I greatly appreciate all the efforts. Thanks again. I yield back.

The CHAIRMAN. Thank you. And now the gentleman from Florida, Mr. Lawson, is now recognized for his 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman and Ranking Member, for this hearing. And, Madam Under Secretary, I don't want to sound redundant, and this was something you answered a little bit earlier on. And I am saying it has been well-documented that many of the USDA conservation programs have applications that are sometimes very technical, very time-consuming. Because of this, an unequal number of large operators are benefitting from these programs while small and socially disadvantaged farmers and producers struggle to apply. How is the Rural Energy for America Program able to deal with this? Should we allow smaller producers some up-front assistance to work on these projects?

Ms. TORRES SMALL. Congressman Lawson, that is such a helpful question. And what I really appreciate about it is that you recognize that accessibility of our programs really is about equity, making sure that no matter who you are in rural America, you have access to these programs. If you don't have a grant writer, you still have access to these programs. And also Congress has done a really interesting job acknowledging that in recent funding as well, so if you look at the ReConnect Programs, additional component for technical assistance and administrative fees, that has been helpful. It was also available in some of the ARPA programs, as well as in proposed legislation with BBB, recognizing that a key part of the programs are the people that help deliver it and making sure that we are able and poised well to do that in a way that is accessible to everyone. So as we look at the farm bill and the ways to make REAP more accessible, recognizing that it is already oversubscribed, but we want to make sure it is equally accessible to folks really eager to provide technical assistance on that.

Mr. LAWSON. Okay, thank you. And, Madam Under Secretary, I have been on the Agriculture Committee almost 6 years now and because I have a lot of rural areas and I have always believed that agriculture is the springboard for everything that we have in society. As you know, there are several renewable energy programs

that have been included in the farm bill and that receive little or no appropriation over the last couple years that I have been on. From your perspective, is Congress missing any key opportunity for funding these special programs? We talk about them all the time, but we don't fund them, and I just wanted to know your perspective on it.

The CHAIRMAN. Good question.

Ms. TORRES SMALL. That is a great question, and we certainly—it is our job to fulfill what Congress asks us to fulfill, so I do want to make sure and communicate that. But as we recognize ways that we are reaching communities, we certainly see places where communities are asking for more, right, where we are tapped out and are happy to communicate that to Congress as you make your decisions in terms of funding.

The other piece there, it is not just about funding but it is also about flexibility. So how do we take a bigger program and make sure that it speaks to a lot of different potential local ideas so we can respond and support that?

To speak a little bit more to that, I will defer to Administrator Neal.

Dr. NEAL. Sure. I appreciate that question. It is an important topic. And I will maybe address that by thinking about maybe one program in particular, the Rural Energy Pilot Program, which is a pilot program that offers grants and financial assistance for rural communities as they develop their role to further develop renewable energy in their communities. One of the things I think that is really important about this program is it is driven by community partnerships, so it is really about what that community recognizes in terms of their assets and how they want to proceed in terms of their renewable energy future.

And so that program, the letters of intent are actually coming up due on April 19th, and so we look forward to receiving those, and then there will be a second round. And part of what we think is good about having that two-step process is that that allows opportunity for feedback on that first letter of intent. You need to see sort of what is the thought, are there ways to strengthen this, how to make this align better with what the program priorities are and so that we would be able to get that feedback back and then, if they choose, submit a full completed application by the July 18th deadline.

So as an example of how these kinds of programs can operate, I think REPP provides that, and we are, again, very pleased to see how that program—we have already had significant interest and look forward to seeing more of that.

Mr. LAWSON. Okay, thank you. This is great information. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentleman from South Dakota, Mr. Johnson, is recognized for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. I would just note, having watched the Under Secretary today, it is a reminder of why so many of us enjoyed working with her, just a great passion for service, and our country is lucky to have your continued service, ma'am.

I watched with interest Mr. Carbajal's discussions of energy security. And as we look toward the next farm bill, are there particular aspects that this Committee should keep in mind that together we can do to try to further energy security for this country?

Ms. TORRES SMALL. Thank you so much, Congressman Johnson, for your hard work and the opportunity to collaborate on this because I think there are some great places where obviously we will follow Congress's lead and investment in this. But when we look at resiliency, I think it really breaks down into a few things, right? It is being able to deliver electricity even in the face of extreme weather, right, and how do we make sure that both our energy generation, as well as our energy delivery is resilient in that manner. It is also resilient to cybersecurity, so recognizing that electricity is one of the only utilities that requires certain investments in cyber utility, and Rural Development has responded to that by allowing that to be included in the loan portfolio to prepare for some of that cybersecurity that is necessary. And then it is also about making sure that we are ready for the challenges of the future when it comes to diversifying our energy portfolio.

I do want to make sure there are a few more specifics for you, and so I will defer to Administrator McLean.

Mr. MCLEAN. I think that, again, we have been very grateful for the strong support the Committee has shown the Rural Utilities Service and—

The CHAIRMAN. Excuse me, Mr. McLean, we are having a little difficulty. Turn your microphone on.

Mr. MCLEAN. My apologies.

The CHAIRMAN. Thank you.

Mr. MCLEAN. Any investment in infrastructure, whether it is water, telecommunications, broadband, electricity, is investments in reliability because that investment in infrastructure is more reliable, more efficient, safer, cleaner, more reliable than what it is replacing. And that is why there is a continuing need for the programs that this Committee has so valiantly provided for over the years and we hope will provide for into the future.

And as we move towards this transition, we are all about adding to the capacity of energy production, whether it is through new and renewable sources with the addition of technology and innovation and addition of transmission capacity in order to move power from where it is generated, often in rural areas, to where it is needed sometimes in the suburban and urban areas as well.

Mr. JOHNSON. So then maybe to shift gears a fair amount, I am just curious if any of you are hearing much from Members of Congress or other stakeholders about the new Carbon Utilization and Biogas Education Program, and what are you hearing?

Ms. TORRES SMALL. I love the curiosity. I think that is absolutely crucial because we have a lot of work that we are doing in the Bio-Preferred space, and I want to make sure that we are coordinating on that effort. So to speak a little bit more to that, I will defer to Administrator Neal.

Dr. NEAL. Yes, thank you for that question. I specifically want to talk to you just a little bit about the interagency working group on biogas, which we are working on along with Department of Energy and various others across the Federal family. There is signifi-

cant opportunity there. That group has identified several priorities, things like standardizing digestive composition as a commodity that is recognized across the country, enhancing the ability to forecast emission reductions from anaerobic digestion, and reduction of regulatory barriers that might exist in that space. So thinking about that interagency working group and how all of these agencies within the Federal family can collaborate intentionally around the future for digesters and what the opportunities that technology presents I think is a real opportunity, and we are excited to be engaged very practically in that working group.

Mr. JOHNSON. And I know it is early yet, so I wouldn't imagine that you have fully fleshed-out themes you are hearing, but are there certain things that are percolating up that people are particularly interested in and excited about, concerned about?

Ms. TORRES SMALL. Administrator Neal?

Dr. NEAL. Sure, yes, I think really it is some of those key priorities that we have identified that I just shared, things like standardization, understanding what the impact of digesters are, sort of recognizing—I think there is a very significant opportunity in recognizing the broad role of digesters, so sometimes we think a lot about gas products, but there are other kinds of products, things like renewable chemicals and those kinds of things that I think are going to be very important in the biobased sector as well. So there is a broad range of things, and that working group is well-positioned to make progress in all of them.

Mr. JOHNSON. Thank you. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from Minnesota, Ms. Craig, is now recognized for 5 minutes.

Ms. CRAIG. Thank you so much, Chairman Scott, and thank you to the Ranking Member. I want to also say thank you to the Under Secretary for coming back in front of us to talk about your important work at USDA and for your colleagues being here as well.

Given rising fuel prices and energy prices, we know this is impacting the budgets of working families across our nation. It is my view that we need to be focused on immediate and impactful solutions that decrease energy prices, as well as increase U.S. energy independence. That is why I have been so focused on increasing the availability of U.S.-produced renewable biofuels, and it is why I support the Renewable Energy for America Program.

First on biofuels, E15 back in Minnesota is selling anywhere from 15¢ to 45¢ cheaper per gallon than traditional gasoline right now. Multiple studies have shown that it reduces GHG emissions by more than 40 percent compared to traditional gasoline. We could replace every barrel of Russian oil with biofuels. But Minnesotans and Americans across the country are at risk of losing access, and this is so important in the Midwest, to this renewable fuel this summer if no action is taken soon to permit year-round sales of E15. That is why I led a bipartisan letter to the President last week with six bipartisan co-chairs of the Congressional Biofuels Caucus urging him to permit year-round sales using authority outlined in the Clean Air Act.

Madam Under Secretary, I know you and Secretary Vilsack have been strong proponents of renewable biofuels within the Administration, so thank you for your leadership on that. Two questions for

you on the topic. Can you give us any update here today on the perspective that you and the USDA leadership team are sharing with your counterparts within the Administration when it comes to allowing summer sales of E15?

Ms. TORRES SMALL. Thank you so much, Congresswoman Craig, for your advocacy for the biofuels industry and for your home. And certainly it was evident when I visited your district recently just to see how committed the entire community was to being part of a solution when it comes to energy resiliency. And so it was very inspiring for me to see that on the ground.

And when it comes to the work that Rural Development does for biofuels, recognizing that it is and this time has reinforced that, a crucial component of our energy independence. And so the way we can support that is through the support of getting the technology on the ground to best deliver those biofuels and those higher blends of biofuels, as well as addressing some of the impacts that biofuels producers experienced in the midst of COVID-19.

Ms. CRAIG. Well, we certainly hope you will pass it along within the full Administration, as well as the EPA, that Minnesotans are about to see fuel costs go up if the Administration doesn't act now, and we have an opportunity to act now.

Along the infrastructure lines, can you give us a little bit of an update on the status of the \$100 million infrastructure grant program that USDA announced in December of 2021? And can you share an update on the \$700 million for biofuels producers in particular?

Ms. TORRES SMALL. We have been working hard on this, and I really appreciate you bird-dogging it to make sure that it is delivered to the people who are working hard to fuel our country. So when it comes to the \$100 million, that we expect to see before the end of spring, getting the application process open. And when it comes to the \$700 million, as you know, the application closed at the end of February or within February, and so now we are working to get those payments out late spring or early summer.

Ms. CRAIG. Great. And so thank you so much for your work on that important issue. As you all know, rural America plays a role in increasing rural energy and energy independence via the REAP program. So quickly, Madam Under Secretary, as you know, REAP supports producers through a bunch of different funding pools. With year-over-year changes in renewable energy system installment costs and recent inflationary pressure, does USDA believe it makes sense to increase that minimum funding pool threshold?

Ms. TORRES SMALL. It has been clear throughout this hearing just how interested folks are in REAP, and we see that on the ground, too. One of the things we have talked about is how it is oversubscribed, so any changes in terms of who can access and how much money can be used would certainly impact the broad pool of applicants. But I think there are a lot of ways we can work and follow Congress' discretion in terms of how they want to allocate those funds.

Ms. CRAIG. Well, thank you so much. That answer will certainly help this Committee address possible changes ahead in the next farm bill. And with that, Madam Under Secretary, thank you for being with us. And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, Ms. Craig. And now the gentlelady from Minnesota, Mrs. Fischbach, is now recognized for her 5 minutes.

Mrs. FISCHBACH. Thank you, Mr. Chairman. And just building a little bit, Ms. Craig was talking about some of the biofuels and the ethanol from Minnesota. But, obviously gas prices are high, and I think it has been touched on a bit. I think maybe even maybe Mr. Davis had touched on it a little bit. But, what I am really interested is how to solve those high gas prices. And I think that biofuels is really a no-brainer in terms of providing domestically produced fuel, easing the price shocks at the pump, and I think even Congresswoman Craig had mentioned the difference in the price and reducing greenhouse gas emissions. And ethanol does provide, it reduces emissions, the infrastructure is there, and it really does need to be—just as a side note, really does need to be part of that discussion as we talk about renewable fuels. And sometimes I think it is forgotten, so I always like to mention that a little bit.

But, Madam Under Secretary, what do you think is biofuels' role in reducing the price of gas?

Ms. TORRES SMALL. Congresswoman Fischbach, thank you so much for that question. And I deeply appreciate your comment that you are focused on how to best solve these challenges. I think Rural Development is a crucial partner in that and specifically in supporting biofuels. When it comes to decreasing the cost at the pump, having access to that energy independence is crucial, and certainly we see that when it comes to the production of biofuels, but also in terms of those long-term risks that we were talking about earlier and that you mentioned in terms of reducing emissions.

To speak more about how biofuels can contribute both to the affordable component of energy as well as the resiliency, I will defer to my colleague, Administrator Neal.

Dr. NEAL. Thank you. I appreciate the opportunity to speak on this. I think one of the things that is important is for us to think—and Under Secretary Torres Small mentioned this as well, to think on the short-term basis and the long-term basis. And so we are thoughtful about programs like the Biofuel Producer Program, which is going to make sure that businesses that have been involved in this sector can continue to be productive, can continue to operate and function in the very near-term through those payments that will be coming in the early summer.

In addition, we are investing in those kinds of technologies that make those fuels accessible to consumers and to businesses through programs like the HBIIP program, the Higher Blends Infrastructure Incentive Program, making sure that those infrastructure investments are in place, and then, again, thinking a little bit even more long-term is thinking about those technologies and what are the kinds of places where we can have a variety of technologies that, for instance, take advantage of a variety of feedstocks to make sure that those fuels, that we have options for fuels, going forward. So that could include the program like the REAP program or the 9003 Program where, again, we are looking at technologies that are commercial technologies but may benefit from some addi-

tional support to make sure that those projects get off the ground and are successful.

Mrs. FISCHBACH. And, Dr. Neal, maybe just you mentioned the payments, and I know that you had an exchange with Congressman Davis about the timing of the payments, if they are coming out. I think you said late spring and then maybe even in your response to me you said summer. And I guess maybe if you could explain to me just a little bit about what is the holdup? What is taking so long?

Ms. TORRES SMALL. Thank you so much. Just to emphasize that a lot of it has been being responsive to the industry, recognizing that there were pieces of the industry that we needed to learn a little bit more about in order to best support folks who were impacted by COVID-19 and really appreciate that feedback and that dialogue.

And go ahead, Administrator Neal, in terms of additional—

Dr. NEAL. Yes, no, I appreciate that. That is exactly why, as you mentioned earlier, we had submitted an amendment to the notice in January to address exactly that kind of feedback, so recognizing, for example, that there were firms that operated, produced ethanol, they produced it at a loss so that they could meet contracts that they had for other kinds of products like dried distillers grains, like carbon dioxide, those kinds of things. And we wanted to make sure that those kinds of firms were also eligible for this program, so we made those changes in response to the comments that we got, that kind of feedback. It does take a bit of time to make sure that we go through and evaluate those applications. And I don't really want to call it a holdup. We just want to be diligent and want to make sure that we are responsive and responsible in the administration of this program.

Mrs. FISCHBACH. All right, thank you. And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you very much. And now the gentlelady from Illinois, Mrs. Bustos, who is also the Chair of the Subcommittee on General Farm Commodities and Risk Management, you are recognized for 5 minutes.

Mrs. BUSTOS. Thank you very much, Mr. Chairman. And I also want to say thank you to our Under Secretary Torres Small, great to see you. Also thank you to Dr. Neal and Mr. McLean for getting together with all of us. Also, I want to say thank you for highlighting the fantastic renewable energy work that is going on in my home State of Illinois.

I know you have gotten a lot of comments about E15. I will just join in real quickly, I don't have a question about it, but I want to promote year-round E15, very, very important to rural America. It is very, very important for a lot of reasons. I know Congressman Feenstra addressed it, Congresswoman Craig addressed it, so I just want to add on to show my support for that as well.

So let me get into a couple questions here. The President's budget request for 2023 that was just released last week included \$300 million for rural electric co-ops so they can transition from their infrastructure of fossil fuels to more renewables. And I will start with our Under Secretary and of course if Mr. McLean has anything to add, please do. But can you speak to the economic impact that this

transition could have on rural America and also what sorts of new opportunities would this sort of robust, sustained investment bring about?

Ms. TORRES SMALL. Congresswoman Bustos, thank you so much for that question. It is something we have been talking a lot about and are very eager to continue to do this work. As you know, there was a larger proposal in Build Back Better that also has to do with our work with rural electric co-ops and how we can best support them in their work to advance renewable energy. When it comes to this investment, it is really an opportunity to showcase the impact that we can have when it comes to debt restructuring and loan modifications, and so we are excited to dive into that.

And to speak a little bit more to that, I will defer to Administrator McLean.

Mr. MCLEAN. Yes, thank you very much. And thank you as well. I want to highlight we are very, very proud of the work that we are doing in Illinois, major renewable projects in Prairie State and Dresser, very big solar projects. And I think it is an exciting glimpse of what the future is and what the transition can lead to.

But for rural electric cooperatives, as consumer-owned businesses, there aren't shareholders or investors to be able to absorb the cost of transition, so the resources proposed in the President's budget and proposed in the reconciliation bill are going to be very valuable, and we are going to put them to work as best we can to be able to facilitate that transition to be able to address those stranded investment costs that rural electric cooperatives uniquely face precisely because it is the consumers that are the owners of those business units.

Mrs. BUSTOS. Very good. So let me get back onto this popular topic that you are hearing from the Midwestern Members of Congress here on about. So, Under Secretary Torres Small, in recent years, the USDA has stood up and implemented the Higher Blends Infrastructure Incentive Program. If you could, can you give us a bit of an overview of how this program was used by applicants and how that compares to USDA's goals for the program? And second, in retrospect, are there any changes to the program that the USDA would suggest should the program be continued through the farm bill?

Ms. TORRES SMALL. Thank you very much, Congresswoman Bustos. And to speak to that, not coming from the Midwest, I had to really learn what this infrastructure needed to look like to deliver the higher blends. But it truly is making those higher blends accessible across the United States through the technology, if it is the gas pump that is necessary to deliver it or beyond.

So we have learned a lot from previous iterations of HBIIP, and we are applying some of those tools in this next phase, which will come online in the late spring. The applications will open. And to speak a little bit more about what we have learned, I will defer to Administrator Neal.

Dr. NEAL. Thank you for the opportunity to speak on that. And I think part of what we have learned is through—this is now the third iteration of this program that we have had. And one of the things is thinking about how it is administered. It has been administered sort of through the states and it has been administered na-

tionally, and we have learned what the administrative costs are frankly for this program as well, making sure if there are environmental reviews, other kinds of support that are needed, to make sure that the funds are deployed effectively and appropriately, and we want to make sure that we are able to do that. And we have seen from the other iterations of the program what is necessary, and we are preparing to do that with this version of the program currently.

Mrs. BUSTOS. Okay, thank you. Since I have a minute left, I am going to try to squeeze this in. Congresswoman Craig talked a little bit about the Renewable Energy for America Program that we call REAP. I want to drill down a little bit deeper. We have seen that it can be successful in serving different kinds of agricultural operations in different regions in the country. Mr. McLean, I am going to address this to you. Are there any changes that you would recommend be made to ensure that the program is accessible and useful for farmers, rural utilities, and small businesses?

Ms. TORRES SMALL. Congresswoman, if you don't mind, I am going to pass that over to Administrator Neal.

Mrs. BUSTOS. Okay, sounds good. Thank you.

Dr. NEAL. No, I appreciate the opportunity to talk about that. I think REAP has been a popular and a long-standing program, and we definitely see opportunity for improvements. I think some of the kinds of things we would love to have, again, obviously more financial support because it is a very popular program. We have unfunded grants applications, some of which are very high quality we would love to be able to fund and we are not able to do so. We had a record year for the guaranteed loan program so, again, there is opportunity there. We also want to make sure that the program is administered well and modernized with increased flexibility and modernize our programs. And so we think there is opportunity in terms of the application process, providing technical support and assistance through our staffing. That, again, I think would make a real difference in the availability and accessibility of this program.

Mrs. BUSTOS. Thank you, Dr. Neal. My time has expired, and I will yield back.

The CHAIRMAN. Thank you. And now the gentlelady from Florida, Mrs. Cammack, you are now recognized for your 5 minutes.

Mrs. CAMMACK. I appreciate that. Thank you, Mr. Chairman, and thank you to our guests and witnesses for appearing here today.

I echo the sentiments of several of my colleagues. Quite frankly, this is a very frustrating exercise because the real issues that are impacting rural America today are not being addressed here in this hearing. And so I have to voice that on behalf of my constituency and my producers, who many are suspending their operations because the cost of fuel has skyrocketed, and it is just no longer a viable option under these current circumstances when the price of diesel is over \$5 a gallon, \$5 a gallon. In fact, it was \$5.19 yesterday in my district. When it is that and we are now having a conversation of renewable energy opportunities in rural America, I think that screams how out of touch Washington, D.C., and this Administration is when it comes to the needs and wishes of the constituents that we represent.

But I digress. I am going to just jump right into a supply chain question, Madam Under Secretary. This isn't our first rodeo with the enormous potential that we are talking about as it relates to renewable energy. But the future that this Administration seems intent on foisting on rural America, one that is really dependent on raw materials like copper, nickel, cobalt, lithium, all of which will require increases in production if this Administration's version of low-carbon future is to come to fruition.

So at this time, the lion's share of lithium refining occurs in China, and a significant portion of the world's polysilicon, which is used to make the solar panels. This comes from the region which is under fire for gross human rights violations. Now, China is committing genocide, and this is something that is indisputable. There are numerous reports tying the companies extracting the polysilicon to power this Administration's bright, beautiful future to slave labor.

Madam Under Secretary, what is your plan to protect rural communities and businesses from being exposed to these risks and evils in what they deem a future energy supply chain? And more broadly, what is the Administration's plan to increase extraction and refining of these raw materials domestically?

Ms. TORRES SMALL. Congresswoman, thank you for your question and for your focus on rural communities because when it comes to Rural Development, the work that we do is not the regulation side in terms of mining or in terms of production but more in terms of incentives, incentives for communities so they can identify what their opportunities are for energy resilience, what their opportunities are when it comes to affordable energy, as well as their opportunities when it comes to a clean energy future.

And so Rural Development works hand-in-hand, whether it is with a rural electric co-op on the electricity side or whether it is a farmer when it comes to REAP or a Value-Added Producer Grant, for example. We are focused on responding to those local insights and how we can best support them in those efforts.

So to speak a little bit more about the electricity diversification, I will defer to Administrator McLean.

The CHAIRMAN. Mr. McLean, again, would you turn on your microphone?

Mr. MCLEAN. Apologies, Mr. Chairman.

The CHAIRMAN. We all want to hear you. Thank you.

Mr. MCLEAN. Apologies. It is critical about building those very industries in the United States and not only looking for sources of those critical materials but finding ways to recover them from recyclable materials. And it is an across-government initiative, not highly focused at Rural Development, but we are aware of supply chain issues and are dealing with them as we roll out investments in rural electric infrastructure.

Mrs. CAMMACK. So I only have 35 seconds, so I would love to do a follow-up on that, but I have to get to this second question because, quite frankly, the title of this hearing today is about rural America and renewable energy opportunities in rural America, keywords to me being *rural America*, which, again, I feel this Administration is woefully out of touch with. These are folks that their energy sources come from diesel primarily when you are talking

about equipment. What are we doing to make sure that the cost of diesel and biodiesel is a viable option for these operations today?

Ms. TORRES SMALL. When it comes to diesel, I just left Alaska where 100 percent of some places' reliance on energy is produced through diesel generation. And so the importance that we have in terms of making diesel more affordable but also making other energy opportunities available is crucial. And so we will continue to work whether it is through HBIIP, whether it is through the 9003 Program to advance biodiesel opportunities, or whether it is through the CCC payments and the \$700 million, we will continue to look to partner with you to make those more accessible.

Mrs. CAMMACK. I appreciate that and yield back. Thank you.

The CHAIRMAN. Thank you. And, clerk, may I check with you to make sure? I think we are all clear. There are no more questions from Members. And so thank you.

I want to just thank you, Under Secretary Torres Small. What an informative, articulate, knowledgeable, and very helpful testimony that each of you have given. And I want to thank you. I want to thank also your Administrator Neal, excellent. Thank you for your testimony. And Administrator McLean, thank you for your testimony.

And I want to thank my wonderful Members. As you can see, the depth of the questions that they have asked of you and your help let you know that is number one on this Committee, one of our major objectives is to make sure we take care of rural America. I am so proud that our Committee has launched now. We have taken a bold step in getting I think now it is \$68 billion in total to finally bring rural broadband to America. I am proud of our Committee's work.

And, as we move forward with our farm bill, your information has been so helpful in helping us to make sure we put together a great farm bill and that the interests and the challenges that we face with rural America are inclusive in our 2023 Farm Bill.

And so, Under Secretary, again, thank you. And now that you have concluded all of our questions in such an excellent way, we want to excuse you. But please, we have another panel. Don't go far. We will bring our second panel on in 5 minutes. And in order to allow you all to exit and have our other panel come in, we are going to take a 5 minute recess. And we will be right back with our second panel. Thank you, everyone.

[Recess.]

The CHAIRMAN. This Committee will now come to order.

Our first witness for our second panel today is Mr. Andy Olsen, who is a Senior Policy Advocate for the Environmental Law & Policy Center.

Our second witness today is Mr. Bill Cherrier, who is the Executive Vice President and Chief Executive Officer of the Central Iowa Power Cooperative, testifying on behalf of the National Rural Electric Cooperative Association.

And our third witness today is Dr. Patrick Gruber, who is the Chief Executive Officer of Gevo, Incorporated.

And our fourth and final witness today is Mr. Jay McKenna, who is the Chief Executive Officer of Nacero. And I hope I got everything reasonably correct and pronounced appropriately.

So let us begin, Mr. Olsen, when you are ready. You can begin your testimony.

STATEMENT OF ANDREW “ANDY” OLSEN, SENIOR POLICY ADVOCATE, ENVIRONMENTAL LAW & POLICY CENTER, CHICAGO, IL

Mr. OLSEN. Thank you. Good afternoon, Chairman Scott, Ranking Member Thompson, and Members of the Committee. I am Andy Olsen, a Senior Policy Advocate with the Environmental Law & Policy Center, or ELPC. Thank you for inviting me to testify today.

The ELPC has been involved in the Rural Energy for America Program since 2002, working with farm and energy groups around the country. The ELPC is a member of the Ag Energy Coalition, which leads with us in supporting REAP and other Energy Title programs. We have learned a few lessons along the way.

REAP has always enjoyed bipartisan support perhaps because it serves every agricultural sector and has reached every state. REAP helps lower costs and generate new farm income. And REAP is popular. Demand for grants and loan guarantees exceeded funding by an average 4.5 times over the past 10 years. Over 20,000 REAP awards have been made on a competitive basis since 2003. Since 2014, REAP leveraged over \$7 billion in private investment. REAP benefits the nation with more clean energy, stronger rural economies, and a healthier environment. Farmers and ranchers and rural small businesses of all types use REAP to harvest the wind and the sun to power their operations. They use energy efficiency to cut energy costs and waste. Biomass energy is also included in REAP, as well as hydropower. Rural electric cooperatives use REAP in their own facilities, as well as their members' facilities. Rural grocers use REAP to stay in business with better refrigeration, lighting, and other technologies that serves the whole community.

However, significant changes are needed to update REAP to help the country face challenges, which we call REAP 3.0. The 2023 Farm Bill should strengthen REAP to help de-carbonize energy sources and electrify energy usage. Reducing climate risks and increasing climate resilience increases our national security, especially among food producers. Climate risks are grave, but we can confront this clear and present danger.

American farm groups recognize the threat of climate change and the need to act. Climate change is already a market factor as commodity buyers seek a lower carbon footprint, and REAP helps farmers deliver. REAP provides U.S. agriculture with the means to respond to climate disruption, while also taking part in the clean energy economy.

To build on success, we recommend strengthening the Energy Audit and Renewable Energy Development Assistance Program within REAP. We have seen over and over that outreach and education efforts result in more projects. For example, the Mississippi and Iowa Farm Bureaus led effective REAP education and assistance programs that helped poultry growers, corn and bean growers, and many others to cut energy waste and costs. In Nebraska, outreach efforts resulted in hundreds of irrigation efficiency improvements that replaced diesel motors with efficient electric motors and

often improve water efficiency to boot. REAP can contribute to the Congressional goals of retaining and recruiting young people in farming, as well as doing right by historically underserved producers. REAP 3.0 proposes adding 25 percent to the cost-share for these agricultural producers.

To improve access, REAP should be further simplified and include a streamlined rebate option for pre-approved technologies such as energy efficiency and smaller-scale renewables. Raising the threshold of the lowest tier in the three-tier application system would include more producers. To build on REAP's success, significantly increased funding is needed because now existing funds are spread thinly across the country. With additional funding, REAP can help agriculture in rural communities to adopt more climate solutions.

We encourage Congress to substantially increase REAP mandatory funding to accelerate clean energy and energy efficiency investments across rural America. Consumers, including farmers, need reliable energy information on equipment to make informed choices. A farm ENERGY STAR program based on the EPA's ENERGY STAR would provide performance data and standards and drive technology improvements by product manufacturers. We recommend creating a reserve fund for underutilized renewable energy technologies in REAP to support a full range of clean energy options. The ELPC appreciates the bills that would strengthen and update REAP led by Representatives Pingree and Spanberger.

With the adjustments described above and others, Congress can provide a major upgrade to REAP 3.0 to serve many national purposes with one program. My written testimony provides more detail and also mentions opportunities to improve other Energy Title programs.

Importantly, America has the talent and the resources to overcome the many daunting challenges we now face. Now more than ever we need the American can-do spirit and to work together for the future of our country and people and ensure that rural America can play a leading role. We can do this. Thank you.

[The prepared statement of Mr. Olsen follows:]

PREPARED STATEMENT OF ANDREW "ANDY" OLSEN, SENIOR POLICY ADVOCATE,
ENVIRONMENTAL LAW & POLICY CENTER, CHICAGO, IL

In support of the Rural Energy for America Program

Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. I am Andy Olsen, a Senior Policy Advocate with the Environmental Law & Policy Center (ELPC), the Midwest's leading environmental legal advocacy and sustainability innovation organization. Thank you for inviting me to testify this morning.

ELPC has been involved in the creation and continuation of the Rural Energy Program for America Program (REAP) since 2002. I have worked on rural energy since 2004 when I traveled the country talking about REAP with farm groups, REAP recipients and others. ELPC is also a member of the Ag Energy Coalition which leads with us in supporting REAP and other Farm Bill Energy Title Programs. We've learned a few lessons along the way.

The Rural Energy for America Program (REAP) has always enjoyed bipartisan support. It serves America in many ways and can help the country cope with rising energy costs, climate risk, and rural economic growth. REAP is broadly beneficial; it serves every agricultural sector and has reached every state in the union. And with smaller farms struggling under dire conditions, REAP helps to lower costs and generate new farm income.

REAP is a popular program with demand for grants and loan guarantees exceeding funding by an average 4.5 times over the past 10 years. Over 20,000 awards for grants and loan guarantees have been made on a competitive basis since 2003. Since 2014 REAP leveraged over \$7 billion in private investment in rural America.

Some examples of how REAP serves the country:

- Farmers and ranchers of all types have used REAP to harvest the wind and the sun to power their operations and have used energy efficiency to cut energy costs. In the process, agriculture becomes more resilient to energy disruptions.
- Corn growers have used REAP extensively to modernize and reduce energy waste.
- With REAP many syrup makers now use low energy molecular sieves to reduce costs of heating sap.
- Rural electric cooperatives benefit from REAP in their own and their members' facilities with an emphasis on efficient energy use.
- Greenhouse growers have found REAP valuable for cutting energy waste and costs.
- Local grocers have embraced REAP to better compete and to stay in business with better refrigeration, lighting and other technologies. Keeping doors open for local grocers and other locally owned small businesses helps the entire community.

By providing grants and loan guarantees to agricultural producers and rural small businesses for energy efficiency and renewable energy, REAP invests in rural America's future. Energy efficiency helps producers protect profitability by providing a hedge against rising energy costs. Renewable energy stabilizes energy costs over the long term. Many producers have used REAP to implement farmer-owned energy systems in rural areas. We can do more to substantially accelerate and broaden clean technology deployment.

REAP benefits the nation with more clean energy, stronger rural economies and a healthier environment. Modernizing energy technologies also helps retain and recruit young people to farming.

Significant changes are needed to update REAP to help the country face present challenges, which we call "REAP 3.0."

The 2023 Farm Bill is an opportunity to expand and strengthen REAP to help de-carbonize energy sources and electrify energy usage. This has already happened for years under REAP and we can do more with program enhancements and increased funding. Reducing climate risks and increasing climate resilience increases national security—especially among food producers. The risks are grave but we can overcome them, pulling together to confront this clear and present danger.

American farm groups recognize the threat of climate change to our future and the need to act. Climate change is already a competitive factor in commodity markets as buyers increasingly seek goods with a lower carbon footprint. REAP helps farmers lower their carbon footprint and meet market demand. REAP and other Energy Title programs provide U.S. agriculture a seat at the table to help confront and adapt to climate disruption while taking part in the clean energy economy. It's why the USDA identifies REAP as a top program for confronting climate change.

We've seen over and over that outreach and education efforts result in more projects. For this reason, we recommend strengthening the Energy Audit and Renewable Energy Development Assistance program (EA/REDA). EA/REDA provides grants to institutions such as universities, states, and rural electric cooperatives to provide these services and can serve more people better if funds were made available to nonprofits such as Energy Districts. To operate on the scale needed the EA/REDA set aside should be raised and program funds should be available year-round. Applications addressing both energy efficiency and renewable energy in one project should be eligible to implement more projects. To bring more projects to fruition, technical assistance should be explicitly added as a function.

Some examples from the states of effective education and outreach:

- From the early days groups such as the Mississippi Farm Bureau promoted REAP to help poultry growers to increase their profit margins with energy efficiency. Poultry groups use and strongly support REAP to this day.
- The Iowa Farm Bureau led a very effective education and outreach program that helped farmers use REAP for wind power, energy efficiency and solar.
- In Nebraska outreach efforts have resulted in hundreds of irrigation efficiency project improvements that replace diesel motors with efficient electric motors and often improve water efficiency.

REAP can contribute to the Congressional goals of retaining and recruiting young people in farming as well as doing right by historically underserved producers. REAP 3.0 proposes adding 25% to the cost-share for these agricultural producers to advance on these goals and better serve the nation.

REAP can reach more producers if we continue to simplify the application process. To further expand the reach of REAP, a streamlined rebate option would aid smaller operators and reduce the application burden. A REAP rebate would only be used for pre-approved technologies such as energy efficiency and smaller scale renewables. The rebate program would serve more qualified parties due to a simplified application and reduced application costs.

The Committee can also simplify REAP applications by a simple adjustment in the three-tier application system added in the 2014 Farm Bill. Under the three-tier application system small projects, defined as grants of \$20,000 and lower, have less complex application requirements. Given the time that's passed, experience gained and improvements in energy technologies, we recommend raising the threshold for the lower tier to \$50,000. This will reduce application complexity for more farmers, ranchers and rural small businesses.

To build on REAP's success, increased funding is needed to reach more agricultural producers and rural small businesses. REAP is popular and demand regularly exceeds funding. Existing funds are spread thin across the country and additional funding will help build more rural projects. With additional funding, REAP can provide more climate solutions while helping agriculture and rural communities to adapt to, and prosper in, a low carbon future.

We encourage Congress to substantially increase REAP mandatory funding from \$50 million to, at least, \$500 million per year, via budget reconciliation. Funding should include an up-front investment of \$1 billion to accelerate clean energy and energy efficiency investments across rural America. With higher funding the cost-share for grants should be 50% for all projects, commensurate with other USDA programs. Such funding levels are supported by a broad range of nearly 200 stakeholders. If this is not accomplished via reconciliation, the Ag Committees and appropriators should expand REAP funding via the annual appropriations process and the upcoming farm bill.

Consumers, including farmers, need reliable information on energy equipment to make informed choices. A "Farm ENERGY STAR" program based on the EPA's ENERGY STAR program would accelerate development and deployment of energy efficient technology. The program would provide performance data and standards, baseline energy use by sector, technology, product, *etc.* This focus will also help to drive technology improvements by product manufacturers.

We, along with the Ag Energy Coalition, recommend creating a reserve fund for underutilized renewable energy technologies in REAP to support a full range of clean energy options for farmers and rural small businesses. Done right, the fund would grow markets that drive energy-saving innovation and lower costs for key technologies.

ELPC appreciates the bills that would strengthen and update REAP submitted by Rep. Pingree and Rep. Spanberger. Rep. Spanberger's bipartisan REAP Improvement Act strengthens REAP resources and advances key concepts we need now for a significant REAP upgrade. Rep. Pingree's Agriculture Resilience Act provides important program innovations and funding vision.

Other Energy Title programs provide similar benefits. The Ag Energy Coalition recommends changes to the Biorefinery Assistance and Bio-Preferred programs as follow:

- The Ag Energy Coalition recommends the Biobased Markets Program would be more effective with additional funding, directed outreach to small biobased businesses, options for cost-share grants, creation of a minimum requirement for agency biobased contracts, and lower minimum purchase price thresholds.
- The Ag Energy Coalition recommends the Biorefinery Assistance Program be strengthened by making explicit that USDA must award loan guarantees to proven commercial enterprises with strong applications, with fewer constraints for first of their kind technology ventures and by making the program feedstock neutral with a minimum greenhouse gas performance measure and consideration for making sustainable aviation fuel a higher priority.

REAP is the "Rural Energy for America Program." An important part of that is the "for America" part and REAP does serve the nation in many ways. With the adjustments described above, and others, Congress can provide to the American people a major upgrade to REAP 3.0 to serve many national purposes with one program.

America has the talent and resources to overcome the many daunting challenges we now face. One resource we need to tap used to be called the “American can-do spirit.” Now, more than ever, we need that spirit and to work together for the future of our country and people and ensure that rural America can play a leading role. We can do this!

The CHAIRMAN. Thank you. And now our second witness today is Mr. Bill Cherrier, who is the Executive Vice President and Chief Executive Officer of the Central Iowa Power Cooperative, testifying on behalf of the National Rural Electric Cooperative Association. Mr. Cherrier, please begin when you are ready.

STATEMENT OF WILLIAM “BILL” CHERRIER, EXECUTIVE VICE PRESIDENT AND CHIEF EXECUTIVE OFFICER, CENTRAL IOWA POWER COOPERATIVE, DES MOINES, IA; ON BEHALF OF NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Mr. CHERRIER. Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to testify today. On behalf of Central Iowa Power Cooperative, we sincerely appreciate the Committee’s interest in rural energy issues.

CIPCO is a generation and transmission electric cooperative in its 76th year of service providing electricity to member cooperative systems across Iowa. As a not-for-profit electric provider, CIPCO is committed to maintaining a system that provides safe, reliable, and affordable energy.

I have three main themes in my testimony today. First, Rural Utilities Service loans are critical for affordable, reliable power to rural America and will be an important financing tool to help us maintain in these changing demands.

The ongoing energy transition must be inclusive of all energy sources, both clean renewable technologies and traditional baseload power sources that provide reliability. Incentives to support this transition should be accessible to all electric utilities.

Third, the USDA is a key partner for our not-for-profit electric cooperatives to serve our communities and provide benefits well beyond electrification.

Going back to the RUS, CIPCO and electric cooperatives rely on RUS for loans and capital. They fund our major system investments, generation, and technology. While we have all refinanced and mortgaged loans at some point in our lives, RUS loans cannot be refinanced. Significantly higher interest rates make it challenging for co-ops to reinvest in the system and keep rates affordable.

Only Congress can change this situation, and there is a bipartisan support for passage of H.R. 2244, the Flexible Financing for Rural America Act. This allows RUS electric loans to be refinanced without penalty. This essential step allows co-ops to focus on long-term stability, rates, and reinvestment in their communities.

Second, CIPCO’s diverse generation portfolio consists of wind, solar, hydro, landfill gas, natural gas, coal, and market purchases. Our portfolio has evolved significantly with wind energy growing from four percent in 2010 to 30 percent in 2021 and coal dropping from 58 percent to 29 percent during that same period.

CIPCO is also investing in solar energy. Just recently, we had the Wapello solar site for 100 megawatts commissioned, which sup-

plies energy to 18,000 homes and businesses. And Independence Wind for 54 megawatts was also commissioned. Those were both done in 2021.

Intermittent resources such as wind and solar must continue to be complemented and supported by always-available resources like coal and natural gas. System reliability depends on the ability to blend intermittent resources like wind and solar with firm, flexible, and dispatchable electric capacity.

Unfortunately, the Federal tax credit structure prevents not-for-profit electric cooperatives like CIPCO from taking advantage of the tax benefit to directly build and own wind and solar generation assets. The direct pay incentives would level the playing field for all the electric providers, allowing equal access to a diverse power supply mix. We would have much more reliable participation among electric cooperatives with direct pay incentives.

Finally, electric cooperatives were built by and belong to the communities that they serve. Through USDA's Rural Development and Loan and Grant Program, CIPCO works with local businesses and community groups to create jobs in rural areas. In 2020, CIPCO secured \$8.7 million in ten loans and grants to support the development and expansion of local Iowa businesses and services, including small businesses in industrial, professional services, and healthcare fields. CIPCO is dedicated to delivering 24/7 energy that is affordable and reliable to our Iowa households, businesses, farms, and communities, there are nearly 900 electric cooperatives across the country with similar community-focused missions for the areas that they serve.

As this Committee considers reauthorizing the farm bill, we look forward to continuing to work with you toward a shared goal of improving life in rural America. Thank you.

[The prepared statement of Mr. Cherrier follows:]

PREPARED STATEMENT OF WILLIAM "BILL" CHERRIER, EXECUTIVE VICE PRESIDENT AND CHIEF EXECUTIVE OFFICER, CENTRAL IOWA POWER COOPERATIVE, DES MOINES, IA; ON BEHALF OF NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Introduction

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to testify. On behalf of Central Iowa Power Cooperative's (CIPCO) member-owners, we sincerely appreciate the Committee's interest in rural energy issues.

My name is Bill Cherrier, and I am the Executive Vice President and CEO of Central Iowa Power Cooperative (CIPCO). CIPCO is a generation and transmission (G&T) electric cooperative in its 76th year of operation providing electricity to member cooperative systems across Iowa. CIPCO serves nearly 300,000 rural and urban residents and more than 13,000 small and large commercial and industrial accounts.

Electric cooperatives return excess revenues to our consumer-members. CIPCO is dedicated to efficient, cost-effective operations and has returned more than \$120 million to our member distribution systems since its inception. This commitment to cost-effective measures has created steady, affordable electric rates at a time of great change in the energy industry.

As a not-for-profit electric provider, CIPCO is committed to judiciously maintaining and growing a system that supplies safe, reliable, and affordable electricity around the clock. I offer the Committee a few key points based on CIPCO's experience and that of many other electric cooperatives:

- Rural Utilities Service (RUS) loans are critical to providing affordable, reliable power to rural America.
- The ongoing energy transition must be inclusive of all energy sources and incentives to support this transition should be accessible to all electric utilities.

- USDA is a key partner with not-for-profit electric cooperatives to serve our communities and provide benefits well beyond electrification.

Access to Capital Through USDA Rural Utilities Service

As urban areas began to electrify in the early 1900s, rural areas were being left behind. Rural community members recognized that the economics of the electric business were not working in their favor, so communities banded together to form electric cooperatives with the goal of powering rural homes, farms, and businesses. Using low-cost Rural Electrification Administration (REA) loans, cooperatives successfully electrified rural America and continue to provide reliable, affordable power to 42 million consumer-members in 48 states.

Rural Utilities Service (RUS)

Today, Rural Utilities Service (RUS) loans are as critical as they were in the early days of electric cooperatives. Cooperatives rely on RUS loans for basic investments in poles and wires, but also to invest in new technology to make their systems smarter and more efficient. As not-for-profit, consumer-driven entities, access to capital is one of our greatest challenges. Our obligation to provide our members safe, reliable, affordable electricity is only achievable if we have access to the resources to build necessary infrastructure. RUS loans meet this critical need.

The RUS Electric Loan Program relies on an annual appropriation from the agriculture appropriations bill. We are grateful for this Committee's support for robust funding and believe this strong support is recognition of the value of this financing to rural America and the reliability of electric cooperatives as borrowers. In fact, the RUS electric loan program generates revenue for the Federal Government—approximately \$214 million in FY 2021.

Loan Repricing

Roughly 500 electric co-ops hold approximately \$43 billion in RUS Electric Loans. Unlike a typical home mortgage, most of these RUS loans cannot be refinanced to take advantage of lower interest rates without penalty. As a result, many electric cooperatives still hold RUS debt with significantly higher interest rates than today's low rates, with few options for relief.

Only Congress can change this situation and there is bipartisan support for passage of the H.R. 2244, the Flexible Financing for Rural America Act, to allow RUS electric loans to be refinanced without penalty. This essential step will give co-ops the flexibility to best manage their financial circumstances while focusing on cooperatives' long-term stability and that of the communities they serve. Refinancing to today's rates could return billions in interest savings back to rural communities in the coming decades. An electric cooperative with typical RUS debt could save \$2 million per year in interest payments if it was to take advantage of current rates. Giving electric co-ops the flexibility to refinance existing RUS loans will enable them to meet the evolving needs of their consumer-members and continue their work as partners in the community's long-term economic future.

Loan Approval Backlog

Electric cooperatives have experienced a significant slowdown in the processing of work order approvals for recent projects. There are two primary reasons for these delays: (1) RUS lost experienced environmental staff to retirement in 2020 and a significant amount of institutional knowledge was lost, and (2) little work was done by electric cooperatives in 2020 due to COVID. Subsequently, RUS has faced a significant increase in the number of projects that need environmental reviews. Some electric cooperatives were under contractual deadlines for their projects that forced them to abandon RUS financing even though it was more costly to do so. RUS has made progress in training new staff and the backlog of approvals has been reduced. We are hopeful that RUS can continue to reduce this queue and expedite the loan approval process going forward.

Maintaining Reliability While Reducing Emissions

As a generation and transmission cooperative, CIPCO provides electricity to member distribution systems through owned assets and long-term power purchase agreements (PPAs)—contracts with third-party companies that own and operate the generation. CIPCO's diverse portfolio consists of wind, solar, hydro, landfill gas, natural gas, coal, and market purchases.

CIPCO's generation portfolio has evolved significantly with wind energy growing from 4.1% in 2010 to 29.9% in 2021 and coal dropping from 58.4% to 29.3% during that same time period. CIPCO is also investing in solar energy, including the 100 megawatt (MW) Wapello Solar LLC PPA and the 100 MW Coggon Solar LLC PPA scheduled for completion next year. Additionally, the 54 MW Independence Winds

PPA came online in 2021. At this time, CIPCO sells the Renewable Energy Certificates (RECs) associated with wind and solar purchases to further offset wholesale costs for member systems.

As we look to the future, intermittent resources such as wind and solar must continue to be complemented and supported by always-available baseload resources like coal and natural gas. System reliability depends on the ability to blend intermittent sources like wind and solar with firm, flexible, and dispatchable electric capacity. For this reason, CIPCO recently invested \$85 million in our existing Summit Lake generation plant, adding efficient reciprocating-natural gas engines that serve peak electric demand. This investment complements our intermittent wind and solar resources while ensuring the baseload generation necessary to meet the 24/7 power needs of Iowans and businesses in CIPCO's service territory.

Parity for Financial Incentives

As electric cooperatives across the country diversify their generation portfolios, it is critical that policymakers work constructively with industry to achieve these objectives while maintaining the exceptional reliability and affordability that American families and businesses expect and deserve. The Federal tax-credit structure prevents not-for-profit electric cooperatives like CIPCO from taking advantage of the tax benefit to directly build and own wind and solar generation assets. For cooperatives to reap any benefit from this transition, they must work with third parties that develop and own these assets. Direct-pay tax incentives would level the playing field for all electric providers, allowing co-op member systems and member-owners down the line to have equal access to a diverse power supply mix.

Rural Energy Savings Program (RESP) and Rural Energy for America Program (REAP)

Through additional partnerships with USDA, electric cooperatives are able to bring energy efficiency measures to their members, many of whom would not be able to afford these improvements. The Rural Energy Savings Program (RESP) offers low-cost financing to electric cooperatives for the purpose of implementing energy efficiency projects at their members' homes. We support continued growth of this program. However, we have found that the administrative burden at small electric cooperatives with limited staff can sometimes hinder opportunities to expand home energy efficiency programs. As a result, we also support a proposal to allow a small portion of a RESP loan to be used for administrative costs.

Additionally, the Rural Energy for America Program provides loans and grants to develop renewable energy systems and implement energy efficiency measures. Electric cooperatives have used REAP grants to partially finance community solar projects.

Consumer Benefits Beyond Electrification

Rural electric cooperatives were built by and belong to the communities they serve. Given this legacy of putting people before profits, they are much more than electric utilities in these communities. With USDA as a key partner, CIPCO and other electric cooperatives across the country are investing in their communities, including closing the digital divide, supporting business growth and expansion, and developing smarter community infrastructure.

Rural Economic Development Loan & Grant Program (REDL&G)

Through USDA's Rural Development Loan and Grant Program (REDL&G), CIPCO works with local businesses and other community groups to create jobs in rural areas. The program represents a mutually beneficial partnership between USDA, rural electric cooperatives, and local communities. In 2020, CIPCO secured \$8.7 million in ten loans and grants to support the development and expansion of local Iowa businesses and services, including small businesses in the industrial, professional services, and healthcare fields.

Broadband and Smart Grid Connectivity

USDA's Broadband Programs are essential to the rural communities we serve. More than 200 electric cooperatives are engaged in providing or deploying broadband to their consumers and up to 200 more are exploring the feasibility of providing broadband service independently or in partnerships. Affordable and reliable high-speed internet is critical for the health and growth of rural communities, providing connections for healthcare, telework, education, economic development, and so much more. Beyond connecting our students, families and businesses, fiber optic capabilities increasingly support enhancements to the electric grid. Smart grid technologies, often financed through the RUS electric program, provide electric cooperatives the ability to increase energy efficiency, reduce consumer bills and labor

costs, and improve the overall electric system performance. Federal investment will continue to be important in our efforts to close the digital divide. We urge Congress to provide the oversight needed to ensure that federally funded broadband projects are built to the highest quality standards and will stand the test of time.

Preparing for Electric Vehicle Growth

The market for electric vehicles is expanding rapidly and electric cooperatives across the country are working with the communities they serve to address electric vehicle charging needs. While electric cooperatives see opportunities for load growth, off-peak charging to flatten electric demand peaks, and increased engagement with their communities, there are also potential hurdles that we must navigate to ensure a smooth transition that retains the affordability and reliability of electricity.

As detailed in a letter submitted by CIPCO's national trade organization, the National Rural Electric Cooperative Association (NRECA), to the Committee in advance of your recent electric vehicle hearing, planning for nationwide access to charging is complicated and charging solutions may look different in rural areas than urban centers. Consumer behavior, for example, will vary. Many urban drivers will commute to and from work and charge their vehicles at home. While commuters exist in rural areas, we will also see vehicles driving *through* our communities, including delivery and freight vehicles, drivers traveling long distances for work or vacation, and fleet warehouses. Co-ops will need to shape and manage the electric demand and supply for EVs around system needs and capacity, whether that includes upgrading grid infrastructure, securing additional capacity, or implementing price signals to balance the demand for electricity.

The Federal Government can help facilitate this transition by providing financial support and technical expertise for EV charging infrastructure, including grid infrastructure. Access to data projecting EV penetration, particularly in rural areas, to help plan grid investments to match the growth will also be essential.

Conclusion

CIPCO is dedicated to delivering 24/7 energy that is affordable and reliable to Iowa households, businesses, farms, and communities. Nearly 900 electric cooperatives across the country have similar community-focused missions for the areas that they serve. As this Committee considers reauthorizing the farm bill, we look forward to continuing to work with you toward our shared goal of improving life in rural America.

The CHAIRMAN. Thank you, Mr. Cherrier. And now our third witness today is Dr. Patrick Gruber, who is the Chief Executive Officer of Gevo, Incorporated. Dr. Gruber, will you begin when you are ready?

STATEMENT OF PATRICK R. GRUBER, Ph.D., CHIEF EXECUTIVE OFFICER, GEVO, INC., ENGLEWOOD, CO

Dr. GRUBER. Thank you, Chairman Scott, Ranking Member Thompson, and all the Members of this Committee for the opportunity to provide testimony about renewable energy.

Gevo is in the midst of commercializing drop-in hydrocarbon fuels. It is the next-generation jet-fueled gasoline and diesel fuel. Net-zero hydrocarbon drop-in fuels are what the marketplace is interested in, and so that is what we are all about.

Now, in order to achieve net-zero fuels and chemicals, you need to do two things. One is replace the carbon by which that fuel is made and then replace the fossil-based energy that is used in the production process. Now, here is a concrete example. We are in the midst of designing our first world-scale net-zero fuel plant up in Lake Preston, South Dakota. We call it Net-Zero 1. It is expected to be operational in 2025. The total projected financed installed cost is expected to be about \$900 million. It will take in about 35 million bushels per year of climate-smart corn. This is low-till/no-till corn. It will produce about 430 million pounds of protein and feed products. It is a very large amount, 30 million pounds of oil,

and 50 million gallons of net-zero jet fuel, 10 million gallons of gasoline and diesel fuel will all be products from this plant.

Now, we are doing something unusual up there. We want a net-zero footprint. We don't want to use the grid electricity and natural gas if we can avoid it. Consequently, we are designing Net-Zero 1 to be off the grid. We are planning on building a 60 megawatt wind farm and an onsite water treatment anaerobic digestion plant that produces enough biogas to offset the need for fossil-based natural gas. We will also make green hydrogen. Lake Preston's future is going to be that it is a green energy hub.

The lessons we are learning up in our net-zero designs apply to other existing ethanol plants. If we can de-carbonize their energy, we can add jet fuel and hydrocarbon production to those facilities as well. It is fundamentally about renewable energy and displacing fossil-based energy and natural gas.

We believe that we can achieve a net-zero footprint because we use the Argonne GREET model to measure lifecycle emissions. Now, GREET is special because it takes into account the whole of the lifecycle all the way from capturing the CO₂ through growing practices and land use and energy used in production and the burning of fuels. We can get to a net-zero or even negative carbon footprint for these fuels, and that is measured at the tailpipe of a jet engine, which is amazing.

We could drive the CI score down further if we use carbon capture and geological sequestration techniques or, get this, simply by using no-till corn, it would drive the footprint to be minus 30 across the whole of the lifecycle even after the fuel is burned if we had used renewable energy production along the way.

Now, climate-smart agriculture, it makes a lot of sense. At Gevo, we intend to set up a business system that financially rewards farmers for using more sustainable ag practices. We think farmers should be paid for their corn and then be rewarded for the benefit of providing all of us in capturing carbon or improving sustainability through production processes. We had a press release about that today working with Farmers Edge, talking about how to use that data. It is available. We are going to figure out a way to monetize it and pay farmers for doing a good job.

Because we get paid by lowering carbon scores, improving the carbon emissions, eliminating fossil-based carbon, there are lots of carbon-accounting models used around the world. We need to use the best. That is the Argonne GREET model. It is the gold standard. It is the foundation for others. It has the most current scientific data. It is the most complete model. There is a model in Europe called the EU REDII. It is the standard model. It follows the GREET model closely. So does Canada's model. The California model uses GREET, but they simplify the agricultural inputs with averages for crops. Now, the RFS model follows GREET kind of the way California does, but it hasn't been updated in roughly 15 years or so.

There is a new model on the horizon called CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation). It is partially developed in a national model, but it is an outlier. It doesn't allow for sequestration, nor does it take into account better land management practices or better agriculture practices.

Now, since Argonne GREET is the foundational model for all the other models used around the world, we would like to see it used in policy here in the U.S. We would like to see improvements in the data for it, and USDA has a large role to play in making that happen down to the field level.

The USDA and farmers have done a terrific job of helping to improve agriculture and rural economies over the last 30 years. As I go around the world and talk about biofuels, I wish the rest of the world understood this. They don't. It is not food *versus* fuel.

The CHAIRMAN. You are right.

Dr. GRUBER. We can do both if we do this correctly and pay attention to it—

The CHAIRMAN. Correct.

Dr. GRUBER.—and count things accurately and just be transparent in the data. That is what we want to do. Thank you very much.

[The prepared statement of Dr. Gruber follows:]

PREPARED STATEMENT OF PATRICK R. GRUBER, PH.D., CHIEF EXECUTIVE OFFICER,
GEVO, INC., ENGLEWOOD, CO

Thank you, Chairman Scott, Ranking Member Thompson, and all the Members of this Committee for the opportunity to provide testimony about renewable energy. I am honored to share Gevo's perspective.

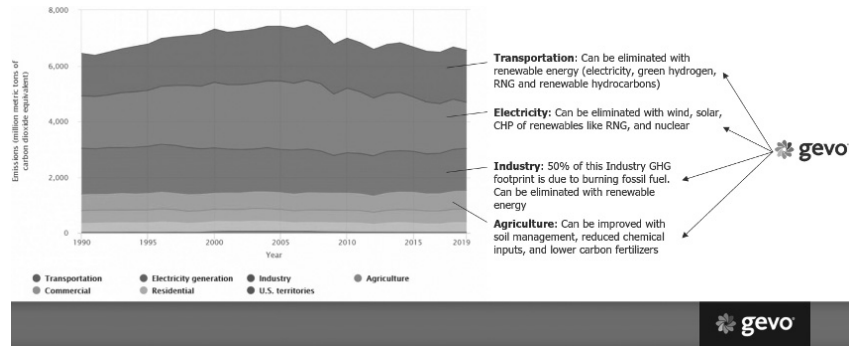
I am here to talk about renewable resource-based fuels, chemicals and plastics made possible in part by climate-smart agricultural practices and access to renewable electricity and gas. Gevo's primary emphasis is sustainable aviation fuel because of the market demand. We have the ability and technology to produce net-zero footprint fuels, that are expected to help lower greenhouse gas emissions. Technologies have advanced: from renewable carbon, it is now possible to make drop-in gasoline, diesel, and jet fuels, as well as many plastics and synthetic fibers. If the fossil raw materials are replaced with renewable carbon, and the energy used for production is renewable, then it is possible to eliminate the fossil-based footprint from the products even accounting for the whole life cycle from carbon capture, through production, and ultimate burning.

Whenever we are trying to solve problems, it is always good to start with fundamental data. This chart from the U.S. EPA (Environmental Protection Agency) shows U.S. greenhouse gas emissions.

Burning of Fossil Energy Creates the Vast Majority of GHG Emissions in U.S.

We can catalyze improvements in agriculture and food production, renewable energy infrastructure and production

U.S. Greenhouse Gas Emissions by Economic Sector, 1990–2019

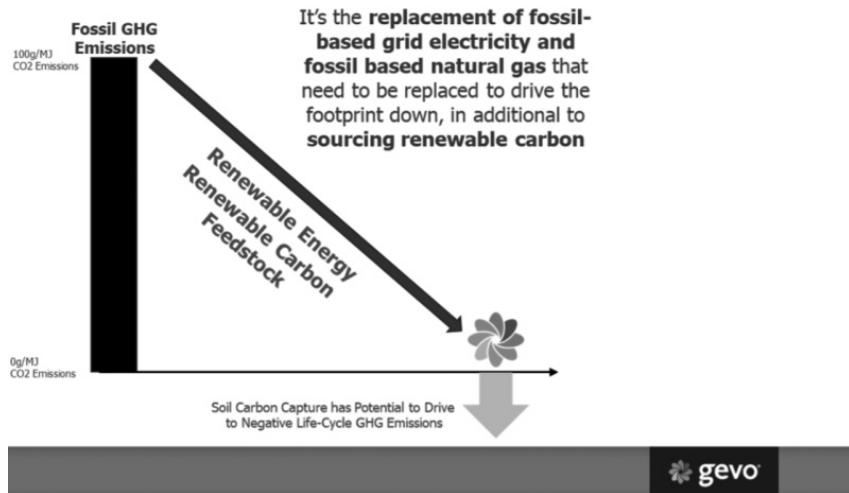


Source: U.S. EPA’s Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990–2019; <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>.

Source: <https://cfpub.epa.gov/ghgdata/inventoryexplorer/>.

In the U.S., roughly 75% of greenhouse gas emissions come from fossil fuels used in transportation, electricity production, and industry. Roughly 10% comes from agriculture, which includes land use changes, energy used in production of crops, and emissions from animals. The big problem is fossil-based energy in all its forms. We need to replace it. Since we need renewable carbon for making Sustainable Aviation Fuel (SAF), chemicals, plastics, and other hydrocarbon fuels and photosynthesis is the most cost-effective way to capture renewable carbon. We must pay close attention to what is done in agriculture. There is a fundamental belief that we have: when using agricultural land, priority must always be on food first. Always. When talking about food, it is nutrition that is most important. Nutrition is about protein. Land should be used to produce protein. Using corn as a feedstock, large quantities of protein and carbohydrates are produced as well as some oil. Protein and oil need to go to the food chain, carbohydrates, that have little to no nutritional value, make sense to use as feedstocks for fuels, chemicals, and plastics.

How To Achieve Net-Zero SAF: Eliminate Fossil Based Energy and Capture Renewable Carbon



As calculated by Argonne GREET model.

To drive SAF to a net-zero carbon footprint we need two things: sustainably produced renewable carbon, and renewable energy for the production processes. We be-

lieve the entire lifecycle must be accounted for, audited, and reported—from field to combustion. This means capturing data at the field level, being specific about the agricultural practices used in production of crops, being specific about land use changes, about changes to soil carbon, about the sources of energy used in manufacturing. Collecting and reporting factual data is what enables proper decision making. In the industry we talk about fossil-based GHG reductions as Carbon Intensity Score reductions or simple CI for short.

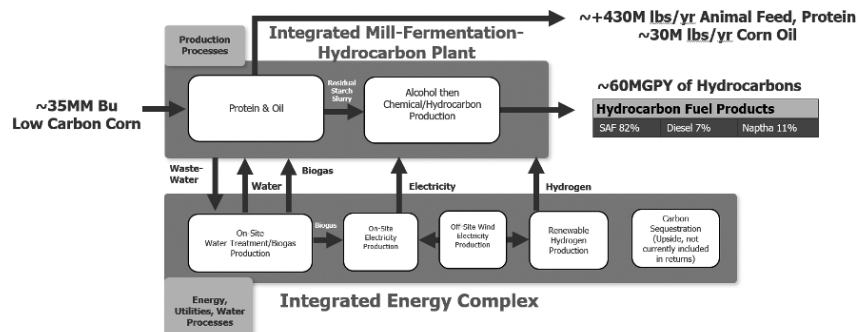
A real example can make this all more concrete: We’ve been developing the concept of a Net-Zero manufacturing plant for SAF. A Net-Zero plant is one that can produce net-zero GHG footprint products. We call the first plant Net-Zero 1 or NZ1. NZ1 is planned to be built in Lake Preston South Dakota, a town of 700 or so people. We’ve already proven that the technologies work; we are in the middle of engineering it. We expect it to be operational in 2025. The total installed, financed cost is currently projected to be about \$900 million dollars. (I suspect we are about to dramatically improve the lives of the people in and around Lake Preston). NZ1 currently is planned to take in 35 million bushels of climate-smart corn (produced with low till or no till technologies), separate the protein and oil sending it to the food chain, and using the carbohydrate to feed a fermentation to produce an intermediate ethanol feed which then goes into the hydrocarbon chemical plant to make the fuel. We expect to produce about 430 million pounds of protein products for animal feed and the food industry, about 30 million pounds of corn oil, and 60 million gallons per year of hydrocarbon fuels products, with the vast majority being SAF. NZ1 is being designed to be “off the grid”. We don’t want to use grid electricity, it’s too dirty, nor do we want to use natural gas for the same reason. NZ1 will have what we call an “energy complex” as part of the project. This would include a 60 megawatt wind farm, and our own water treatment plant, that produces enough biogas to offset the need for fossil-based natural gas. We also plan to produce green hydrogen with excess wind capacity. The investment in renewable energy is in the range of another couple hundred million dollars, and currently is planned to be deployed by partners. It’s the integration of the energy complex into the production processes, optimizing the entire system for driving the CI score down that enables a net-zero end product.

Net-Zero 1*: Being Engineered Now—Expected To Be Operating in 2025

*One site, Multiple “Off-the-Grid”** integrated plants: Mill, Protein, Oil, Chemical, and Hydrocarbon Plant*

Projected Net-Zero 1 Project EBITDA: ~\$150–\$200M/yr (Based on current assumptions)***, ~\$900M Total Capex (financed and installed)

Site: Lake Preston, SD



* Currently planned for Lake Preston, SD volumes of inputs and products to change.

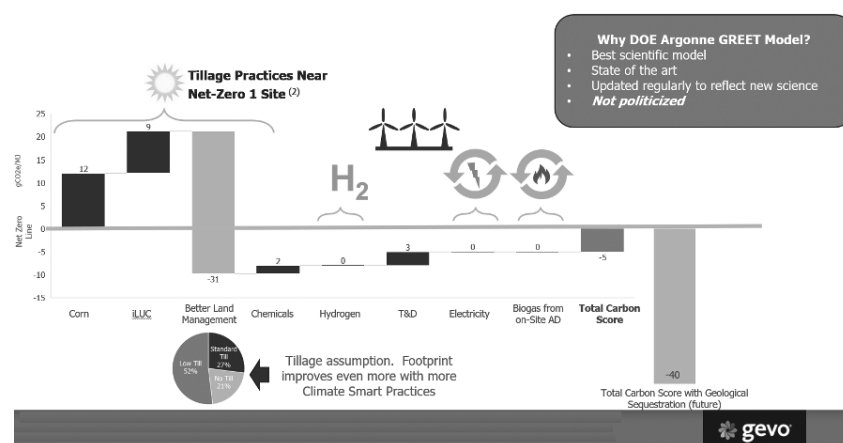
** The plant would be connected to the grid to supply energy to the grids, and also to take energy from the grids if needed. The plant is being designed to be self sufficient for its energy between what can be generated on-site and from the planned off-site wind farm. Gevo may also bring RNG to the plant from its RNG project. The financial projections on this slide are based on certain assumptions such as corn price, oil price, protein price, carbon value, and others that can change. The financial projections are also

based on current engineering and design work completed to date which work has approximately a plus/minus 50% error bar.

*** Estimated based on current assumptions, including those around future commodity pricing and future environmental benefit credit values, and preliminary engineering work.

So how do we measure GHG's and improvements? We use the Argonne GREET model. It is the most scientific and vetted model. It is the basis for all models used around the world today to count carbon through the full lifecycle. Using this GREET model, this is what the greenhouse gas emissions look like for our products produced at an NZ plant.

Net-Zero Project GHG Sources (Base Case)



Note: Gevo is actively working with Argonne to publish GHG values for Net-Zero 1 and future plants.

- (1) Better management defined by Argonne on average as low farming CI, and sustainable farming practices like cover crops.*
- (2) Depending on corn portfolio Gevo has, $-31\text{gCO}_2[\text{e}]/\text{MJ}$ value shown here will vary between 0 and -62 . On average Gevo is assuming a conservative portfolio that mainly sources low-tillage corn.

[The] calculation includes land use, climate-smart ag practices for growing corn, and renewable resource-based energy inputs allowing our NZ1 total carbon intensity score to be reduced to approximately negative 5. It is possible to drive the footprint even lower: our business system could capture more carbon in the soil, or we could capture the CO₂ emissions from the plant and geologically sequester them. If we were to use geological sequestration, then the CI score would drop further, potentially to negative 40. Keep in mind this is after it's been burned as jet fuel. The SAF in a tank at our plant would be negative 90 or more CI score. It is literally renewable energy in a tank and can readily be transported with existing infrastructure. The renewable energy can be used for engines as discussed so far, or even be used to feed generators to produce low GHG electricity. We also plan to make chemicals that go into plastics and durable goods. Using a NZ business system, the CI score of chemicals we could supply would be expected to be strongly carbon negative, so long as they aren't burned at their end of their life. We plan to sell primarily jet fuel, some gasoline and diesel fuel because these products have clear value in the marketplace. Chemical products and materials markets generally aren't valued for CI score reductions yet.

* **Editor's note:** there is no reference (1) in the chart, it has been reproduced herein as submitted.

Which of These Fields Has a Better Sustainability Footprint?



Roughly 50% of crop land uses low till or no till.
 If everyone used no till, we'd save 2% of Total US GHG emissions⁽²⁾
 With further advances in soil science, even more is possible



- (1) Assumes renewable energy is used in manufacturing and calculated using Argonne GREET.
- (2) Thompson, N., *et al.* (2021) "Opportunities and Challenges Associated with 'Carbon Farming' for U.S. Row-Crop Producers", Purdue University Center for Commercial Agriculture. Accessed on August 12, 2021 at <https://ag.purdue.edu/commercialag/home/resource/2021/06/opportunities-and-challenges-associated-with-carbon-farming-for-u-s-row-crop-producers/>. Image available on same site, powered by Bing, GeoNames, Microsoft, and TomTom.

For the sake of our land, food production, and carbon reduction: Agricultural practices are incredibly important to get right. Right now, only 50% of the cropland uses no till or low till practices. According to Purdue University, if everyone used low till or no till, we'd could save about 2% of the total greenhouse gas emissions of the United States—just through agricultural alone. With more advanced techniques, it could be possible to capture even more carbon in the soil. We intend to set up a system that rewards farmers for using climate-smart agricultural practices. Low till and no till allow the root systems of crops to remain intact and that means nutrients stay in the soil, water is retained, and it takes less chemicals per unit of product produced. It's a win all the way around for farmers who can make more money by producing and selling products that provide food, fiber, and sequester carbon simultaneously. Programs should be designed to recognize and reward these practices through the value chain.

Given the yield improvements in corn we don't see a need to increase the amount of land used for farming. Consider that with the projected yield improvements in corn by 2040, approximately 5 billion gallons of SAF could be produced, along with about 35 billion lbs of protein for the food chain with no land use change. If we decarbonized existing ethanol plants with renewable energy and our NZ concepts, then that ethanol capacity could at least in part be converted to SAF production, giving a market to ethanol amid a long run shrinking gasoline market.

Because carbon accounting is critical to success, we must have accurate, fact-based measurements of carbon throughout the whole life cycle. The GREET model is the go-to standard. It has the most current scientific data, it's the most complete with the most up to data. I congratulate the USDA and the DOE for collaborating effectively in putting the agriculture data into GREET.

Argonne GREET Model Is the Go To Standard for Continuing Carbon

How Regulations/Programs Are Compared to GREET LCA

CARBON EMISSION CONTRIBUTIONS	GREET	Ca. GREET 3.0	CORSIA	RFS	EU REDII	Canada CFS	RenovaBio
Farm Specific Cultivation	✓	✗	✓	✗	✓	✓	✓
ILUC Updated Land Use Data	✓	✗	✗	✗	✓	N/A	N/A
Land Management Changes	✓	✗	+/-	✗	✓	✓	✓
Carbon Capture and Sequestration Crediting	✓	✓	✗	✓	✓	✓	✓
Electricity Source	✓	✓	✓	✓	✓	✓	✓
Thermal Source	✓	✓	✓	✓	✓	✓	✓
Methane Avoidance for Manure Systems	✓	✓	✗	✓	N/A	N/A	N/A
Hydrogen Source	✓	✓	✓	✓	✓	✓	✓

✓ Always calculated ✗ Not calculated +/- Carbon emission calculated if positive, and not if negative N/A Not within system boundary



This graphic reflects current regulations as of March 2022.

On this chart you see a variety of models for counting carbon. All of these are based on the GREET model as a starting point. EU REDII is the standard European model for measuring carbon and it follows the GREET model through the full lifecycle. Canada does as well. The California model uses GREET, but they simplify the agricultural segment by using averages for corn and soybeans, not considering climate-smart ag practices, at this point. They would need to see specific data to make a change, I think. CORSIA is interesting in that it's a newer international model that doesn't allow for sequestration nor does it incentivize or account for better land management practices or better agricultural practices. It appears to be a biased model in my opinion, at least in these areas. As policy is developed, we would like to see the GREET model be the standard for domestic carbon accounting. Updated facts and science are what the GREET model uses and is the reason so many rely on it.

The USDA has done a terrific job of helping to improve agriculture and rural economies over the last 30 years of my career, I wish that people could better understand this. The USDA is right on track with programs that promote climate-smart agricultural practices, counting carbon, and re-powering our rural communities, especially enabling access to renewable energy.

To facilitate wider adoption of these practices, farmers need to have access to advanced equipment to help them lower their footprint, in addition re-instating the Rural Re-Powering Program is critical to producing net-zero hydrocarbons and in making carbon negative chemicals and materials for durable goods. Continued research at universities focused on soil science, how to improve agriculture, and measure more accurately what is happening at the field level, will help farmers adopt practices to improve their footprint. New net-zero products require the deployment of new capital and any programs that help defray the cost of that capital are welcome, so long as they are feedstock neutral, technology neutral and stand on merit.

We appreciate the work that the USDA and the DOE have done on GREET. Going forward we think it is important for additional harmonization of models and data for counting carbon. We'd like to see program funding for measuring carbon to build out a National CI calculator, and more comprehensive systems for field to fuel tank accounting. These programs will harness the might of the U.S. agricultural system to positively impact climate change, sustainability of agriculture, energy security, and our food supply.

Additional Resources:

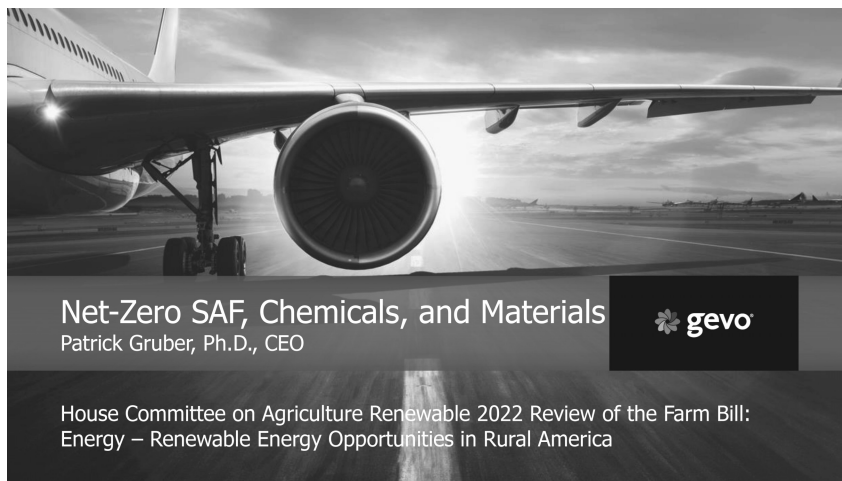
NET-ZERO 1 (1:52): <https://vimeo.com/540736374>

Gevo—Solving Energy (2:00): <https://vimeo.com/531083659>

Working Toward Zero Carbon Footprint (2:46): <https://vimeo.com/440219829>

Food and Fuel (1:19): <https://vimeo.com/440220247>
Where we are so far (1:21): <https://vimeo.com/416215170>
Our Process (1:01): <https://vimeo.com/416215010>
Replacing Fossil-Based Carbon (2:07): <https://vimeo.com/396232536>
Farming Carbon & Soil Conservation (1:54): <https://vimeo.com/379773448>
Sustainable Jet Fuel (1:59): <https://vimeo.com/379896308>
Partners with Mother Nature (1:49): <https://vimeo.com/416215170>
Going After the Whole Gallon (0:50): <https://vimeo.com/451342705>
We are Recycling Carbon (0:45): <https://vimeo.com/451341985>
Our Circular Economy (0:48): <https://vimeo.com/451341499>
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[ATTACHMENT]



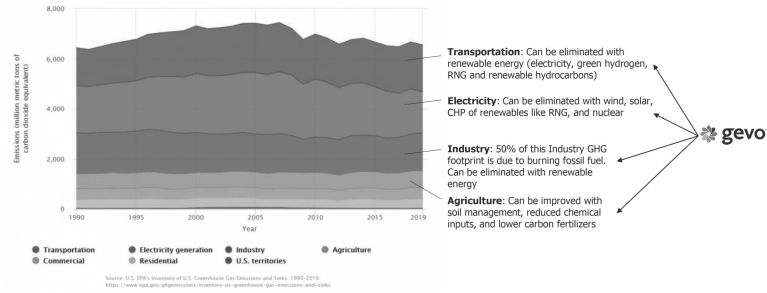
FUELS AND MATERIALS CAN BE MADE FROM RENEWABLE CARBON



BURNING OF FOSSIL ENERGY CREATES THE VAST MAJORITY OF GHG EMISSIONS IN US

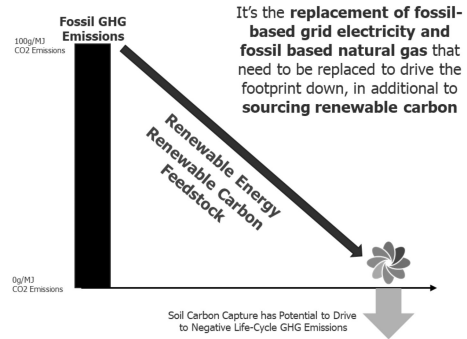
We can catalyze improvements in agriculture and food production, renewable energy infrastructure and production

U.S. Greenhouse Gas Emissions by Economic Sector, 1990-2019



Source: <https://cfpub.epa.gov/ghgdata/inventoryexplorer/>

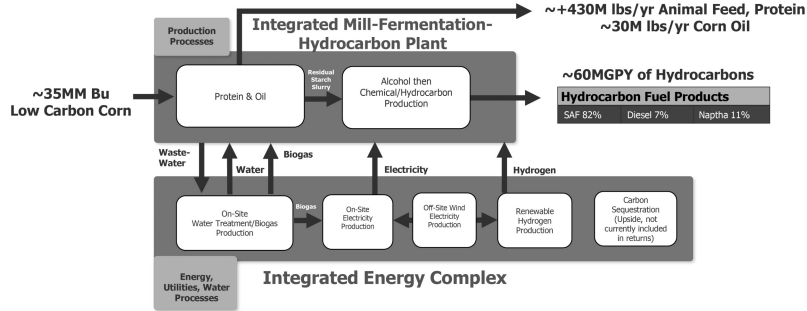
**HOW TO ACHIEVE NET-ZERO SAF:
ELIMINATE FOSSIL BASED ENERGY AND CAPTURE RENEWABLE CARBON**



As calculated by Argonne GREET model

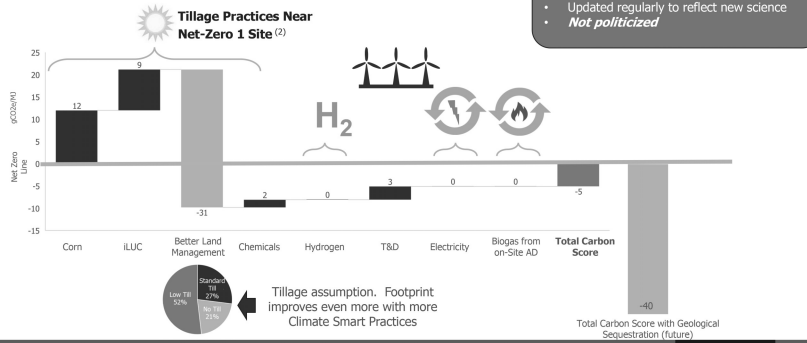
NET-ZERO 1*: BEING ENGINEERED NOW--EXPECTED TO BE OPERATING IN 2025

One site, Multiple "Off-the-Grid" integrated plants: Mill, Protein, Oil, Chemical and Hydrocarbon Plant
 Projected Net-Zero 1 Project EBITDA: ~\$150-200M/yr (Based on current assumptions)***, ~\$900M Total Capex (financed and installed)
 Site: Lake Preston, SD



*Currently Planned for Lake Preston, SD. Values of inputs and products are subject to change. **The plant would be connected to the grid to supply energy to the plant, and also to take energy from the grid if needed. The plant is being designed to be self-sufficient for its energy between what can be generated on-site and from the planned off-site wind farm. Gevo may also bring RNG to the plant from its RNG project. The financial projections on this slide are based on certain assumptions such as corn price, oil price, protein price, carbon price, and others that can change. The financial projections are also based on current engineering and design work completed to date which work has approximately a plus/minus 50% error bar. ***Estimated based on current assumptions, including those around future commodity pricing and future environmental benefit credit values, and preliminary engineering work.

NET-ZERO 1 PRODUCT GHG SOURCES (BASE CASE)



Note: Gevo is actively working with Argonne to publish GREET values for Net-Zero 1 and future plants.
 (1) Better management defined by Argonne as low farming CI, and sustainable farming practices like cover crops.
 (2) Depending on corn portfolio Gevo has, the iLUC values shown here will vary between 2 and -40. Our average Gevo is assuming a conservative portfolio that mainly sources low tillage corn.

WHICH OF THESE FIELDS HAS A BETTER SUSTAINABILITY FOOTPRINT?



Roughly 50% of crop land uses low till or no till.
 If everyone used no till, we'd save 2% of Total US GHG emissions⁽²⁾
 With further advances in soil science, even more is possible

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ARGONNE GREET MODEL IS THE GO TO STANDARD FOR COUNTING CARBON

HOW REGULATIONS / PROGRAMS ARE COMPARED TO GREET LCA

CARBON EMISSION CONTRIBUTIONS	GREET	CA GREET 3.0	CO2RIA	RFS	EI RED4	Canada CFS	RenovABio
Farm Specific Cultivation	✓	X	✓	X	✓	✓	✓
ILUC Updated Land Use Data	✓	X	X	X	✓	N/A	N/A
Land Management Changes	✓	X	+/-	X	✓	✓	✓
Carbon Capture and Sequestration Crediting	✓	✓	X	✓	✓	✓	✓
Electricity Source	✓	✓	✓	✓	✓	✓	✓
Thermal Source	✓	✓	✓	✓	✓	✓	✓
Methane Avoidance for Manure Systems	✓	✓	X	✓	N/A	N/A	N/A
Hydrogen Source	✓	✓	✓	✓	✓	✓	✓

✓ Always calculated X Not calculated +/- Carbon emission calculated if positive, and not if negative N/A Not within system boundary

THIS GRAPHIC REFLECTS CURRENT REGULATIONS AS OF MARCH 2022



WHAT CAN THE USDA DO?

- Assist development of "Climate Smart Agriculture"
 - Help farmers access equipment that enables
 - Fund unbiased research on capturing carbon in the soil
- Assist development of rural green energy
 - Electricity
 - Alternatives to fossil based natural gas
- Continue to work with DOE so the GREET model has the most current data
- Help, if possible, defray the cost of the new capital that is required


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FOR ADDITIONAL INFORMATION ABOUT GEVO

These short videos explain more about Gevo, our process, business system, and how we think about sustainability

NET ZERO 1 (1:52): <https://vimeo.com/540736374>
 Gevo – Solving Energy (2:00): <https://vimeo.com/531083659>
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The CHAIRMAN. And thank you, Dr. Gruber. And now our fourth and final witness today is Mr. Jay McKenna, who is the Chief Executive Officer of Nacero. Mr. McKenna, please begin when you are ready.

STATEMENT OF JOHN J. "JAY" MCKENNA III, CHIEF EXECUTIVE OFFICER, NACERO, INC., HOUSTON, TX

Mr. MCKENNA. Thank you, Chairman Scott. There we go. Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee, for holding this important hearing. My name is Jay McKenna, and I am the cofounder, CEO, and President of Nacero, a Houston-based company that is developing large-scale facilities to make affordable, low, and net-zero lifecycle carbon footprint gasoline from 100 percent domestic natural gas and renewable natural gas.

Nacero will be the affordable climate solution for everyday drivers. Our gasoline will be retail-ready, ethanol-blend compliant, and usable in today's cars and trucks without modification. We will make it possible for everyday American drivers to economically reduce greenhouse gas emissions and strengthen American energy independence without having to change their behavior, buy a new car or truck, or pay more at the pump. Now, I want to emphasize this point. Nacero's fuels will drop directly into America's pipes, pumps, cars, and trucks without any modification.

For a little bit of context, Americans drive about 3.2 trillion miles per year, 3.2 trillion miles a year. This is equivalent to 500 roundtrips between the Earth and Pluto, the Earth and Pluto. That represents $\frac{1}{2}$ of an entire lightyear that we Americans drive annually. Now, we do it in vehicles that stay on the road for an average of 12 years or more, likely longer now, given our path to a longer economic recovery post-COVID and a lot of the problems facing everyday Americans today. As long as these vehicles stay on the road, we need to do everything we can to make a better fuel with a lower lifecycle carbon footprint.

We at Nacero are building multiple large-scale modern manufacturing facilities that will use proven technology that incorporate carbon capture and run on 100 percent renewable-sourced power. Our gasoline made from natural gas will have $\frac{1}{2}$ the lifecycle scope 1, 2, 3 footprint *versus* traditional crude oil refining to make everyday gasoline. By incorporating renewable natural gas into our process, we can take that lifecycle carbon footprint all the way down to net-zero because capturing fugitive emissions is 80 times more potent from a greenhouse gas perspective over 20 years than normal combustion activities that produce CO₂.

The first of these facilities, a shovel-ready plant located outside of Odessa, Texas, will have the capacity to produce 1.4 billion gallons per year of this low- and net-zero carbon footprint gasoline, which is about the amount able to serve 4.5 million everyday Americans. It will support thousands of construction and operating jobs and generate \$25 billion for the local, regional, and state community. This plant alone will displace the need for us to import around 200,000 barrels a day of crude oil, interestingly equivalent to the amount that the U.S., prior to the invasion of Ukraine, imported from Russia. This plant in west Texas alone will displace the need for that amount of imports. We plan to break ground later this year and look forward to building additional facilities across Texas, Pennsylvania, and the rest of the United States.

America's farming community has much to gain with Nacero. We plan to be a major new consumer of renewable natural gas from dairy, swine, poultry, food waste, and landfill gas projects, materially growing demand for these critical resources. We forecast that each of our manufacturing plants would enable 100 new RNG anaerobic digester projects to be built, stimulating billions of dollars of additional new capital investment, creating thousands of jobs in rural America, but most importantly, generating substantial and recurring new income streams for the farming community. This is not pie-in-the-sky. The technology is proven, the market is there, and consumers are interested in low-carbon solutions.

With Nacero, everyday drivers, especially those in farming communities and rural America, can play a critical role in making real climate progress while in parallel ushering a new era of domestic energy security. Now more than ever we need large-scale solutions that can help reduce prices at the pump while in parallel allowing us to achieve our climate goals.

I appreciate the opportunity to speak to the Committee today and look forward to answering your questions.

[The prepared statement of Mr. McKenna follows:]

PREPARED STATEMENT OF JOHN J. "JAY" MCKENNA III, CHIEF EXECUTIVE OFFICER,
NACERO, INC., HOUSTON, TX

Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee for holding this important hearing. My name is Jay McKenna, and I am the co-founder and CEO of Nacero Inc., a Houston based company that is developing large-scale facilities that will make affordable, lower and net-zero lifecycle carbon footprint gasoline from 100% domestic natural gas and renewable natural gas.

Nacero will be the affordable climate solution for everyday drivers. Our gasoline will be ethanol blend-compliant and useable in today's cars and trucks without modification, thereby making it possible for everyday American drivers to economically reduce greenhouse gas emissions and strengthen American energy independence without having to change their habits, buy a new car, or pay more at the pump.

I want to emphasize this point. Nacero's fuels drop directly into America's pipes, pumps, cars, and trucks without modification.

Americans drive 3.2 trillion miles per year, the equivalent of 500 round trips from Earth to Pluto, using vehicles that stay on the road for an average of 12 years, and potentially longer now given our longer road to economic recovery. As long as these vehicles are on the road, we need to do everything we can to make a better fuel with a lower lifecycle carbon footprint.

We are building multiple large-scale manufacturing facilities that will use proven technology and incorporate carbon capture and 100% locally sourced renewable power. Our gasoline made from natural gas will have ½ the lifecycle Scope 1, 2, and 3 carbon footprint of gasoline made from traditional crude oil refining. Incorporating renewable natural gas will bring lifecycle carbon footprint of our gasoline to net-zero.

The first of these facilities, located outside of Odessa, TX will have the ability to serve 4.5 million everyday drivers, support thousands of construction and operating jobs, and generate \$25 billion for the local and regional community. We plan to break ground later this year and are looking to build additional such facilities across Texas and the United States.

America's farming community has much to gain. We plan to be a major new consumer of renewable natural gas from dairy, swine, poultry, food waste, and landfill gas projects, materially growing demand for these critical resources. We forecast that each of our facilities could support RNG demand from 75–100 new digester units, stimulating billions of dollars of new capital investment, creating thousands of new skilled jobs in rural America, and generating substantial new income streams for the farming community.

This isn't pie in the sky. The technology is proven, the market is there, and consumers are interested now more than ever. With Nacero, everyday drivers, especially those in farming communities and rural America, can play a critical role in making real climate progress while, in parallel, ushering a new era of domestic energy security and economic prosperity.

I greatly appreciate the opportunity speak to the Committee today and look forward to answering your questions.

[ATTACHMENT]

Lower and Net-Zero Lifecycle Carbon Footprint Gasoline from 100% Domestic Natural Gas and Renewable Natural Gas

It takes two barrels of crude oil, much of which is imported,¹ to make one barrel of gasoline.² The other barrel becomes byproducts, some of which have renewable alternatives, others of which have no market in the U.S. Using domestic natural gas to make gasoline avoids the production of crude oil refinery byproducts as well as the carbon drag associated with importing crude oil to make gasoline and exporting byproducts that cannot be sold here. Together they cut Scope 1–3 emissions for the production of gasoline by half.³ Integrating carbon capture and renewable power and substituting renewable natural gas (RNG) from farms and landfills for conventional natural gas can take the Scope 1–3 lifecycle carbon footprint of gasoline made from natural gas to net-zero.⁴

Compressed natural gas (CNG) has demonstrated the potential to put biomethane to beneficial use, to the benefit of both farmers and the environment. Gasoline has the potential to greatly increase its use because gasoline can be used in all cars and trucks without modification of the vehicle or the distribution network. Opening access to everyday drivers will increase demand for RNG while continuing to include ethanol and biofuels in our energy mix.

Nacero's first facility, a shovel ready, 93,000 barrel per day natural gas and renewable natural gas to gasoline manufacturing facility in Penwell, Texas, 8 miles east of Odessa, could double demand for agricultural biogas and support billions of dollars of investment in 75 to 100 new digesters and the additional farm income they would produce.

This scalable approach to lower and net-zero lifecycle carbon footprint gasoline also holds great promise for American energy independence and greenhouse gas reduction. Nacero's Penwell facility alone could reduce crude oil import demand by 200,000 barrels a day (the amount the U.S. imported from Russia prior to the embargo),⁵ and avoid up to 50 million tons per year of lifecycle CO₂e emissions.⁶

The technology is proven,⁷ the pipelines are in place, and construction and operation will create thousands of jobs and add billions to local economies.⁸

The CHAIRMAN. I thank each of you very much. I tell you, we are certainly fortunate to have the wealth of knowledge that you all have expressed just in your opening statements here.

And our Members, several of whom are online, they will be coming and going, but we are all very thankful that you all are here. And just from your opening statements, you all have certainly exposed how magnificently great this issue is. And we welcome you.

And we will recognize Members in order of seniority and alternating between Democrats and Republicans and each will be recognized for 5 minutes in order for us to get all of our questions in. And your lights will light up with a yellow light when you have 60 seconds to go. And I can't thank you enough. And just from what

¹ <https://www.eia.gov/tools/faqs/faq.php?id=727&t=6>.

² <https://www.eia.gov/tools/faqs/faq.php?id=327&t=9>.

³ See report by Trinity Consultants dated March 2, 2021, commissioned by Nacero, Inc., the developer of the Penwell project, which found that the Scope 1–3 emissions of a natural gas to gasoline facility with a 93,000 bpd gasoline production capacity would have a 25mm metric ton per year lifecycle carbon footprint and that a crude oil refinery of equivalent gasoline production capacity would have a lifecycle carbon footprint of 56M metric ton per year. <https://www.datocms-assets.com/41690/1617418475-carbon-savings-report.pdf>.

⁴ Nacero estimates that a 23/77 RNG/NG feedstock mix will bring the Penwell facility to net-zero.

⁵ <https://www.reuters.com/business/energy/us-imports-russian-oil-refined-products-2022-03-08/>. A 93,000 bpd gasoline refiner would consume 208,000 bpd of crude oil, as noted in the Trinity report and supported by EIA's crude-to-gasoline ratio (footnote 2).

⁶ <https://www.motortrend.com/news/gasoline-so-clean-its-like-swapping-to-11-million-evs/>.

⁷ <https://www.topsoe.com/processes/synthetic-fuels/methane-rich-gas-to-gasoline>.

⁸ The Bureau of Business Research, IC2 Institute, The University of Texas at Austin, "Economic Assessment of Nacero's Planned Investment: State of Texas, Permian Basin, and Ector County Impacts, 2022–2077," (2021). The Bureau of Business Research estimated \$27.8Bn GDP impact to the regional economy through all construction and operational activities. EPCs bidding the project are currently estimating 1500 concurrent construction jobs and 350 operating jobs.

you have just shared with us lets us know how opportunistic this is but also how challenging and complex this issue is.

And we on this House Agriculture Committee are quite capable of rising to the occasion to make sure that the information that you are bringing to us is incorporated into our 2023 Farm Bill. This is an historic time because we are crossing so many divides and moving into so many new frontiers, none more so than in our energy and how we are going to protect our planet.

So, Members, please, take care, keep your microphones muted so we can expedite our time and minimize any of the noise.

I now recognize myself for the first 5 minutes.

And I tell you, I don't know where to start. But I think I will start with you, Dr. Gruber, because I represent in my area the world's busiest airport. And I want to just ask you a couple of questions in terms of the investment in sustainable aviation fuel manufacturing that your company Gevo is developing. Can you tell me about that, and the nation wants to know and certainly my airport, which is the world's busiest, would like to just hear from you to discuss the novelty of this project and what factors have been of primary consideration in developing the plans for this project and what has to happen to make sure that this project is in operation as planned by 2025. I think that is your deadline. So can you share with us this extraordinary opportunity?

Dr. GRUBER. Sure.

Thank you for the question. We love Delta Airlines.

The CHAIRMAN. Yes, I do, too. I do, too.

Dr. GRUBER. And they are one of the leading companies. They actually walk the talk. And I am really proud to work with them. We have an off-take contract for them for 75 million gallons per year of sustainable aviation fuel. It is a take-or-pay kind of contract. That means that they are helping us with financing indirectly in that they are promising to buy the product if we make it. That allows us to go get commercial financing and that we have to turn up with the equity, which I think we already have on our balance sheet. So that is a great case. And I think that others in that alliance will also sign up. We have many other deals with other airlines as well.

We love the forward thinking of that airline, and aviation fuel is one of these things that I think everybody understands that when you are doing it with jet fuel, it has got to work in every—it is drop-in, works with every engine, every plane, no mistakes. It is super certified and all the rest.

The way that we make these fuels and what we think about is that we want it to be scalable. How do you make something large soon? We like carbohydrates as a feedstock. Now, carbohydrates obviously can be—they are the part when we grow stuff, it is the part that adds to calories. It is not nutrition. So corn is nice because you can separate the protein from the carbohydrates. The protein is all about nutrition, and oil. That goes to the food market. You take the things that will make us fat, we use them instead to make jet fuel.

There are other technologies that the USDA has funded and worked on which allow additional feedstocks, carbohydrate-based feedstocks in the future. And the technique is to take the carbohydrates, making an alcohol out of them, take the alcohol, and turn

it into jet fuel. That means that every ethanol plant in theory could go ahead and make jet fuel if we added on that unit of operations. The trick is—and this is where it is really important—you have to de-carbonize the energy and lower the footprint. All of us in industry have the same problem fundamentally in that we have to take grid electricity, grid natural gas. We need more biogas, we need renewable electricity for everybody, and that drives the footprint down and makes things more scalable.

The CHAIRMAN. Now, you are saying this will come on in 2 years, just 2 years from now. Are you on track to do that?

Dr. GRUBER. Yes. We are on track to do that. So by 2025 we should be producing, and then it is a question of how we scale up further and who we work with. We have oversold multiple plants already, and so it is all about getting them all financed and built. And the thing is, it is like every time you see us appear with somebody, you know there is going to be either renewable energy around us being deployed in rural America and/or sequestration. And so it is pretty darn interesting for what it means because, think about it, we are putting up a big wind farm, big biogas plants, we have an RNG facility we built, and we are going to make green hydrogen. The Mayor of Lake Preston said to me, “Pat, would you guys consider putting up EV stations because then people can drive those Teslas up here and we could have a hotel business.” He is right. We can do things like.

The CHAIRMAN. Well, that is phenomenal. Mr. Cherrier, you may have heard Under Secretary—I don’t know if you were here when Under Secretary Torres Small commented on electric vehicles. And our House Agriculture Committee had a hearing on that recently where we heard from energy providers and car dealers, convenience stores, and renewable fuel providers, among others, to get their take on the EV infrastructure needs in rural America. And I would like to know if your cooperative has considered making investments in electric vehicles in the infrastructure? And has there been interest in making these investments from rural communities in your area, state officials or otherwise?

Mr. CHERRIER. So we do make investments in the electric infrastructure and have promoted electric vehicles [inaudible] electric vehicles—excuse me.

The CHAIRMAN. Is your microphone on?

Mr. CHERRIER. I had my microphone off. I apologize.

The CHAIRMAN. All right, good.

Mr. CHERRIER. We do support and promote electric vehicle infrastructure. We do own electric vehicles ourselves to really understand them and how they operate. We have supported quite a few electric vehicle charging stations. Our members have programs so that their consumer members can actually install them at home. Our understanding is roughly 90 percent of charging will be done at the home, and we have programs that directly influence that. But we also have commercial chargers that are available for fast charging, so it is extremely important to allow electric vehicle use.

The CHAIRMAN. And you know that is so important right outside next to my district in Georgia we have a new electric vehicle plant going into operation. I think it is Rivian. Rivian, right. And so that

is one of the reasons why I wanted to have this electric vehicle hearing, because it is going to make a profound impact.

And now just before I go to Mr. Scott—and I know I am over time a bit—but may I ask, Mr. McKenna, you raised a very important point there. You said, I believe, 3.2 trillion miles a year. What does that say about—what are the pros and the cons? What is the negative or positive impact? I mean, 3.2 trillion miles per year of automobiles just in our country.

Mr. MCKENNA. Correct. Correct, Mr. Chairman. Yes, just in America. At Nacero the way that we really internalize that is that we have to be thinking about all-of-the-above solutions. That is such an enormous amount of challenge but also opportunity. Electric vehicles, biofuels, many different types of low-carbon solutions all have to happen in parallel.

One of the things that is really critical to us in thinking about addressing such a large challenge is affordability. And I think today in this hearing obviously this topic will come up. I think we are all seeing and feeling the pain at the pump right now. But affordability, affordability, affordability is critical to making a large-scale impact. And so in order to tackle the 3.2 trillion and de-carbonize that entire sector, industry, lifestyle, it really has to be all-of-the-above solutions.

The CHAIRMAN. Wow, this is very profound. The gentleman from Georgia, Mr. Austin Scott, I apologize for taking a little more time, but as you can see, this is some very profound information coming to us. And as we are developing our energy policies for this farm bill, this is one of the most challenging areas that we have to make sure we get it right.

The gentleman from Georgia, Mr. Austin Scott, is now recognized for his 5 minutes. Thank you.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And, Mr. Cherrier, I have a couple of quick questions for you. You mention your frustration with the loan approval backlog at USDA. Could you talk about that issue a little bit and what are the consequences of delays in loan approvals for electric cooperatives?

Mr. CHERRIER. So, as I understand your question, you want to know about the USDA REDL&G program?

Mr. AUSTIN SCOTT of Georgia. The backlog, yes.

Mr. CHERRIER. Oh, okay. So the RUS backlog that we have been experiencing. I can tell you last year it was an issue. We were working hard to get some very large loans approved through the RUS. We did work closely with the RUS, and I can tell you that with the additional staff that they have hired, they have greatly expedited and reduced their backlog quite a bit. I can also tell you we just recently received \$70 million from the RUS just last month and completing the large loan that we were trying to get accomplished. So we appreciate the efforts and applaud the efforts of RUS. And we also encourage them to continue to work on that to facilitate the new loans coming up and requests that they have.

Mr. AUSTIN SCOTT of Georgia. Okay. One of the other things that you mentioned on the loans is the ability to refinance legacy higher interest rate loans without penalty and the flexibility to do this. What are the reasons that they are giving you for not allowing you to refinance and any additional thoughts on that?

Mr. CHERRIER. I guess I have not heard an abundance of reasons why that is not allowed, but I can tell you that investor-owned utilities in the corporate world have the ability to consistently do that. Public power utilities with their public debt have the ability to consistently refinance and have been able to reduce their cost of service as a result. We appreciate the ability to work with the RUS, but that has been a barrier. But it also requires an act of Congress to get that changed. So I have not heard anything specifically that it shouldn't happen, and we have received a lot of support for implementing that.

Mr. AUSTIN SCOTT of Georgia. All right. Thank you. Mr. Olsen, the Environmental Law & Policy Center, I know that you advocate for renewable energy projects. One of the issues that we are facing—and we had this discussion earlier this morning—is the technology that we need, the raw materials that we need to manufacture the batteries and other things that are necessary for a shift require a tremendous number of rare-earth minerals. And one of our concerns is the dependency on foreign suppliers of rare-earth and critical minerals. It is my understanding that you all are partnered in some cases with organizations that are working to restrict mining of copper and other rare-earth minerals, and I would just like to give you the opportunity to speak about that. And we need these minerals, and we don't want to be dependent on China or other countries that are our adversaries for these minerals. So how do we obtain these minerals if we are not able to mine for them inside the United States?

Mr. OLSEN. Thank you, Congressman Scott, for raising that question. First, I want to clarify that to my awareness I am trying to think ELPC, Environmental Law & Policy Center, has not opposed mining projects in my memory. I have been there about 19 years now. So there is that. But you do raise a point. The transition to clean renewable energy will require a lot of different resources that we will have to find on the marketplace. And there is a lot of concern about some of the providers in China and some of the working conditions there that people face. And I am very happy to hear that many of the solar and battery companies, when they learn that their providers engage in unfair or exploitative labor practices, that they back out of those arrangements and find better ones, so that is great.

And also, it is important for us all to keep in mind that one of the best resources that we have is our technological know-how in this country. And we do have the current battery technology that is in the market today is lithium-ion batteries, but there is a lot of development underway, concerted effort to come up with other different batteries, technologies as well that would have less need for some of these rare-earth minerals that you speak to.

Mr. AUSTIN SCOTT of Georgia. So my time has expired. I was told—and I apologize if I am not correct—that you all were objecting to some mining that was going on in Michigan. I again just want to say when we talk about the environment, we are talking about the environment as a whole. I do not believe that cutting down forest lands to put up solar panels is a good return on investment for the environment.

With that said, Mr. Chairman, I appreciate the witnesses and I yield back.

The CHAIRMAN. Was there someone who wanted to comment to that? Dr. Olsen, was that you?

Mr. OLSEN. Oh, yes, I just want to say in his last point about cutting down forests to put up solar farms, that he makes a good point, that especially in terms of the carbon balance in the atmosphere, that that is a very problematic approach to siting solar farms. And, we ask developers not to do that. And, our forests are great mechanisms for trapping carbon and storing it, especially the older trees and stands, and we need to protect those. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, very good point there. I agree with you.

And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is now recognized for 5 minutes.

Technical adjustment for Ms. Spanberger. We will get back to her.

Let us go then to the gentlewoman from Washington, Ms. Schrier, is recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman. And thank you to our witnesses as well.

Earlier this morning, I asked and talked a little bit about the Rural Energy for America Program, the REAP program. And I would like to continue the discussion around improving access to that program. As this Committee started its review of the 2018 Farm Bill with an eye toward improvements that could be made next year, one of the topics that I have heard about is the complexity of applications and the need to improve access to USDA programs by streamlining these processes and these applications. And I hear that from farmers. I also hear that from conservation districts who often are charged with helping with these applications.

Mr. Olsen, regarding the fundamental importance of involving agriculture and rural communities in addressing the climate crisis, I co-chair the SEEC (Sustainable Energy & Environment Coalition) Climate and Agriculture Task Force, along with my friend and colleague Representative Chellie Pingree. I am also a cosponsor of Representative Pingree's Agriculture Resilience Act (H.R. 2803), which creates opportunities to directly enable agriculture to reduce greenhouse gas emissions and sequester and prepare for increasingly challenging weather conditions. And one of the provisions in that bill is focused on improving and expanding the REAP program through streamlining and increased funding. It specifically authorizes and directs USDA to develop pre-approval techniques for technologies and products that have already been demonstrated to work and then could be pre-approved. And I am curious what you think about this pre-approval or pre-approved products list and streamlined application idea.

Mr. OLSEN. Thank you, Representative Schrier. Those are great points. And thank you for your work on the Agricultural Resilience Act and the SEEC coalition that you mentioned.

You make great points that we need to continue to streamline the REAP program. The USDA has made progress in this over the years, but there is more progress yet to do. They need to strike a balance between the sound stewardship of public funds, as well as making the program simple to access for farmers and rural small businesses. And by having a pre-approved list of technologies, as you described, that allows simplification in a lot of ways.

So what we have seen in the states for some of the clean energy programs is that they have a rebate program for certain technologies that they have already vetted and that they qualify and they are sound technologies. And then they are able to do a rebate form that dramatically reduces the complexity of the program. We think that there is a role for that in REAP, and that would be a really good way to go.

In the 2014 Farm Bill, the REAP program was given a three-tier application system with the lowest tier being for the smaller dollar amount grants, and those would have the least complexity, and then the second tier and then the third tier. It is now 2022, and we suggest moving the threshold up for the lowest tier so that more producers can fit into that lower complexity application system.

Ms. SCHRIER. I think that is a great idea, and it opens us up to more of the small family farms that we are looking to support and bring into these programs. And I love the idea of having pre-approved techniques, technologies. We have a program called Sustainable Farms and Fields in Washington State that essentially compensates farmers for practices that are known to sequester carbon. And this seems like the same kind of thing where you reward or support or prove the technology and could streamline the process. So thank you for your attention to this. I appreciate your input, and I yield back.

The CHAIRMAN. Thank you. And now the gentleman from Iowa, Mr. Feenstra, is recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Mr. Chairman. It is great to have you all here today. And I heard your testimony. My district happens to be the home to more ethanol biodiesel plants than anywhere in the country. I have the largest Congressional district with the most ethanol and biodiesel plants, which is really exciting. So we are looking at a lot of different things to go zero-carbon emissions. And the development of carbon sequestration is one of those projects that is on the radar for us in several pipelines coming through Iowa.

Dr. Gruber, what does carbon capture and storage mean for the broader bioeconomy and the competitiveness of our nation's farmers and biorefineries under this new carbon-focused marketplace that we are living in?

Dr. GRUBER. Thank you for the question. Carbon sequestration has tremendous potential. The idea of it is you capture CO₂ and you geologically sequester it. That is one way of doing it. In Decatur, Illinois, where ADM is, they have been operating a site for over 10 years. And the technique works really well. And so it is worth about, in carbon score terms, 30 to 35 carbon points, so that means if an ethanol plant was in the 70s, now they are in the 40s for their overall footprint. It is a big deal for them. And so it is a

worthy thing. It needs to be developed over time. We believe it has potential. We want to see it available to as many people as possible because this greenhouse gas problem is really big. All solutions are required. This is a practical one, and it is valuable in the marketplace. People want the lower carbon fuels, so it has tremendous potential. It does require pipelines. It does require really good work around the geological sequestration and all the rest.

Mr. FEENSTRA. Yes, I really look forward to that for our ag producers because I really think they can directly benefit from this. It just gives them another added value to that output.

Mr. Cherrier, thank you for being here today. It is so nice and always good to see an Iowan here. It is great that you could come. You mentioned in your testimony that electric cooperatives have experienced longer wait times for RUS workorder approvals for recent projects. Can you walk us through what kind of impact this has on cooperatives' ability to plan for the future? Also, how does it impact your member-owners at the end of the line?

Mr. CHERRIER. So the financing delays that we experienced in the last year through the RUS caused us to borrow from other sources at a higher rate in the meantime. By having that delay, it increases our project costs. It could actually potentially delay project costs or projects if there are no other sources other than the RUS to borrow from. So those delays can be very costly. But again, we have seen RUS working towards improving that, and we have seen some improvement in that process in the last year, but I think more work needs to be done yet.

Mr. FEENSTRA. Yes. And then the same with that, given that cooperatives are not able to benefit from renewable energy tax credits, I have talked to you about this earlier, how would CIPCO benefit from direct pay incentives, and what results would Congress expect to see if we would create such incentives for electric cooperatives?

Mr. CHERRIER. Well, currently, the only effective way to do renewable projects is to actually monetize the tax credits. So we have to do that through a third-party developer, so we can't own the wind farm or solar directly. It has to be done through a development group that would own and operate the plant. By having these direct credits, we can actually invest in them ourselves. We can better plan for it, we can own it, we can reduce the cost of it, and we can lower the risk of the project itself. So, as a result of that, we will see not just lower costs for the cooperatives but we will see a lot more development among the cooperatives with renewables.

Mr. FEENSTRA. Yes, I just think it is a no-brainer. I mean, just thinking about the co-ops and we have quite a few in Iowa, I mean, this gives them great incentive to go down these paths.

So, Mr. Olsen, your testimony discussed the benefits of REAP program. However, it is my understanding that the blender pumps do not currently qualify for this program. Can you please share your insights on why this is?

Mr. OLSEN. Sure. Okay. I would be happy to. Thank you. Yes, blender pumps were included for a time in the REAP program about 10 years ago, and they weren't actually explicitly included in the legislation because they actually convey the renewable energy. They don't produce it. And REAP is for renewable energy systems

that produce renewable energy. And so as a result of that effort by the USDA, they have now developed other blender pump programs I understand. I took my eye off that ball when it got out of REAP. And I understand that they are moving forward with that. So, what also happened as a result of that was fuel dispensing of all types was taken out of REAP, including for RNG, and for EVs as well.

Mr. FEENSTRA. Yes, yes. Well, I thank you for those comments. And each one of you, thank you so much for being here. It is very important that we get to hear this information, and I am very grateful. I just look out to the future, especially in the Midwest and Iowa. We have a lot of great things to offer, energy independence in our area. Thanks again. I yield back.

The CHAIRMAN. Yes, you are absolutely right, Mr. Feenstra. This is a vitally important hearing. And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is recognized now for 5 minutes.

Ms. SPANBERGER. Thank you very much, Mr. Chairman. I appreciate this hearing, and I apologize that I had some technical difficulties when you first called on me.

Mr. Olsen and Mr. Cherrier, thank you so much for being here today. And I ideally have questions for both of you, but I would like to start with Mr. Cherrier. Sir, in your testimony you mentioned the need for Federal financial support and technical expertise for EV charging infrastructure in rural communities. Can you further elaborate on why we must ensure the USDA and the Federal Government are specifically focused on rural deployment of EV charging infrastructure? And what risks do you see that we might encounter if the grids in our rural communities don't receive the Federal investment that would make those rural EV charging stations fully deployed or accessible?

Mr. CHERRIER. Well, first of all, what is going to be seen, what we believe we will see in rural America is it lagging behind the urban areas in electric vehicle deployment. So anything we can work and do through Rural Development is absolutely critical. The electric vehicle infrastructure is going to be very important. We are going to want to encourage electric vehicles as they are available, but being able to have homes, farms pre-wired for it in advance of that, making it simpler and easier to do is actually critical to the deployment of electric vehicles because when somebody purchases a vehicle, the first thing they are doing is looking for a charging station. They don't know where to turn or what to do, and it dramatically increases the expense of the vehicle to put that kind of infrastructure in there. And then the type of charger, how fast they need it to charge is going to be critical.

Ms. SPANBERGER. And you talked about the fact that this is overall, just really important, but, I introduced the Electric Vehicle Charging Infrastructure for Farmers Act (H.R. 6390) alongside my colleague Republican Member Congressman Rice from South Carolina. And the bill would expand REAP to include electric vehicle charging infrastructure as an eligible expense under the program. Now, certainly, I am an advocate for additional funding to REAP overall, but I do think that a failure to address these basic infrastructure needs for charging in rural communities really will lead

towards a future where communities will be left behind when we talk about sort of any level of infrastructure, be it broadband connectivity, previously electricity, previously running water. Could you just comment a little bit about sort of what this means economically if we put ourselves on a path towards this potential divide, assuming you agree with the pretense that we are looking at creating a divide if we don't make these investments?

Mr. CHERRIER. Well, anything we can do to accelerate the adoption of electric vehicles like that to encourage the chargers out there I think is absolutely critical. The charger programs have worked effectively. We have been rebating on those programs for quite a few years now and have some uptake but not a lot of uptake yet. It is still—

Ms. SPANBERGER. And what is the benefit if there is one to a rural community to having this sort of uptake into the future?

Mr. CHERRIER. I am sorry, could you repeat that question?

Ms. SPANBERGER. Sure. And what would be the potential benefit to a rural community of having this uptake in the future of this technology?

Mr. CHERRIER. I think you are going to see a lot more from changing out the transportation infrastructure in the rural communities to economic development of the rural communities. You are going to have a lot more growth in rural areas when you have that kind of infrastructure available and being encouraged by Congress.

Ms. SPANBERGER. Thank you. And, Mr. Olsen, in the time I have left, I certainly want to thank you and the Environmental Law & Policy Center for your support of the REAP Improvement Act, another piece of legislation focused on the REAP that I have worked on. As you noted, REAP is a program focused on making our rural communities more energy-independent, resilient, efficient, all while reducing the cost to consumers. And you called for dramatically increasing the size of REAP's budget moving forward and reducing some of the cost-shares for applicants. Could you just elaborate on how expanding funding for REAP would benefit rural communities and farmers?

Mr. OLSEN. Yes, thank you very much, Representative Spanberger. The answer to your question is multifaceted. REAP currently, as administered by the USDA, they do an allocation every year of the funds, and they make sure every state has an allocation of funding. And that is a very fair approach and it kind of grew out of the history of some states grabbing the lion's share of the program in the past. But the result of that is that the funds wind up getting spread very thinly across the country and so some of the larger projects cannot be accommodated within REAP anymore as they used to be. And so that is a concern. And also there are many other uses, as you have brought up potentially for REAP and many others have brought up where it can help with the energy transition our country needs to undertake.

And REAP, as it serves every state—and it can serve every agricultural sector, just has tremendous potential right now to help agriculture and rural America to be at the table in this clean energy transmission and to have a role in the clean energy economy. But, it is like the line from *The Right Stuff*, “No bucks, no Buck Rogers,” and what goes into the program goes out in terms of education and

outreach and also funding. And we need that funding. We need that commitment of very significant funding to help the country deal with the challenges we face.

Ms. SPANBERGER. Thank you. Mr. Chairman, thank you for the extra time. I yield back.

The CHAIRMAN. Thank you, Ms. Spanberger. And now the gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. All right. Thank you, Mr. Chairman. I appreciate the time once again here.

Let me pose questions to Mr. Cherrier. You mentioned the importance of preserving baseload generation capacity, which I wholeheartedly agree with. Baseload reliable 24/7 power is pretty much invaluable. In California we have a lot of hydroelectric dams that have been a very long-time reliable source of 24/7 baseload power. Now, even with the situation, as good as they are, when we have a drought situation, we can have not the water available to turn the turbine. We had that happen on one large dam last year, the Oroville dam finally for the first time ever. So that is a factor.

But how is baseload electricity capacity different when you look at renewable resources in general here, when you look at baseload being able to be pretty much reliable 24/7 *versus* a lot of other so-called renewables.

Mr. CHERRIER. Well, I would say the baseload or fossil resource is absolutely critical to our operations. We have experienced times where renewables have not been available. We just recently in 2020 had the winter storm Uri, the polar vortex, where we were hitting temperatures below 20° at which the wind turbines will no longer operate, so we had no wind available. We had very little solar available, and we relied very heavily on our coal and natural gas plant during that period of time. And that is really what kept the lights on for us at that time. So it is critical for system reliability, especially through a very long transition period that we are going to be experiencing.

Mr. LAMALFA. Yes, it makes sense to me. How would biomass as another fuel that is controllable by human activity *versus* wind or sunlight, how would that play in as a possible part of the portfolio using forest products or ag trimmings, or things like that? How would you look at that as a baseload?

Mr. CHERRIER. Well, biomass is part of the all-of-the-above strategy. As I mentioned earlier, CIPCO has landfill gas, which is very similar to what you are doing with biomass fuels. I think the biomass fuels can be a productive part of the portfolio. It is reducing the slag in fuels that are probably eventually turning into methane and can be used to put on the system and actually reduce greenhouse gases.

Mr. LAMALFA. Or turned into the next forest fire fuel, too, yes. Okay. Thank you. Look, one more thought is talk to me about the difficulty of exchanging 1 megawatt of baseload for a megawatt of renewable power? What are the challenges there of basically converting a baseload 24/7 power to one that is considered part of the renewable?

Mr. CHERRIER. Yes, well, the real issue is we don't get one for one, so if it is a wind farm, you are lucky to get 20 percent of that counted as capacity. So if you have a 100 megawatt wind farm, you

might get a capacity credit of maybe 20 megawatts. And it isn't necessarily reliable. So that runs into an issue. We have a little more opportunity with solar because it is available during the day during our peak loads, but when those aren't available, it doesn't get counted. So we have to have a certain amount of baseload or total capacity available to the utility, whether the renewables are available or not. And there is no reliable alternative to these other backups right now of fossil fuels. It is just the way the world is today, and new technology may change that in 10 or 20 years, but that is where we are today.

Mr. LAMALFA. All right, thank you for those answers. Mr. McKenna, Nacero's mission is to prove that cleaner doesn't have to cost more I think is what was said earlier, so really, how is that looking when you have consumers facing their really high at-the-pump prices? What are the barriers to expanding this marketplace in order to have it maybe need not cost more? How is that going?

Mr. MCKENNA. Thank you, Congressman. So, in short, when we say clean doesn't have to cost more, really what that means is to be able to take low-cost, low-carbon feedstocks and convert those into everyday fuels. The ability for us to do that while integrating—

Mr. LAMALFA. What kind of stocks would that be? What are those stocks?

Mr. MCKENNA. Excuse me?

Mr. LAMALFA. What are those stocks?

Mr. MCKENNA. The feedstocks are natural gas, captured flare gas, renewable natural gas. So widely available 100 percent domestic feedstocks that we would be converting into drop-in fuels. The thing that is unique about Nacero is that we can do it at scale, which is really what drives down the cost of production for us. As we see it, the way that you actually modulate and manage price at the pump is by adding new sources of supply, diverse sources of supply into the system. And we think that with our business we will be able to hopefully help moderate longer-term some of reliance on foreign crude oil and traditional refining to improve the prospects for consumers.

Mr. LAMALFA. Good answer. I better yield back. Thank you for that, Mr. McKenna.

The CHAIRMAN. Thank you very much. And now the gentleman from Florida, Mr. Lawson, is recognized now for 5 minutes. Mr. Lawson, you may be on mute.

We will come back to Mr. Lawson.

The gentleman from Indiana, Mr. Baird, is recognized for 5 minutes. Mr. Baird?

Mr. BAIRD. Thank you, Mr. Chairman. I am here.

The CHAIRMAN. Good. Good to have you here.

Mr. BAIRD. Thank you. I appreciate that. I appreciate the hearing, and I appreciate you putting this together.

I have had other commitments here during this panel, so I didn't get to hear everything, so please correct me if it has already been covered. But, Mr. Cherrier, the one I asked the Under Secretary that was on earlier in the hearing with regard to livestock producers and leverage the methane digesters, and we have some of those in my district back in Indiana. I have been interested in that

kind of production or process for a long time. So producers have an opportunity to use that kind of technology, but it is often almost prohibitive because of the cost trying to get in. So I guess I am just asking you your perspective about the use of methane gas in the livestock industry to generate methane fuel.

Mr. CHERRIER. Well, natural gas is a form of methane gas. I think it is a great fuel that can be used and depends on where, I guess, the source comes from depending on its carbon impact, but we use natural gas very much as a reliability fuel and to be used when the other lower-cost renewables are not available. So I think it is absolutely critical. And the more we have available, the more it can be utilized, the more that can be captured and used to burn and used for power, the better.

Mr. BAIRD. Well, thank you. And I assume that you, by saying you are interested in natural gas, if we can do it through the use of livestock and food waste and all that sort of thing, you really don't care because it is natural gas anyway, and that has the same properties as that that comes out of the ground.

So, Mr. McKenna, changing gears here little, you seem to be doing a lot of—your company seems to be doing a lot of valuable work in low-carbon fuel, and that is a turnkey in its ability to reduce the carbon footprint, and every effort seems to be very similar to the improvements that biofuels offer. So how does your company perceive the lack of parity in government programs and incentives used with the electric vehicle industry compared to that of the turnkey low-carbon liquid fuels?

Mr. MCKENNA. Thank you, Congressman, great question. So when we are looking at the opportunity ahead of us, one of the things that we see with our business is the ability to utilize a huge amount of existing infrastructure, pipelines, storage terminals, pumps, and then existing vehicles to be able to help drive the energy transition and accelerate low-carbon solutions. I think when we are looking at the electric vehicle sector, we really see the investments that are being made in battery technology and charging and actual vehicle manufacturing themselves as purely complementary to what we are looking to do.

One of the unique aspects of our business which we really think is a total gamechanger here for the country is the ability to offer our products to consumers at really cost-competitive prices. So whereby certain consumers have the income or the faculty to go move into electric today, many folks across the country don't. What we have found is that many folks across the country, however, do want to do something better for the planet. So what we are looking to do is offer these low-carbon solutions to everyday drivers at cost-competitive prices. Scale is one piece that helps drive that. We don't have to invest in new pumps or new pipelines. The other piece of this is the ability to leverage and utilize existing vehicles on the road today.

Mr. BAIRD. Well, thank you very much, and I see I am down to about 45 seconds, so I yield back, Mr. Chairman.

The CHAIRMAN. All right, thank you. And now we will reach back for Mr. Lawson of Florida. You are recognized now for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman. And I welcome all the witnesses to the Committee.

And in Florida we have about 130 active dairy farms ranking us number one in the whole Southeast in dairy products. As you know, Mr. McKenna, digesters are quite expensive to install and implement on a dairy farm. Do you envision smaller regional collaborations, cooperative dairies to afford and achieve economy-of-scales to produce biogas? Does your company have any effort underway to assist dairy farmers so that you can have access to biogas?

Mr. MCKENNA. Thank you, Congressman. That is a great question. So where we really see the big gap in the market right now is for a new business or a new sector to come in to create substantial new demand so that new demand can drive and enable the construction of new anaerobic digester projects.

A couple of the things that we think the government can do to help support this effort is to be able to offer support during the construction phase. So simplifying and lowering the barrier for entry for folks that are looking to invest and build and operate these anaerobic digesters have access to capital.

The second piece that we really support as a business is longer-term incentives once these facilities come into operation that are all performance-based. Many of the programs that are offered by USDA and also other agencies support construction but also long-term operations. Ultimately, at the end of the day what you need is a business like ours which is the ultimate buyer of renewable natural gas. So all three of those things really have to work in concert for substantial growth to really happen.

Mr. LAWSON. Thank you very much. Mr. Olsen, in your testimony you mentioned the importance of simplifying the Rural Energy for America Program application process to include pre-approved technology. Can you explain in more detail what current technologies, programs could be pre-approved at this time?

Mr. OLSEN. That would be great. Thank you for that good question. The pre-approval process would allow the USDA to test and vet technologies before they are included in REAP under the pre-approved list. The kind of technologies that would be involved would be the smaller scale technologies which can be used by smaller farmers as well, small operations. And those would include a range of energy efficiency technologies. And pretty much anytime we use energy, if you look around in the room you are in, there is a way to use that energy more efficiently, to cut the energy waste that is built into the products, and that, frankly, has been built into a lot of the buildings and the infrastructure that we have today.

And so we envision that this could be put together in a package by USDA that would be available. So, we have a problem right now with small farms struggling and many failing these days in the country, but they would be able to cut their cost with energy efficiency and then also to use renewable energy as well. So the poultry growers across the South have used REAP for these purposes, and it has allowed them one of the rare opportunities they have as contract growers to increase their profit margins.

Mr. LAWSON. Okay, thank you very much. And, Mr. Chairman, with that, I yield back.

The CHAIRMAN. All right, thank you, Mr. Lawson. And now I would like to recognize our distinguished hard-working Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for his 5 minutes.

Mr. THOMPSON. Thank you, Mr. Chairman. You forgot to mention good-looking.

The CHAIRMAN. Good-looking all the way.

Mr. THOMPSON. No, Mr. Chairman, I appreciate you, and I really appreciate all of our witnesses on this important panel, this important hearing where we look at energy.

Energy is a significant cost, right? I look at energy as a cost and an opportunity for American farmers, and so I really appreciate the perspective that you all bring.

I want to kind of touch on the importance of drop-in fuels. And, Mr. McKenna, your company is producing drop-in renewable fuels. What does this mean for the consumers of the fuels that you are producing?

Mr. MCKENNA. Thank you, Ranking Member Thompson. So what this means is that at the end of the day you will be able to drive your 10 year old pickup down the road and make a consumer-based choice of whether to purchase a lower-carbon version of gasoline or the traditional old-school style of gasoline. What we think is a really important piece of unlocking not only American energy independence but really the horsepower of the American consumer is to be able to offer these products at cost-competitive prices so that anyone, regardless of their income level or how much money they have in their bank account, can participate in the clean energy transition.

When we say drop-in, the reason why that is really, really important is it does not matter what type of vehicle you own, how old it is. It is now flipping it technically from a carbon liability into a carbon asset. And so we think that is the ticket to broadening participation across the clean energy transition regardless of who you are.

Mr. THOMPSON. Well, it sounds like one big advantage for you and consumers and quite frankly the Federal Government is that the existing system of fuel distribution from pipelines to service stations can continue to be utilized with low-carbon and carbon-neutral fuels that you will be producing. What is the impact of not having to rebuild energy distribution systems from the top down or for everyone to have to buy a new car to facilitate lowering emissions?

Mr. MCKENNA. Well, the benefit is that you can really use \$5-\$6 trillion worth of investment that Americans have made over the years in vehicles and the underlying infrastructure to distribute fuels to everyday drivers. I think when we are thinking about what that means to the farming community specifically, that means that capturing renewable natural gas from agricultural facilities and landfills and food waste processing can tap into that multiple trillions of dollars' worth of sunk investment. What we really see at Nacero is being one of the lenses through which the farming community can tap into frankly the \$400+ billion a year liquid fuels industry. And, to be able to pair those two is what we think really

is going to drive new demand for renewable natural gas. So we think it is a very system-connected solution.

Mr. THOMPSON. Good. Well, Dr. Gruber, you are working on similar technology, I believe. Anything to add?

Dr. GRUBER. Yes, I agree with the comments that Jay had about the drop-ins and the benefit of the infrastructure and all the rest. And we are all about making the drop-ins. That is the focus. And when you make them, they really do need to be cost-competitive at the marketplace, and that is the game afoot. And the thing that people don't realize, these technologies exist already. We have just got to go deploy them. So when you think about it like this. Cash cost of production, it is on par with petrochemical stuff already. We have to pay for new capital to go build new capacity to build plants. That is the issue. And so now there is green value in the marketplace because of the variety of programs or from customers' perspectives, and that helps then to make it cost-competitive and we can go build things.

Mr. THOMPSON. Well, thank you. Mr. McKenna, part of your plan is to produce green gasoline relying on capturing methane from the anaerobic digesters. Can you talk, with a little bit of time left here, a little more about the impact that expanding the deployment and use of digesters will have in rural communities? And specifically, any thoughts on how do we do this, looking at—well, Pennsylvania, the average dairy size herd must be maybe 85 cows now. I am not sure where it is at today compared to California where you are measuring in thousands and tens of thousands. There is economy-of-scale. How does that work?

Mr. MCKENNA. Well, you hit the nail on the head, Ranking Member, is it comes down to economy-of-scale and overall footprint. I mean, one of the most important things about really completely changing the game on how much of these effectively free resources is captured comes down to partnerships with local natural gas distribution companies, companies like ours that are actually purchasing that captured renewable natural gas, but doing so in a manner that be albeit a little bit blunt. So thinking about this on a much more mass scale approach to facilitate a reduction in cost of capital, cost of borrowing, USDA programs help facilitate much of this.

But being able to be programmatic about how these anaerobic digesters are rolled out, I think one of the challenges right now that we hear when we talk to developers and farmers across our business is installing and developing each of these facilities is not only costly but it is also very manual because each contract has to be structured, and there is a lot of different moving pieces. So if there are ways that broad-based, performance-based programs that the Federal Government can use to be able to facilitate a much more blunt approach to growing the industry, we think over the long haul that is going to make it much easier for farmers to participate in some of these programs and, frankly, at the end of the day earn more income off of these projects so it is not just third-party developers that are taking the lion's share of the profitability.

Mr. THOMPSON. So obviously—and I have visited a lot of these digesters actually in different parts of the country even in my role as Ranking Member in my rural American agriculture visits. And

obviously they work really well where you have larger farms, you have the herd size to be able to provide that feedstock. It is a wonderful technology actually. But it seems to me this also works if you have a central digester someplace, whether it is with a company providing it or a cooperative or whatever fashion, and that digester serves perhaps—well, the size of our farms in Pennsylvania can be 30 or 40 farms who provide that daily feedstock. And what a blessing that is when the storage of that manure on the farm has always been a liability to either a small or large degree. It now becomes an asset. Whoever thought we would see a revenue stream off the manure, which is great for American farmers, but it is great for energy production as well. And so it is exciting, and this Energy Title is a really important part of the farm bill.

I do want to just for the bigger picture, I would just ask President Biden, his Administration, we are so desperately in need of affordable diesel fuel, we need propane, and we desperately need fertilizer right now. With the stroke of a pen, he could increase and open up more of our domestic American production today and do it in the name of an emergency because we are in a crisis. It is not COVID, but it is a food security crisis because of inflation. Inflation has sort of been self-imposed by the Administration with some of the actions, but it has been compounded by Vladimir Putin. And we have people around the world by this fall that are probably going to be experiencing—will certainly be experiencing hunger, starvation, and death by famine. And if we can provide the tools that our American farmers need, we can increase our yield. And I like to think of it this way. For every bushel an American farmer can provide above and beyond what they normally do, that may be a life saved somewhere else in the world.

So with that, Mr. Chairman, I yield back.

The CHAIRMAN. Well, thank you. And I want all the Members to know votes are coming up, but if there are others that want to bring in additional questions while we have the panel here, this is an important panel. And, Ranking Member, I want to make sure that we have time for your remarks, closing remarks before you have to go to the floor and then we have to adjourn.

This has been very profound. One of the real issues we certainly have to deal with here is our rural communities. Every time there has been a real serious movement of infrastructure in the history of our nation, the rural communities have been left behind. When we had electricity—see, I grew up—I was born in the country on a farm over in Aynor, South Carolina. If anybody knows about South Carolina, you know that is rural. And that convenience store, that one little store, there wasn't any grocery stores. The furthest we had to go was to Conway or Myrtle Beach to try to get to a grocery store.

The point I am making is that we do not and must not make that same mistake that we made with water, no running water until a while, no plumbing. And then we come with no electricity. We had to do candlelight. It is always left behind. And I am very worried about this when it comes to this revolution in electric vehicles. And that is why I had a hearing on this to open this up. And it is a good thing I did because here you have electric vehicles. Where are they going to get fuel? The culture of our country here is the con-

venience store. That is the gas station. And even on the byways, you have a culture of where to go and how to get your vehicle moving.

And so when we had this hearing, I thought everything would go well, but I find out that the convenience stores don't make the electricity. It is the power companies. And so the electric power companies, I had my good friends from Southern Company, Georgia Power here, and now there is a conflict as to where these folks are going to get the electricity, the electrical charging stations when the electric companies now are objecting. They want their own facility. They don't want to cooperate with the convenience stores. It is things like this that we are going to have to deal with.

The other one—and I would love for your comments on that because here we are dealing with this at a time where we are fashioning this new farm bill that will go into place and last 4, 5 years, 5 years. So what we put into place and we are at this revolutionary period where we are supposed to be moving electric vehicles where nobody has given thought to the infrastructure that needs to go in there. No one is giving thought to what are we going to do with the power companies that don't want to have these charging stations at convenience stores. They want their own. What do we here in Congress do? What kind of legislation do we put in place to deal with it?

And then we go to the whole climate change issue, and there are two ways in which we get into this carbon sequestration. You have some companies that want to bring the farmers in and compensate them on the amount of carbon they sequester when they don't even have the technology in the rural areas connected to the internet because of a lack of rural broadband to compensate that. And one company Bayer does the one thing that seems to be successful, and they do it with covered crops and no-till farming and compensate the farmers on that.

So what I am saying is before we end this, can you all give us some instructions, some of the things we need to do that we can incorporate in this farm bill to make sure that these rural communities who produce our food, our fiber, shelter from forestry are connected properly? And even right now we push so hard to get internet, and finally we got the money with a great bipartisan bill, but the money is sitting over there with the FCC. And then you have conflicts within the local Governments down there that they don't want to handle this themselves and don't want the USDA, which is in the best position because if it wasn't for the USDA, we wouldn't have been able to get the electricity down to them.

So I don't want to end this, but you all are at the apex of helping us to be able to design and deal with these issues because we need to address them in a way that we secure our rural communities to be connected. It is one thing to say we are going to have these electric cars. Where are they going to get them? We in the urban areas, we don't have to worry about that, just like we didn't have to worry about the electricity or running water.

So I just wanted to get that out. We are going to have to deal with it. What can you share with us in these next few moments? And, as I said, if there are any other Members that want to chime

in here, we have a few minutes before we go to vote that could help us with these challenges. Yes, Dr. Gruber.

Dr. GRUBER. Well, you are on much of the right track. Increased investment in the rural infrastructure for energy is crucially important. We just built an RNG plant. We had 20,000 cows. And you know what, we had to finance it ourselves. It just simply would have taken too long and too complicated to use any other money. We would love to work with more dairies and we think all manure should be turned into RNG. That is what should happen. We also need electricity, the work that you all are doing with all the wind farms you are telling me about and all the rest. It is a real—we are going to generate real energy in the center part of the country in the rural economy. We are not going to generate renewable electricity in cities. It is going to be out in the other places. So how do we get it from one place to another? How? How will that happen really?

We all can make renewable resource-based fuels, hydrocarbon, diesel fuel. Earlier, the conversation was about what we do about diesel fuel for tractors? We can solve that problem, no problem, it's cost-effective as well. That is straightforward. But we need the rest of the infrastructure developed to pull that off.

We see that there is a very important thing that has to be done around the carbon in the soil. Why doesn't every farmer who wants to do no-till have access to no-till equipment? Because that is the barrier. Where do they get the money? I have this poor guy named Jordan. We had him do the farming on some of our land near one of our plants, and Jordan said—I asked him, well, how come you are not doing no-till? He has got beautiful corn but—well, I inherited the farm from my father, and I can't afford the equipment. Well, I want to help Jordan. I think we should be helping people because that matters for cash and carbon in the soil. It allows them to make more money on their fields.

So you are on the right track. You have to count carbon, too, and document, and the USDA should be publishing data that is real fundamental around the benefits of agriculture because it is not well-understood across the world. And that creates complications in food policy.

Mr. OLSEN. I will just—

The CHAIRMAN. Thank you. Yes, sir.

Mr. OLSEN. Thank you, Mr. Chairman. Those are some very important thoughts and questions. A couple thoughts for you. You mentioned that the monopoly utilities insist that any power going through a charger has got to come from them. And, we wound up with monopoly utilities in this country because, historically, the bigger they got, the cheaper the cost was and they were natural monopolies. Well, a lot of that has changed now, and we really need to think twice before we extend those monopolies into new areas of our economy, to new energy systems.

We see also in Wisconsin an attempt by the monopoly utilities to monopolize EV charging as well, and there they say that you can't even put up your own panels, solar panels or wind turbines or what have you and use that for the EV charging. So they are really trying to control energy policies through exerting that mo-

nopoly, and we need to challenge that monopoly. And I hope our Representatives in Congress will do that.

Certainly, the financing for the charging systems is very important, and there are many programs in place through USDA which could be adopted for that. It might be REAP, it might be a part of the RUS or something similar to that. But that would help more people get into the market.

And throughout this hearing I have been thinking about the history of the cooperatives and with broadband and we needed cooperatives in the first place because the monopoly utilities did not want to extend lines into the country where there was a low number of customers per mile of line, distribution line, and so that is why, to raise the standard of living, we needed to create the Rural Electrification Administration, which was done.

Also another point raised earlier was what are some of the benefits to rural communities from electric vehicles? And just one that leaps to my mind is that it costs a lot less to fuel and operate an electric vehicle than an internal combustion engine. And so the people who would be able to take advantage of electric vehicles then would see lower cost for operation and so forth.

And may I address a point that came up earlier this morning?

The CHAIRMAN. Yes, please.

Mr. OLSEN. Thank you. A couple Representatives mentioned that their constituents are encountering problems with non-rural agriculture producers not being able to qualify for REAP. And back in 2009 that issue was resolved. That was a problem back then, but Secretary Vilsack—and I have a letter from him I would be happy to share—but Secretary Vilsack took action to make sure that all agriculture producers, regardless of location, qualify for REAP. So we need to make sure that the word gets out to all the Rural Development offices across the country and that any agriculture producer qualifies. Thank you, sir.

The CHAIRMAN. Yes, thank you. I think, Mr. McKenna, you had—

Mr. MCKENNA. Yes, I think one of the things, Mr. Chairman, that you hit on was an interesting challenge within I will say the broader clean economy, which is being able to connect the activity in farm communities around renewable natural gas capture with improving the resilience of those communities over the long haul with the fuels generated from the capture activity themselves. So rather than taking renewable natural gas and moving it all across the country that exposes those farming communities to higher energy prices, programs that may be of interest are—could be designed to be able to say for those communities that are undergoing that anaerobic digester activity are companies that are bringing those fuels back to those communities in a very circular local economy fashion.

Things like that that are performance-based incentives to help businesses and cooperatives and other folks do those low-carbon clean economy activities but also not just for the benefit of the global planet but for those local communities by increasing fuel production and sales locally, that helps create the right level of self-sufficiency and resilience I think that is going to help those communities over the long-term. So it is not just about capturing the

value of those low-carbon products but just making sure that those products end up being sold in the gas stations down the road from the farm or the cooperative in the communities where the underlying activity is taking place. It is a little bit of a novelty.

The CHAIRMAN. Yes, absolutely. And was there anyone—yes, Mr. Cherrier.

Mr. CHERRIER. Chairman Scott, you made some really good points about rural Iowa—or rural America. I think in terms of rural Iowa, but it is really about rural America.

The CHAIRMAN. Yes.

Mr. CHERRIER. And rural America was left behind with the energy transition 100 years ago where we were using kerosene lamps on the farms, where we did not have electricity until the rural co-ops came along.

The CHAIRMAN. And the national Rural Electric Act (Pub. L. 74–605) which put USDA in charge of that.

Mr. CHERRIER. Yes. REA changed it all for rural America.

The CHAIRMAN. Yes.

Mr. CHERRIER. We are seeing the same thing, opportunities with broadband today and the ability to invest. And there is a rural-urban divide yet on broadband access, and it affects the economic development of every single small community and farm in the U.S. when they don't have that access.

The CHAIRMAN. Yes.

Mr. CHERRIER. I would also tell you, you have the opportunity right in front of you today with the direct pay tax credits to make a huge difference for rural America on renewables. I can tell you CIPCO has kept our prices very low by adding renewables, by having on a larger scale access to those credits and using economies-of-scale for our solar farms. Our solar costs about a fraction of what it costs to put on rooftop solar and other ones and implement it at a very, very low cost, and our members have had low and declining prices as a result of that, so that is one thing we can do there.

The CHAIRMAN. And you called it direct payment credits?

Mr. CHERRIER. It is the direct pay credit. I believe it is under H.R. 2244—no, I am sorry, that is the other one. But, yes, there is direct pay tax credits where, today, co-ops cannot take advantage of those. The only way we can do it is through a third-party. So the investor-owned utilities, the urban areas have a distinct advantage on that over the rural co-ops today.

The CHAIRMAN. Yes, and—

Mr. CHERRIER. What a difference that would make.

The CHAIRMAN. Yes, one of the first challenges is how do we deal with these power companies who control the electricity with fore-going being able to partner with the convenience stores, which provide not just the gas but the groceries for our rural areas. Our rural areas don't have these big supermarkets that we have in the urban areas. I mean, it is just that simple thing.

Mr. CHERRIER. Mr. Chairman, we work with our small stores to have charging stations there. I also can tell you 90+ percent of the charging in rural America for electric vehicles is done at home or on the farm, so enabling that, because they are not going to be running out to a store to charge, they are going to be doing it where they park their vehicle 99 percent of the time, which is—

The CHAIRMAN. So how do they do that on the farm? I mean, they can put a charging station, but how do they hook up with the power company who provides the juice?

Mr. CHERRIER. It is very simple. The electric cooperative already has power to the farm. It is simply adding a level 1 or level 2 charger to the farm. And all they do is whenever they are on the farm is, anytime they can, have it plugged in. The utility then is directly connected to the vehicle, and it can either be charged or it can be discharged to help out the cooperative, too. That is how this market is going to evolve.

The CHAIRMAN. Well, tell me, let's look at the Southern Company. The Southern Company is the largest power source covering most of where we produce our food in the southeastern United States, Alabama, Florida, Georgia. It is all connected there, even going into Louisiana. And so they have said to me in our hearing that they don't want this relationship. They want to be in control of all the charging stations. So what must we do here in Congress? I mean, we can hash these out. We have time to do it, but you see the unique challenges that we have.

Ranking Member, I know you have to say something, and they are about to call votes, right?

Mr. THOMPSON. All right. All right.

The CHAIRMAN. I am sorry.

Mr. THOMPSON. Mr. Chairman, well, first of all, thank you for this hearing, and thank you to all the witnesses for your testimony once again. I just wanted to follow up with—I agree with you. The no-till, Dr. Gruber, you were talking about no-till and how important it is to have access to that new technology. Two things: Number one, we need the bill that this Committee passed unanimously on rural broadband to be on the House floor because it is a bill that addressed the digital divide.

The CHAIRMAN. Yes.

Mr. THOMPSON. And that connectivity is such an important part of precision agriculture, which is energy-efficient agriculture. It ties right back into what we are talking here.

I also wanted to point out if you are not familiar with it, check it out. Mr. Cherrier, it is actually one of your Members of Congress, Dr. Ashley Hinson—or Dr.—Congresswoman Ashley Hinson—

The CHAIRMAN. Yes.

Mr. THOMPSON. I just made her a doctor I guess. But Representative Hinson has the PRECISE Act (H.R. 2518, Producing Responsible Energy and Conservation Incentives and Solutions for the Environment Act). That is a part of a number of pieces of legislation that are conservative climate solutions, and it supports access to that precision agriculture equipment. I also point out the SUSTAINS Act (H.R. 2606, Sponsoring USDA Sustainability Targets in Agriculture to Incentivize Natural Solutions Act of 2021), which helps to generate more resources for programs like that. It creates a public-private partnership. That is a bill that I am leading, but it is a broadly supported bill that I am looking forward to getting both of those before the Committee here because I think it speaks to what we do.

And finally, when it comes to the energy sector, I want to celebrate what agriculture does for a healthier environment and a

healthier economy in terms of—and that is a marriage. It has always been kind of a rocky marriage between the ethanol industry and the petroleum industry. And I have both. I have Pennsylvania's only ethanol plant, but I also have the oldest commercial oil well drilled anywhere in the world in 1859. And that is a marriage that needs a little marriage counseling. Those two come together because the solution to climate is not electric vehicles. We heard that in the hearing that the Chairman put together.

The CHAIRMAN. Yes, we did.

Mr. THOMPSON. And electric vehicles are actually an attack on rural America. What it would do if they would actually take off and get anywhere close to the number of electric vehicles that President Biden would like to see, it would wreck the rural economy when you look at the ethanol industry and the oil industry actually. That is all rural America.

Whereas what we are doing—but I am very proud of what those two branches of the energy family tree are doing together to reduce emissions today. They have made for a healthier environment. It is a big part of why the American farmer, rancher, and forester are the number one champions for a cleaner environment, for reducing emissions of greenhouse gases and sequestering greenhouse gases. And those two branches of the energy family really contribute to a very healthy rural economy. And without a healthy rural economy, every American is going to wake up in the cold, dark, and hungry.

So thank you for this hearing, Mr. Chairman. I appreciate it.

The CHAIRMAN. Well, thank you, Ranking Member, and I thank our distinguished panel. You guys have really opened us up with some valuable information. We want to stay in contact with you because, as you see, we have to address these unique challenges dealing with energy and climate change and the impact that these two intersect with our most important industry, which is food. You can do without a lot of things, but you cannot do without food. And where is that food produced? In the rural areas. And we have to do better with making sure we bring rural America along with us as we are moving with all these new technological changes.

And so thank you all very much. We appreciate it, and it has been very helpful, and I am sure we will be calling on you a little bit more as we get into fine-tuning our farm bill because we have to—I think this is the most dynamic area of it. The future of our food security is at stake. And we have the capacity with drawing up this 5 year farm bill to put the kind of resources, the kind of money in to make sure rural America is dealt with at the front point of the spear, going forward.

So we thank you very much, and I want to thank our staff with Anne Simmons and Ashley Smith and all the fine ladies and of course my chief of staff, thank you all very much, and God bless you.

I have to say this. Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member.

This hearing of the Committee on Agriculture is now adjourned.
[Whereupon, at 2:55 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. XOCHITL TORRES SMALL, UNDER
SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE

Insert

Mr. LAMALFA. Well, let me reclaim my time. I am sorry. The existence of the programs is positive, is good, but how will they be implemented into actually getting facilities built or at least on the way to being built to utilize these materials and turn them into energy? How well are we doing since the 2018 Farm Bill has extended that initial program in other areas?

Ms. TORRES SMALL. Thank you so much, Congressman LaMalfa. And I think that this is a good fit for the section 9003 Program in terms of the large-scale investments that may be necessary, so I will defer to Dr. Neal on that.

Dr. NEAL. Yes, I would appreciate, and we certainly would welcome the opportunity to share more and to research and get back to you about any particular projects that are specific in terms of woody biomass that have been used in section 9003. I don't have that data on me right now.

Mr. LAMALFA. I guess my bottom line when you get back to me is what is actually being built or what is far along in the planning stage that we can count on then coming online? That is what I am looking at. So thank you. I will yield back.

There are two projects pending utilizing Section 9003:

Aemetis Advanced Products Keyes, Inc.

Status: USDA issued a guaranteed loan conditional commitment. The project team is working to complete the final plant engineering, finalize their equity drive and prepare for loan closing.

Description: The project will use renewable biomass (woody biomass) as a feedstock in a pre-gasification stage as a precursor to plasma arc gasification stage where a thermal residence chamber will capture hydrocarbons. The gas stream is then exposed to microbes to produce ethanol. This technology is combined using established entities; InEnTec, who is supplying the gasification and gas clean-up technology and LanzaTech, who is supplying the microbe and gas fermentation process that converts syngas to valuable products.

The integrated technology has a theoretical advantage in that it produces low ash content, however synthetic gasification and biological conversion of gasified biomass into ethanol is still an emerging technology.

Red Rock Biofuels, LLC

Status: Application is pending. Previous application withdrawn—Lakeview project was down-sized to a demonstration scale facility. Lakeview, Oregon plant is under construction. Once constructed, this plant will be used as the Integrated Demonstration Unit for the purpose of building a new plant, or expansion of the Lakeview facility.

Description: The project will produce drop-in renewable fuels from waste woody biomass using gasification and Fischer-Tropsch conversion technology.

SUPPLEMENTARY MATERIAL SUBMITTED BY ANDREW "ANDY" OLSEN, SENIOR POLICY
ADVOCATE, ENVIRONMENTAL LAW & POLICY CENTER

April 6, 2022

Thank you all for the opportunity to testify yesterday. It was a highlight of my career and made for a great adventure. Of course, my mom is also very proud.

A question came up from a couple Reps. regarding the eligibility of non-rural farmers. Apparently their constituents have been told they are ineligible.

This is not true. One can see this in the rule, at 4280.112 where it says "agricultural producers and rural small businesses." It does not say "rural agricultural producers." Also, please find attached a letter to me from Secretary Vilsack, circa 2009, agreeing with that position as well as some of the materials from that effort. (It seems the name "Rural Energy for America" may have contributed to this misunderstanding.)

I hope you can let the Members know and also share this with USDA, as will I. Perhaps this needs to be made explicit in the next farm bill.

Thanks!

ANDY OLSEN

Excerpt from USDA RD Instructions for Part 4280: Loans and Grants, 4280-B Rural Energy for America Program *

[<https://www.rd.usda.gov/files/4280b.pdf>]

Renewable Energy System and Energy Efficiency Improvement Grants

§4280.112 *Applicant eligibility.*

To receive a RES or EEI grant under this subpart, an applicant must meet the requirements specified in paragraphs (a) through (e) of this section.

(a) **Type of applicant.** The applicant must be an agricultural producer or rural small business at the time of application. *For-profit Rural Small Businesses that provide long-term care services that benefit residents, such as nursing homes and assisted living facilities, are eligible. For-profit Rural Small Businesses that provide short-term housing, such as hotels, are also eligible. Newly formed special purpose entities or equivalents that are clearly created solely for the circumvention of REAP regulatory provisions (see examples in (c) below) are not eligible.*

ATTACHMENT 1

March 23, 2009

Hon. TOM VILSACK,
Secretary,
U.S. Department of Agriculture,
Washington, D.C.

Dear Secretary Vilsack:

We, the undersigned organizations, encourage the USDA to adopt rules for the Rural Energy for America that do not discriminate against agricultural producers based on their location, in time for the 2009 program.

The Food, Conservation, and Energy Act of 2008 (“Farm Bill”) describes eligible recipients as “agricultural producers and rural small businesses.” Currently, the USDA denies eligibility where an agricultural producer’s project is located in a non-rural area. The “rural small businesses” language does signal a clear statutory intent to limit eligibility for small businesses to those located in rural areas.

We offer these other reasons in support of a non-exclusionary implementation of the Rural Energy for America (REAP) program:

- By excluding non-rural agricultural producers, USDA is limiting the potential success of the REAP program. Non-rural producers include greenhouse and nursery operations as well as specialty crop producers. These producers tend to have greater energy needs and niche opportunities for clean energy, which are too often lost opportunities under current rules.
- We understand the mission of the United States Department of Agriculture to be to serve *all* U.S. agricultural producers, not just those located in rural areas.
- The rural/non-rural dividing lines for implementation of this program result in unfair eligibility. For example, in Ohio one grower is excluded only for being on the wrong side of the street. Another grower is ineligible by ½ mile.
- This exclusion serves no useful public purpose that we can determine, or, at least, that the USDA has enunciated. If the USDA continues this restriction we hope you will explain the reasons for it.
- With the increasing interest in “local food” in America, food is increasingly grown near urban (non-rural) areas.
- With the growth of America’s urban areas, many formerly rural agricultural producers are now non-rural under the USDA definition through no fault of their own. Withholding program support intended for agricultural producers can hasten conversion of these lands to urban uses.
- In other programs the USDA has a different set of rules. For example, under the Value-Added Grant Program, projects can be located in non-rural areas. USDA should also explain why two criteria would exist for similar programs.

We believe, given the new statutory provision and USDA definitions of “agricultural producer,” the Department should recognize that any agricultural producers, including greenhouse or nursery operations, are eligible for the REAP program. We

* **Editor’s note:** the instructions, Parts A, B, D, and E are retained in Committee file and are available at <https://www.rd.usda.gov/resources/directives/instructions>.

call on the USDA to recognize this fact and implement the REAP program, starting in 2009, to serve all agricultural producers regardless of location.

Best regards,

Alabama Nursery & Landscape Association	Michigan Green Industry Association
American Nursery & Landscape Association	Minnesota Nursery & Landscape Association
Arizona Nursery & Landscape Association	Mississippi Nursery & Landscape Association
California Association of Nurseries & Garden Centers	Montana Nursery & Landscape Association
Center for Innovative Food Technology	National Christmas Tree Association
Climate Solution's Harvesting Clean Energy	New England Nursery Association
Colorado Nursery & Greenhouse Association	New Jersey Nursery & Landscape Association
Connecticut Green Industries Council	North Carolina Nursery & Landscape Association
Connecticut Greenhouse Grower's Association	OFA an Association of Floriculture Professionals
Connecticut Nursery and Landscape Association	Ohio Landscape Association
Environmental Law & Policy Center	Ohio Nursery & Landscape Association
Florida Nursery, Growers & Landscape Association	Oregon Association of Nurseries
Georgia Fruit and Vegetable Growers Association	Pennsylvania Landscape & Nursery Association
Georgia Green Industry Association	Perennial Plant Association
Idaho Nursery & Landscape Association	Society of American Florists
Illinois Green Industry Association	South Carolina Nursery & Landscape Association
Indiana Nursery & Landscape Association	South Dakota Nursery & Landscape Association
Irrigation Association	Southern Alliance for Clean Energy
Kentucky Nursery & Landscape Association	Tennessee Nursery & Landscape Association
Louisiana Nursery & Landscape Association	Texas Nursery & Landscape Association
Maine Landscape & Nursery Association	Utah Nursery & Landscape Association
Maryland Nursery & Landscape Association	Virginia Christmas Tree Association
Massachusetts Nursery & Landscape Assn.	Virginia Green Industry Council
Maumee Valley Growers	Virginia Nursery & Landscape Association
Michigan Floriculture Growers Council	Wisconsin Landscape Contractors Association

ATTACHMENT 2

July 29, 2009

ANDY OLSEN,
Senior Policy Advocate,
Environmental Law & Policy Center,
Madison, WI

Dear Mr. Olsen:

Thank you for your letter dated March 23, 2009, to the Department of Agriculture (USDA) detailing your concerns applicable to agricultural producers and the definition of rural areas pertaining to the Food, Conservation, and Energy Act of 2008. We understand your concern that the Rural Energy for America (REAP) program does not support all agricultural producers, specifically, those located in non-rural areas.

Please be advised that USDA plans to implement a regulatory change that will allow agricultural producers located in non-rural areas to apply for assistance under the REAP program. We anticipate implementing this change in Fiscal Year 2010. If you or the representatives of the other organizations that signed your letter have any questions regarding this matter, please contact Bill Smith with the USDA Rural Development Business Program Energy Division at (202) 720-1400.

Thank you for voicing your concerns and bringing this important issue to our attention. Please share this response with the other organizations that also signed the letter.

Sincerely,



THOMAS J. VILSACK,
Secretary.

ATTACHMENT 3

ELPC Farm Energy Backgrounder

*REAP Was Intended To Be Available To **All** Agricultural Producers*

Conceived in 2003, the Section 9006 clean energy program, now the Rural Energy for America Program (REAP), provides agricultural producers and rural small businesses financial assistance to produce clean power and improve their energy efficiency. With annual funding of \$55 million or more, it is a cornerstone of the Farm Bill's Energy Title.

The Problem

Since 2003, USDA has prohibited farmers and other agricultural producers in non-rural areas from applying for REAP funding, even though the statute (as amended in the 2008 Farm Bill) states clearly that all agricultural producers are eligible for the program: “the Secretary shall provide loan guarantees and grants to agricultural producers and rural small businesses.”

Due to USDA’s restriction, many agricultural producers cannot use REAP because they are not in rural areas (in general, areas with less than 50,000 people). This restriction is especially unfair for greenhouse growers, specialty crop producers and others who operate in formerly rural, now-expanding urban/suburban areas. And, with the growing interest in locally grown food, more agricultural producers are farming in areas closer to larger towns and cities.

USDA Should Remove the Rural Restriction for Agricultural Producers

USDA has correctly followed statutory intent on the “rural” issue for other programs, so it can do the same for REAP. For example, the statutory language for the Value-Added Producer Grant program and Agricultural Innovation Center Grant programs do not limit their applicability to rural areas. USDA, in responding to public comments expressing concern that those programs might only apply in rural areas, explained that those sections in the farm bill—unlike another program which explicitly specified only rural areas—contained no such restriction and so the programs applied anywhere:

The legislation authorizing the Rural Cooperative Grant program specifies that the grants are to be used to facilitate the creation of jobs in rural areas. *The Value-Added Producer Grant and Agricultural Innovation Center Grant programs do not have the restriction of facilitating the creation or retention of jobs in rural areas.* Therefore Rural Cooperative Development Grant facilities must be located in rural areas, but Value-Added Producer Grant and Agricultural Innovation Centers do not.

69 *Federal Register* 23421 (2004).

USDA should apply REAP’s rural restriction only to rural small businesses, since that’s what the statute says. REAP contains no similar restriction for agricultural producers, so USDA should make REAP available to all producers, including those in non-rural areas.

SUBMITTED LETTER BY SARAH GALLO, VICE PRESIDENT, AGRICULTURE AND ENVIRONMENT, BIOTECHNOLOGY INNOVATION ORGANIZATION

April 5, 2022

Hon. DAVID SCOTT,
Chairman,
House Committee on Agriculture,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
House Committee on Agriculture,
Washington, D.C.

Dear Chairman Scott, Ranking Member Thompson, and Members of the Committee:

The Biotechnology Innovation Organization (BIO) is pleased to submit a statement for the record to the United States House of Representatives Committee on Agriculture hearing entitled, “A 2022 Review of the Farm Bill: Energy—Renewable Energy Opportunities in Rural America.”

Introduction

BIO¹ represents 1,000 members in a biotech ecosystem with a central mission—to advance public policy that supports a wide range of companies and academic research centers that are working to apply biology and technology in the energy, agriculture, manufacturing, and health sectors to improve the lives of people and the health of the planet. BIO is committed to speaking up for the millions of families around the globe who depend upon our success. We will drive a revolution that aims to cure patients, protect our climate, and nourish humanity.

As Congress begins the process of authorizing the next farm bill, BIO applauds the Committee for examining renewable energy opportunities in rural America and for inviting Pat Gruber from our member company Gevo to serve as a witness.

¹<https://www.bio.org/>.

A farm bill centered on innovation stands to incentivize the adoption of cutting-edge technologies and practices, resulting in benefits to the environment and rural economies. Further, supporting biobased technologies, such as sustainable fuels, renewable chemicals and biobased manufacturing is crucial to agriculture being part of the solution to the climate crisis and fostering energy security.

The Benefits of Innovation

Biotechnology is enabling a dramatic paradigm shift in the production of fuels and chemicals. Modern biorefineries are converting domestic sources of renewable biomass, wastes, and residues into sustainable low carbon fuels, chemicals, and products. In turn, the sector creates high paying jobs, particularly in rural parts of the country where renewable biomass is grown and in manufacturing communities where carbon can be captured and utilized. Developing and employing domestic feedstocks will help reduce the United States' dependence on foreign energy and create an energy sector that reduces greenhouse gas emissions and enhances human health through improved air quality.

Sustainable fuels producers and renewable chemical manufacturers need comprehensive legislation, like the farm bill, to maintain U.S. leadership in the biobased economy. Programs must be supported with robust funding and streamlined and expedited regulatory pathways for breakthrough technology solutions.

At its core, the farm bill promotes durability. The next farm bill offers a timely opportunity to examine innovation's influence on the resiliency of our economy in the face of global challenges. It also provides an unparalleled platform to grow awareness and trust in the innovation ecosystem, so more communities and consumers can embrace deployment of biobased products with confidence and enthusiasm.

To aid the Committee in its work and provide more background on these technologies and the innovative breakthroughs that can reduce greenhouse gas emissions throughout agricultural supply chains, attached is BIO's *Biotech Solutions for Climate Report*,² which examines biotechnology's contributions to addressing the climate crisis and provides case studies on several BIO member companies including Gevo. This report highlights how biotechnology can achieve at least 3 billion tons of CO₂ equivalent mitigation annually by 2030, by delivering vital climate solutions in four key areas:

- Producing sustainable biomass feedstock
- Empowering sustainable production
- Developing lower carbon products
- Enhancing carbon sequestration

Supporting Innovation

Federal programs supporting the biobased economy, like the farm bill energy title, can foster research, development, demonstration-scale activities, and deployment of renewable, low-carbon energy technologies and send positive signals to the investment community. Private sector funding is critical to accelerate innovation, create a more resilient economy, and grow jobs for years to come.

Biobased Markets Program

The Biobased Markets Program, or the BioPreferred® Program, directs Federal agencies to increase their purchase and use of renewable chemicals and other biobased products. This program makes it easier for consumers to identify biobased products with the U.S. Department of Agriculture (USDA) Certified Biobased Product label. According to USDA's *An Economic Impact Analysis of the U.S. Biobased Products Industry*,³ the biobased products industry contributed \$393 billion and 4.2 million jobs to America's economy.

BIO recommends the next farm bill strengthen the BioPreferred® program with significant mandatory funding and enforceable procurement requirements. USDA and the Office of Management and Budget (OMB) should educate procurement officers on the benefits of BioPreferred® to ensure procurement targets are achieved.

Finally, 2018 Farm Bill called for USDA to work with the Department of Commerce to develop North American Industry Classification System (NAICS) codes for renewable chemical manufacturers and producers of biobased products. However, to date, OMB declined to do so. Without dedicated NAICS codes, Federal agencies can-

² https://www.bio.org/sites/default/files/2021-04/Climate%20Report_FINAL.pdf.

³ <https://www.biopreferred.gov/BPRresources/files/BiobasedProductsEconomicAnalysis2018.pdf>.†*

Editor's note: footnotes annotated with † are retained in Committee file.

not accurately classify, collect data, or report on the rapidly growing bioeconomy. BIO urges the Committee to work with USDA and OMB to update NAICS to establish a measurement for biobased products.

Biorefinery Assistance Program

USDA has been a critical partner in promoting and providing financial support for the development of sustainable biofuels and renewable chemicals.

The Biorefinery Assistance Program loan guarantee program provides manufacturers access to capital for large-scale projects in rural communities. Without the loan guarantee program, new innovative companies might never be able to pool sufficient capital to commence development of a project in rural communities with a small population. These biorefineries are proven drivers of job and economic growth for rural communities.

The 2018 Farm Bill expanded access to this program to renewable chemical and biobased product manufacturers. BIO urges the Committee to use its authority to build on report language in the 2018 Farm Bill to ensure that all biobutanol manufacturers can qualify for the biorefinery assistance program as an advanced biofuel, regardless of feedstock. The 2018 Farm Bill also only provided mandatory funding to the program through Fiscal Year 2020. To spur growth of additional biorefineries in rural communities, it will be critical for the next farm bill to provide mandatory funding for the full length of the farm bill.

Improved Modeling

As BIO noted in its statement for the record to the Committee's hearing "A 2022 Review of the Farm Bill: The Role of USDA Programs in Addressing Climate Change,"⁴ just like carbon markets, supporting the development of renewable energy will require infrastructure to measure and verify reductions in emissions and carbon sequestrations at the local farm level. This will ensure both government and industry can invest in and properly award innovative technologies that reduce emissions.

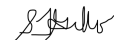
This will also require both modeling and regulatory requirements for greenhouse gas emissions analysis for sustainable fuels and renewable chemicals to reflect the newest science and technology. As BIO recently noted in comments⁵ in response to the U.S. Environmental Protection Agency's (EPA's) workshop on biofuel greenhouse gas modeling, relying on a single, stagnant version of a model jeopardizes the integrity of EPA processes and long-term decision making. Enabling the use of up-to-date modeling tools and data will permit the agency to capture improvements in agricultural efficiency and deployment of innovative technologies.

As such, BIO recommends the Committee and Congress urge EPA to work with U.S. Department of Energy (DOE) to incorporate the DOE's Argonne National Lab Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) model for measuring lifecycle emissions of transportation fuels. BIO also recommends EPA coordinate with USDA and utilize its practical knowledge and expertise on biofuels and innovative farming techniques.

Conclusion

BIO believes the government can and should play a catalytic role in growing a renewable, biobased economy. This will require Congress to incentivize the adoption of innovative, sustainable technologies and practices. BIO is committed to working with Congress in a forward-looking manner to foster pioneering technology breakthroughs and science. Doing so will bolster our economic and energy independence and set us on a path to better health and prosperity.

Sincerely,



SARAH GALLO,
Vice President, Agriculture and Environment,
Biotechnology Innovation Organization.

⁴<https://www.bio.org/letters-testimony-comments/bio-statement-house-agriculture-committee-2022-farm-bill-and-climate>.†

⁵<https://www.bio.org/letters-testimony-comments/bio-comments-epa-ghg-modeling>.†

Biotech Solutions for Climate Report**Executive Summary**

Examining biotechnology's contributions to addressing the climate crisis

“Climate change is one of the greatest public policy challenges facing this generation.”

New approaches are required at almost every level of the economy. Biotechnology has the potential to be a transformative asset in this struggle, offering vital contributions to near-term greenhouse gas (GHG) reductions and revolutionary tools to avert catastrophic climate change in the longer term. New biotech tools, including gene editing and synthetic biology, can be transformative climate solutions in key emerging industry sectors. Policies supporting the development and deployment of biotech climate solutions should be part of any government effort to address climate change.

Biotechnology can achieve at least 3 billion tons of CO₂ equivalent mitigation annually by 2030, using existing technologies, and emerging biotechnologies could have transformative GHG benefits in a range of industrial sectors. Biotechnology can deliver vital climate solutions in four key areas:

- Producing sustainable biomass feedstock
- Empowering sustainable production
- Developing lower carbon products
- Enhancing carbon sequestration

Producing Sustainable Biomass Feedstock

Substituting sustainably produced biomass feedstocks for fossil feedstocks is a critical component of de-carbonizing the U.S. economy because it leverages the capacity of photosynthesis to remove carbon from the atmosphere. Biomass substitution has provided vital near-term reductions in the carbon intensity of transportation fuels and a rapidly growing array of consumer products. In several key markets, such as aviation fuels, biobased alternatives offer the only viable path to GHG reductions. Biotechnology is being deployed to develop and utilize a range of next-generation sustainable biomass feedstocks to expand the availability and further reduce the carbon intensity of biofuels and biobased products. Future climate gains from biomass will depend critically on the carbon footprint of biomass feedstock production.

Biotech innovations in sustainable biomass production are also transforming the broader agriculture sector. Agriculture accounts for roughly 10% of total U.S. GHG emissions.¹ The vast majority of these emissions are nitrogen emissions from fertilizer and soils and methane emissions from livestock. Biotech is being deployed to tackle both issues.

Key Findings:

- Biofuels from agricultural or municipal waste and dedicated energy crops such as algae, switchgrass, hybrid poplar and *Miscanthus* have achieved GHG reductions of up to 80% *versus* petroleum with current technology.²
- Continued improvements in feedstock production, conversion efficiency, and co-products are expected to yield pathways with negative carbon scores.³
- Biotechnology is being deployed to radically reduce agricultural nitrogen emissions: first, by introducing nitrogen-fixing microorganisms, known as agricultural (ag) biologicals, to the soil; and second, by using plant biotechnology to engineer plants to better utilize soil nitrogen. Biotech solutions could reduce nitrous oxide emissions from agriculture by more than 150 million metric tons of carbon equivalent.
- Ag biologicals and plant biotechnology are being similarly leveraged to enhance soil carbon sequestration through introduction of carbon-fixing soil microbes and larger plant root systems. Ag biologicals and plant biotechnology could enhance

¹ <http://cfpub.epa.gov/ghgdata/inventoryexplorer/>.

² <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/lifecycle-greenhouse-gas-results>.

³ Kim S., Zhang X., Reddy A.D., Dale B.E., Thelen K.D., Jones C.D., Izaurre R.C., Runge T., Maravelias C. *Carbon-Negative Biofuel Production*. ENVIRON. SCI. TECHNOL. 2020 Sep. 1; 54(17): 10797–10807. doi: 10.1021/acs.est.0c01097. Epub 2020 Aug. 19. PMID: 32786588. <http://pubmed.ncbi.nlm.nih.gov/32786588/>.

soil carbon sequestration by up to 600 million metric tons per year if widely deployed.

- Biotechnology is reducing methane emissions from livestock through new animal feeds and feed ingredients, more efficient animals, and solutions for processing and reusing animal waste.
- Plant biotechnology will be critical to continued agriculture sustainability gains, including improvements in crop yields, photosynthetic efficiency, and climate resiliency.
- Together, biotech solutions have the potential to reduce agriculture sector GHG emissions by nearly 1 billion metric tons (1 gigaton) annually—or the equivalent of GHG emissions from more than 100 million U.S. homes.

Empowering Sustainable Production

Manufacturing of everyday products, like apparel, plastics, packaging, carpet and cosmetics, is a major greenhouse gas emitter, responsible for 22% of total GHG emissions.⁴ Biotechnology can dramatically reduce these emissions by making their building blocks from renewable feedstocks rather than fossil fuels; in many cases, biology allows drop-in replacements of existing building blocks, enabling faster adoption throughout our economy with homegrown solutions. New biotech tools, including gene editing and synthetic biology, offer the potential for transformative climate solutions in key emerging industry sectors. Biotech offers a sustainable model for manufacturing in the 21st century.

Key Findings:

- Biomufacturing—the use of enzymes and microorganisms in manufacturing—can reduce GHG emissions 80% or more relative to traditional chemical routes for a variety of chemicals and consumer products.⁵
- CRISPR and other gene editing tools have dramatically increased the speed and reduced the cost of genetic engineering and are being deployed to tackle a range of global challenges, including climate change.
- Biology-based parallel computing and DNA data storage have the potential to cut the energy and carbon footprints of computing and data storage—sectors expected to account for 14% or more of global GHG emissions by 2040⁶—by 99% or more *versus* current technology.⁷
- Biological sensors, coatings and ingredients can substantially reduce food and feed waste, which is responsible for roughly seven percent of total global GHG emissions.⁸

Developing Lower-Carbon Products

As awareness of the climate crisis expands, consumers are increasingly demanding lower-carbon options and more sustainable replacements for existing products. This means finding low-emission alternatives that provide the same level of performance, durability and cost-effectiveness as mature fossil-based systems. Biotechnology allows for the production of low-carbon consumer products through the substitution of biomass or other recycled carbon feedstocks and by enabling more efficient, biologically-based production, satisfying an increasingly important market segment while reducing emissions.

Key Findings:

- First-generation biofuels have reduced U.S. transportation sector GHG emissions by 980 million tons over the past thirteen years,⁹ equivalent to taking roughly 16 million vehicles off the road, or 19 coal-fired power plants offline, for that period.¹⁰ Biotech innovations in feedstocks, processing, co-products, and carbon recycling continue to lower their carbon intensity.

⁴<https://cfpub.epa.gov/ghgdata/inventoryexplorer/>.

⁵Erickson, B. “New Biotech Tools for a Cleaner Environment.” Washington, D.C.: Biotechnology Industry Organization, 2005. <http://www.bio.org/sites/default/files/legacy/bioorg/docs/files/CleanerExecSumm.pdf>.

⁶<http://www.sciencedirect.com/science/article/abs/pii/S095965261733233X?via%3Dihub>.

⁷<http://www.pnas.org/content/113/10/2591.abstract>.

⁸*Food Waste Footprint: Impacts on natural resources. Summary Report.* France: Food and Agriculture Organization of the United Nations, 2013. <http://www.fao.org/3/i3347e/i3347e.pdf>.

⁹Unnasch, S. and D. Parida (2021) *GHG Reductions from the RFS2—A 2020 Update*. Life Cycle Associates Report LCA. LCA.6145.213.2021 Prepared for Renewable Fuels Association. http://ethanolrfa.org/wp-content/uploads/2021/02/LCA_-_RFS-2-GHG-Update_2020.pdf.

¹⁰U.S. Environmental Protection Agency. *Greenhouse Gas Equivalencies Calculator*. <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>. Accessed April 3, 2021.

- With lifecycle GHG reductions of 80% or more *versus* petroleum, next-generation feedstocks will more than double the transportation GHG emissions reductions achieved by first-generation biofuels and are poised to deliver carbon-negative transportation solutions.
- Biobased products produced from biomass or biologically recycled waste gases added \$459 billion to the U.S. economy in 2016¹¹ and are built from carbon that would otherwise reside in the atmosphere, creating a pivotal pathway for atmospheric carbon removal.
- Biobased plastics and polymers, such as PLA, PHA, and BDO have achieved lifecycle GHG reductions of up to 80% *versus* their petroleum-based counterparts.¹² A rapidly growing list of new biobased chemical building blocks is now in development.
- Biotechnology is lowering the carbon footprint of animal products and making possible a growing array of sustainable, low-carbon options for meat and animal products through:
 - Plant-based and cultured meats with up to 89% lower lifecycle GHG emission.¹³
 - Algae and microbial feed ingredients that reduce enteric methane emissions from ruminant animals by 68% or more,^{14–15} avoiding the equivalent of up to 140 million metric tons of carbon annually.
 - Other biotech ingredient options for fish feed that reduce its carbon footprint by up to 30%.¹⁶
 - Anaerobic digestion of animal waste, with the potential to reduce U.S. GHG emissions by 151 MTCO₂ eq. annually by 2050 using current technology.¹⁷

Enhancing Carbon Sequestration

A broad scientific consensus exists that reducing carbon emission alone will be insufficient to avert catastrophic climate change. Almost every model of a successful stabilization of global temperatures includes a substantial component of carbon dioxide removal from the atmosphere as well.¹⁸ Biotechnology has multiple critical roles in achieving the needed carbon removal.

Key Findings:

- Biological carbon capture is the most feasible near-term pathway to meaningful atmospheric carbon removal. Development of thermochemical systems for point-source and direct-air capture remains an important technology pursuit, but photosynthesis and other biological pathways remain the only established mechanisms for carbon capture on a scale sufficient for carbon removal.

¹¹ Daystar, J., Handfield, R.B., Golden, J.S., and, T.E. McConnell (2018). *An Economic Impact Analysis of the U.S. Biobased Products Industry: 2018 Update*. Volume IV. A Joint Publication of the Supply Chain Resource Cooperative at North Carolina State University and the College of Engineering and Technology at East Carolina University. 2018. <http://www.biopreferred.gov/BPRResources/files/BiobasedProductsEconomicAnalysis2018.pdf>.

¹² Yu, J. and Chen, L. *The Greenhouse Gas Emissions and Fossil Energy Requirements of Bioplastics from Cradle to Gate of a Biomass Refinery*. ENVIRON. SCI. TECHNOL. 2008, 42, 18, 6961–6966. <http://pubs.acs.org/doi/abs/10.1021/es7032235>.

¹³ Khan, S. *Comparative environmental LCA of the Impossible Burger® with conventional ground beef burger*, Quantis International, Feb. 27, 2019. <http://impossiblefoods.com/mission/lca-update-2019/>.

¹⁴ Roque, B.M., et al. *Red seaweed (*Asparagopsis taxiformis*) supplementation reduces enteric methane by over 80 percent in beef steers*. *BioRxiv* 2020.07.15.204958; doi: <https://doi.org/10.1101/2020.07.15.204958>. <https://www.biorxiv.org/content/10.1101/2020.07.15.204958v1.abstract>. Roque B.M., Venegas M., Kinley R.D., de Nys R., Duarte T.L., Yang X., et al. (2021) *Red seaweed (*Asparagopsis taxiformis*) supplementation reduces enteric methane by over 80 percent in beef steers*. *PLoS ONE* 16(3): e0247820. <https://doi.org/10.1371/journal.pone.0247820>. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0247820>.

¹⁵ Press Release: *Leading California University Finds 78 Percent Reduction in Livestock Methane Emissions with Direct-fed Microbials from Locust Fermentation Solutions*. March 26, 2020. <http://locustfs.com/leading-california-university-finds-78-percent-reduction-in-livestock-methane-emissions-with-direct-fed-microbials-from-locust-fermentation-solutions/>.

¹⁶ Cumberledge, T. *Assessment of environmental impact of Feedkind™ protein*. Carbon Trust, April 2016. <http://www.carbontrust.com/resources/assessment-of-environmental-footprint-of-feedkind-protein>.

¹⁷ Zaks, David P.M., et al. "Contribution of anaerobic digesters to emissions mitigation and electricity generation under U.S. climate policy." *Environmental Science & Technology* vol. 45,16 (2011): 6735–42. doi:10.1021/es104227y. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3155279/>.

¹⁸ http://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter2_Low_Res.pdf.

- Bioenergy with Carbon Capture and Sequestration (BECCS) could cost-effectively remove over 700 million metric tons of carbon per year by 2040, or more than half the emissions from all U.S. coal power plants.¹⁹
- Algae and other microbial carbon capture systems applied to biomass energy or other biorefinery systems offer one of the most carbon-negative climate solutions available.
- Suitable land and other infrastructure exists to deploy algae-based carbon capture systems at more than 500 power plants and ethanol facilities in the U.S. These systems would have a potential to capture more than 200 million tons of CO₂ annually.²⁰

Conclusion

Biotechnology is a crucial enabling technology to combat climate change. It offers gigaton solutions from existing technologies and potentially transformative solutions in multiple sectors of the economy. Current and future biotechnology innovations will be needed to achieve a zero-carbon economy and play a key role in carbon capture and sequestration to take us beyond zero. Policies supporting the development and deployment of biotech climate solutions should be part of any government effort to address climate change.

ATTACHMENT 2



Biotech Solutions for Climate Report

Examining biotechnology's contributions to addressing the climate crisis

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²⁰ Algae Biomass Organization. *DOE 2016 Billion-Ton Report: Ample Resources for Algae Production in the U.S.* July 13, 2016 <http://algaebiomass.org/blog/9541/doe-2016-billion-ton-report-ample-resources-for-algae-production-in-the-u-s/>.

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Introduction

“Climate change is one of the greatest public policy challenges facing this generation.”

The rapid accumulation of anthropogenic carbon dioxide in the atmosphere is already altering natural climate¹ and biological systems, resulting in abnormally destructive wildfires, storms, rainfall patterns and the spread of infectious disease. It is increasingly clear that the historical, fossil fuel-based models of carbon, energy and material cycling through the economy are incompatible with maintaining a hospitable environment. Humanity will need to bring every tool it has to bear on this critical challenge. New approaches are required at almost every level of the economy. Biotechnology has the potential to be a transformative asset in this struggle.

Biotechnology is technology based on biology. Biotechnology applications touch most aspects of modern life, from agriculture to manufacturing to medicine. In the context of climate change, biotechnology offers solutions in four key categories:

- Producing sustainable biomass feedstock
- Empowering sustainable production
- Developing lower carbon products
- Enhancing carbon sequestration

Biotechnology offers vital contributions to near-term greenhouse gas (GHG) reductions and revolutionary tools to combat climate change in the longer term. Policies supporting the development and deployment of biotech climate solutions should be part of any government effort to address climate change. This report reviews the current contributions of biotechnology to greenhouse gas (GHG) reductions and identifies the emerging biotech solutions with the greatest potential to avert, and reverse, catastrophic climate change. We focus on four main areas:

Producing Sustainable Biomass Feedstock. For most of human existence, our lives were based on the products of renewable biomass—plants and other living ma-

¹<http://www.ipcc.ch/site/assets/uploads/2018/02/TAR-03.pdf>.

terial. In the past 150 years, much of our economy has come to depend on petroleum and other non-renewable resources. The environmental consequences of this transition from renewable resources to non-renewable resources are well documented.² Biotechnology has developed more sustainable, biobased alternatives for many products, including fuels, polymers, and other chemicals. The U.S. consumed over 7.5 billion barrels of petroleum in 2019,³ some of which was turned into plastic; as much as 35 million tons of plastic ended up in waste streams annually in recent years.³⁻⁴ More sustainable options have been developed over recent decades, but ultimately they still require a material input. Biobased alternatives offer the potential for significantly reduced carbon footprints and environmental benefits compared to the traditional systems they displace, and these alternatives depend on broad availability of sustainable biomass feedstock. At present, there are concerns that not enough biomass will be sustainably available to meet growing demand. Biotechnology is rapidly reducing the carbon footprint of feedstock production by enabling new, sustainable ways to produce usable biomass, improving yields on existing crops, developing scalable, low-input production systems, and finding new ways to utilize biomass that would otherwise be waste.

Empowering Sustainable Production. Manufacturing is a major greenhouse gas emitter, from industrial boilers, chemical production, and the release of high-warming-potential gases like methane or fluorinated hydrocarbons. Biotech empowers a variety of options to reduce emissions from these processes, by reducing the need for energy inputs, facilitating more efficient material processing, or replacing high-warming-potential gases. Biotechnology has also enabled renewable natural gas systems that can displace the fossil-based methane today, simply by switching the source of the gas. The U.S. manufacturing sector is responsible for 22% of total GHG emissions,⁵ and while no single technology or solution can single-handedly solve the problem, biotech enables opportunities for lower-emission production across many sectors.

Developing Lower-Carbon Products. As awareness of the climate crisis expands, consumers are increasingly demanding lower-carbon options and more sustainable replacements for existing products.⁶ This means finding low-emission alternatives that provide the same level of performance, durability and cost-effectiveness as mature fossil-based systems. Biotechnology allows for the production of low-carbon consumer products through the substitution of biomass or other recycled carbon feedstocks and by enabling more efficient, biologically based production, satisfying an increasingly important market segment while reducing emissions at the same time.

Enhancing Carbon Sequestration. While there is a lot of uncertainty about what a sustainable future may look like, several features are common across all likely scenarios. One of these is the deployment of massive amounts of carbon capture and sequestration (CCS), which converts carbon to a form that does not contribute to climate change or stores it underground. CCS cannot be the sole or even the primary solution to climate change, but it will make a critical contribution. Biotechnology has a key role in advancing CCS techniques, making it more scalable, reliable and cost-effective.

2 Technologies

In this section, we review biotechnology applications to climate mitigation in four broad categories: products; agricultural inputs and climate services; new biotech tools and bio-industrial manufacturing; and plant and animal biotechnologies.

2.1 Products

2.1.1 Advanced Biofuels

Liquid biofuels were one of the earliest biotechnology products to be deployed at scale in the U.S. for the purpose of achieving greenhouse gas (GHG) emission reductions. In the early 21st century, production mostly took the form of the first-generation biofuels ethanol and biodiesel, derived from feedstocks such as corn and vegetable oils. Concerns about competition for these feedstocks with the food and animal feed sectors prompted the development of second-generation liquid biofuels that are produced from low-carbon-intensity (CI) feedstocks, such as lignocellulosic biomass.

² <http://www.pnas.org/content/116/15/7192>.

³ <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTTUPUS1&f=A>.

⁴ <https://www.statista.com/statistics/1097290/us-plastic-waste-generation/>.

⁵ <http://cfpub.epa.gov/ghgdata/inventoryexplorer/>.

⁶ <http://www.carbontrust.com/news-and-events/news/research-reveals-consumer-demand-for-climate-change-labelling>.

Existing first-generation biofuels pathways rely heavily on the fermentation of starch-rich feedstocks to ethanol and, to a lesser but still substantial extent, the transesterification or hydrotreating of vegetable oils to biodiesel or renewable diesel, respectively. Fermentation is one of the oldest examples of biotechnology, having been mastered by humans thousands of years ago for the purpose of producing alcoholic beverages. Glucose is easily fermented by the microorganism *Saccharomyces cerevisiae* to yield a diluted form of ethanol known in the industry as “beer”. Distillation of this intermediate produces a high-proof ethanol that is then blended with gasoline for use in motor vehicles. Most gasoline in the U.S. today contains 10% ethanol, with 15% blends increasingly available.⁷

Advances in biotechnology have enabled U.S. ethanol producers to achieve substantial efficiency improvements in recent decades that have enabled the volume of first-generation ethanol obtained from a bushel of corn to increase by more than 10% between 1982 and 2014.⁸ Milling improvements based on improved knowledge of corn kernel composition increased conversion efficiency, reducing the amount of corn required.⁹ Likewise, a better understanding of yeast biology led to ethanol yield optimization via temperature-controlled fermentation.¹⁰ And advanced fractionation techniques have allowed for greater yield of co-products, such as distillers dry grains (DDGS), a key animal feed ingredient. Together these advances have improved the process economics and sustainability of the pathway by reducing costs and waste. The EPA estimates them to have resulted in reductions to ethanol’s carbon intensity in excess of 10%.¹¹ A shift to more sustainable growing practices, driven by a desire to capture the compliance value of low-carbon programs such as the California Low Carbon Fuel Standard (LCFS), is further reducing the carbon intensity of first-generation fuels. And the prospect of deploying carbon capture technology at ethanol plants, detailed in section 2.2.2, could reduce the carbon footprint of first-generation ethanol by an additional 40%.¹²

Biotechnology has also made a wide range of low-carbon intensity feedstocks available for utilization by biofuel producers. Glucose is a fundamental building block of plants, and plants possess multiple defense mechanisms to protect themselves from yeast and other microorganisms that consume glucose. Plants’ glucose content takes the form of the polysaccharide cellulose that is not digestible by most living things (one notable exception being termites). Other simple sugars such as arabinose and xylose comprise a second type of major polysaccharide that plants contain, hemicellulose. Plants are further protected by a third compound with antimicrobial properties, lignin, that is cross-linked with cellulose and hemicellulose to protect them against attack by microorganisms. These traits allow plants to thrive in the wild but have also posed a major hurdle to their use as a second-generation biofuel feedstock by inhibiting their conversion to ethanol via fermentation.

Recent progress in the development of biocatalysts and engineered microorganisms has made possible the production of ethanol from second-generation feedstocks such as grasses, shrubs, and other dedicated energy crops. The enzymatic hydrolysis pathway employs biocatalysts to break cellulose and hemicellulose down to glucose and other constituent sugars. The glucose is converted to fuel ethanol in the same manner as corn glucose. Microorganisms that are naturally able to ferment glucose have been engineered to make them capable of also fermenting simple sugars derived from hemicellulose to ethanol, improving both yields and efficiencies of lignocellulosic biofuel production.

An early commercial application of this pathway utilizes the lignocellulose that is found in small quantities in corn kernels to produce ethanol. Biotech companies POET, Syngenta, and Enogen, among others, have begun adding corn kernel fiber conversion units to first-generation ethanol plants, potentially increasing ethanol yield per bushel of corn by nearly 10%.¹³

The full potential of cellulosic biofuel to mitigate climate change will depend on broad deployment of cellulosic technology to agricultural residues, municipal solid waste (MSW), and dedicated energy crops. An initial wave of cellulosic ethanol biorefinery construction occurred following the 2009 implementation of the Federal Renewable Fuel Standard (RFS) program. Leading first-generation ethanol producers such as POET, LLC, have partnered with leading biotech innovators to build first-

⁷ <https://www.eia.gov/todayinenergy/detail.php?id=40095>.

⁸ <https://www.eia.gov/todayinenergy/detail.php?id=21212>.

⁹ <https://agresearchmag.ars.usda.gov/ar/archive/2004/jul/corn0704.pdf>.

¹⁰ <http://www.sciencedirect.com/topics/engineering/fermentation-temperature>.

¹¹ <http://www.tandfonline.com/doi/full/10.1080/17597269.2018.1546488>.

¹² <http://www.pnas.org/content/pnas/early/2018/04/18/1719695115.full.pdf>.

¹³ <http://illinoisrfa.org/wp-content/uploads/2019/02/Short-Version-CKF-EthanolTechnologies-final-1.pdf>.

of-a-kind cellulosic biofuel plants in the U.S., Europe, and South America, but low oil prices, policy obstacles, and technology challenges have limited global production volumes.

Advances in biotechnology have expanded the supply of feedstocks available to biodiesel and renewable diesel, two of the major success stories in sustainable transportation. Biodiesel (BD) is produced via the transesterification process in which lipid feedstocks are reacted with methanol to yield a fatty acid methyl ester (FAME) that can be blended into conventional diesel, without needing any modification to the engine. Renewable diesel (RD) is made by hydrotreating the same kind of lipid feedstocks, in a process very similar to parts of conventional oil refining; it has performance characteristics like those of diesel fuel, passes the same product specifications and can be used in any diesel engine at any concentration. Historically most U.S. BD and RD have been produced from soybean oil.¹⁴ The need for new feedstocks has grown over the last decade, however, as production has expanded and policies such as California's Low Carbon Fuel Standard (LCFS) have incentivized the use of second-generation low-carbon intensity feedstocks. Some of these newer feedstocks are waste products that are not as easily converted to biodiesel as first-generation feedstocks. Biocatalysts have been developed that improve the conversion efficiencies and performance characteristics of biodiesel that is yielded from waste feedstocks,¹⁵ allowing for more of them to be converted to low-carbon transportation fuel.

Biotechnology has also enabled the production of novel low-carbon fuels that complement existing ethanol and biodiesel production. First-generation biofuels have a limited ability to widely displace existing fossil fuels due to infrastructure compatibility hurdles. The U.S. only allows ethanol blends of up to 15% by volume with gasoline in non-flex fuel vehicles¹⁶ and most diesel engine warranties only cover biodiesel blends of up to 20% by volume.¹⁷ Moreover, neither is capable of displacing specialized fossil fuels such as aviation fuel. Technological advances have yielded a new category of "drop-in biofuels"—so named for their ability to utilize the existing refined fuels infrastructure—that have an even greater de-carbonization potential.

Biobutanol (butanol derived from biomass) was one of the first biofuels to gain attention for its drop-in properties, as it chemically behaves more like a hydrocarbon than ethanol does. While actually an intermediate to renewable hydrocarbons (see below), biobutanol's high energy equivalence ratio compared to ethanol and ability to be blended with gasoline at rates of up to 16% by volume allow it to displace correspondingly larger volumes of gasoline.¹⁸ Biobutanol is produced via fermentation from the same simple sugars as in ethanol production. Some biofuel producers have genetically modified ethanol yeast to instead produce isobutanol. There are also pathways that utilize bacteria for the conversion rather than yeast. Biobutanol can also be produced via engineered microorganisms from the carbohydrates in some microalgae strains that remain after lipids have been extracted, allowing for microalgae to serve as a simultaneous feedstock for both biobutanol and biomass-based diesel.¹⁹

More recently, biobutanol has attracted interest as a key step towards production of the renewable hydrocarbon fuels isooctane and sustainable aviation fuel (SAF). Unlike biobutanol, which is an alcohol, biobased isooctane and SAF are hydrocarbons with performance characteristics that are very similar to their fossil counterparts (isooctane is an important blending component in gasoline). They are true drop-in biofuels in that they can be used in the same quantities as the fossil fuels that they displace before encountering infrastructure constraints.

Biotechnology has also enabled the production of SAF directly from biomass via fermentation. Historically the conversion of biomass to hydrocarbons via fermentation has been limited by the presence of oxygen in biomass that has caused microorganisms to favor oxygen-containing products (*e.g.*, ethanol, butanol). Metabolic engineering has been employed to improve the yield of the specific hydrocarbon, ker-

¹⁴Unnasch, S. and D. Parida (2021) *GHG Reductions from the RFS2—A 2020 Update*. Life Cycle Associates Report LCA. LCA.6145.213.2021 Prepared for Renewable Fuels Association. <https://ethanolrfa.org/wp-content/uploads/2021/02/LCA-RFS2-GHG-Update-2020.pdf>.

¹⁵<http://www.biodieselmagazine.com/articles/9481/commercializing-enzymatic-biodiesel-production>.

¹⁶<http://www.epa.gov/renewable-fuel-standard-program/final-rulemaking-modifications-fuel-regulations-provide-flexibility>.

¹⁷<http://www.biodiesel.org/using-biodiesel/oem-information>.

¹⁸http://afdc.energy.gov/fuels/emerging_biobutanol.html.

¹⁹Sabarathinam S. *et al.*, *Recent developments and strategies in genome engineering and integrated fermentation approaches for biobutanol production from microalgae*. *FUEL*, 285, 2021, 119052, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2020.119052>. <https://www.sciencedirect.com/science/article/pii/S0016236120320482>.

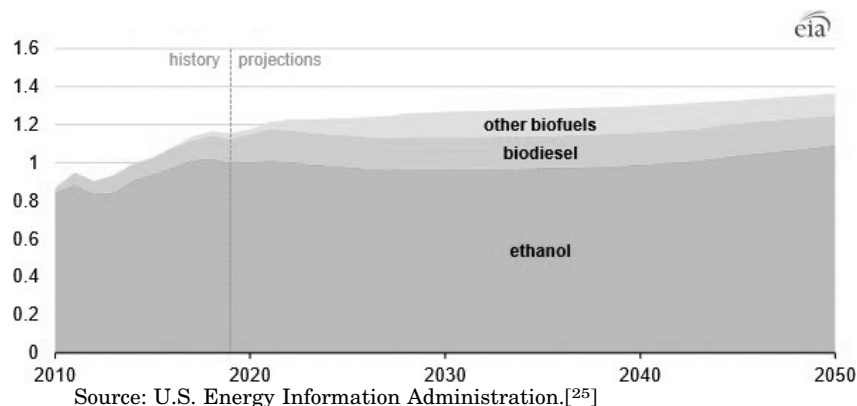
osene, that comprises a common form of aviation fuel by increasing the selectivity of fermenting microorganisms.²⁰ The microorganisms are able to convert sugars derived from a variety of feedstock types to SAF.²¹ Hydrocarbons have hydrophilic properties, allowing those produced in this manner to avoid the need for the energy-intensive distillation step that is required when producing fuel alcohols.

Biofuels currently supply approximately 12% of U.S. on-road transportation fuel.²² Ethanol and biodiesel currently comprise the large majority of U.S. biofuels consumption. Production of second-generation biofuels is expected to increase rapidly during the early 2020s, however, as the new feedstocks and pathways made possible by biotechnology breakthroughs are commercialized (see *Figure 1*).²³ A combination of factors is responsible for this development. First, the COVID-19 pandemic has seriously disrupted demand for fossil fuels in the U.S. transportation sector, in turn limiting demand for biofuels such as ethanol that have restrictive blend limits. Second, policies such as the Federal revised Renewable Fuel Standard (RFS2), the California Low Carbon Fuel Standard (LCFS) and the Oregon Clean Fuels Program incentivize second-generation biofuels, with their lower carbon intensities, over first-generation biofuels (and both over fossil fuels). Third, whereas the last decade's rapid growth in first-generation biofuels production has slowed due to supply constraints, second-generation feedstocks remain underutilized.²⁴

Figure 1: Estimated U.S. biofuel production volumes by type of fuel, 2010–2050.

U.S. Production of Selected Biofuels in AEO2020 Reference Case (2010–2050)

(million barrels per day (MMb/d))



The carbon intensities of biofuels vary widely depending on feedstock(s), conversion processes, and the geographic length of the supply chain. California publishes detailed carbon intensities of the biofuels that participate in its LCFS for both broad biofuel categories as well as individual producers. Ethanol, which has historically been the primary source of biofuels under the LCFS by volume, has achieved average GHG emission reductions compared to gasoline of between 32% and 41% in recent years.²⁶ Ethanol from waste, or dedicated energy crop feedstocks, have achieved GHG reductions of up to 80% with current technology.²⁷ Continued improvements in feedstock production, conversion efficiency, and co-products are expected to yield pathways with negative carbon scores.²⁸

²⁰ Straathof A.J.J., Cuellar M.C. *Microbial Hydrocarbon Formation from Biomass*. *ADV. BIOCHEM. ENG. BIOTECHNOL.* 2019; 166: 411–425. doi: 10.1007/10_2016_62. PMID: 28707104. <http://pubmed.ncbi.nlm.nih.gov/28707104/>.

²¹ http://www.etipbioenergy.eu/images/ETIP_Bioenergy_Factsheet_Aviation_Biofuels.pdf.

²² <http://www.govinfo.gov/content/pkg/FR-2020-02-06/pdf/2020-00431.pdf>.

²³ <http://www.eia.gov/todayinenergy/detail.php?id=43096>.

²⁴ <http://www.energy.gov/eere/bioenergy/2016-billion-ton-report>.

²⁵ <http://www.eia.gov/todayinenergy/detail.php?id=43096>.

²⁶ <http://ww3.arb.ca.gov/fuels/lcfs/lrtqsummaries.htm>.

²⁷ <http://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>.

²⁸ Kim S., Zhang X., Reddy A.D., Dale B.E., Thelen K.D., Jones C.D., Izaurre R.C., Runge T., Maravelias C. *Carbon-Negative Biofuel Production*. *ENVIRON. SCI. TECHNOL.* 2020 Sep. 1;

Continued

Similarly, biodiesel has achieved average GHG emission reductions compared to diesel fuel of between 69% and 74% over the same period, although individual reduction values range from as low as 50% to over 90% depending on the feedstock used.²⁹ In both cases, California reports the lowest carbon intensities for those biofuels that are produced from waste feedstocks, illustrating the value that biotechnology has provided by helping to make such feedstocks usable by biofuels producers.

Biobutanol from lignocellulosic biomass has yet to achieve commercial-scale production volumes and does not have published LCFS carbon intensity values as a result. Independent life cycle assessments estimate a GHG emission reduction for the biofuel compared to gasoline of approximately 66%, which is comparable to ethanol from lignocellulosic biomass.³⁰ Likewise, SAF from biobutanol is estimated to achieve GHG emission reductions compared to petroleum aviation fuel of between 60% and 75% depending on the choice of feedstock and conversion inputs.³¹

GHG emissions are not the only form of air pollution that the use of biofuels reduces. Emissions of criteria pollutants such as carbon monoxide, particulate matter, and sulfur dioxide have a direct impact on human health, causing air pollution to be one of the main risk factors causing non-communicable diseases globally.³² The combustion of commonly used biofuels in both blended and unblended forms has been found to reduce many, if not all, of the criteria pollutants that are emitted by the combustion of petroleum fuels.^{33–34}



Gevo Case Study

54(17): 10797–10807. doi: 10.1021/acs.est.0c01097. Epub 2020 Aug. 19. PMID: 32786588. <http://pubmed.ncbi.nlm.nih.gov/32786588/>.

²⁹ <http://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>.

³⁰ Tao, L., Tan, E.C.D., McCormick, R., Zhang, M., Aden, A., He, X. and Zigler, B.T. (2014), *Techno-economic analysis and life-cycle assessment of cellulosic isobutanol and comparison with cellulosic ethanol and n-butanol*. *BIOFUELS, BIOPROD. BIOPROD.* 8: 30–48. <http://doi.org/10.1002/bbb.1431> <https://onlinelibrary.wiley.com/doi/full/10.1002/bbb.1431>.

³¹ de Jong, S., Antonissen, K., Hoefnagels, R., et al. *Life-cycle analysis of greenhouse gas emissions from renewable jet fuel production*. *BIOTECHNOL BIOFUELS* 10, 64 (2017). <https://doi.org/10.1186/s13068-017-0739-7>. <http://link.springer.com/article/10.1186/s13068-017-0739-7>.

³² Pruss-Ustun A., van Deventer E., Mudu P., Campbell-Lendrum D., Vickers C., Ivanov I., et al. *Environmental risks and non-communicable diseases*. *BMJ* 2019; 364: 1265 doi: 10.1136/bmj.1265. <http://www.bmj.com/content/364/bmj.1265>.

³³ Sakai, S. and Rothamer, D. *Impact of ethanol blending on particulate emissions from a spark-ignition direct-injection engine*. *FUEL*, 236, 2019, 1548–1558, ISSN 0016–2361, <https://doi.org/10.1016/j.fuel.2018.09.037>. <http://www.sciencedirect.com/science/article/pii/S0016236118315746>.

³⁴ Miller, C.A. *Characterizing Emissions from the Combustion of Biofuels*. U.S. Environmental Protection Agency, Washington, D.C., EPA/600/R-08/069, 2008. http://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRML&dirEntryId=191572.

Gevo is an advanced renewable fuel producer that converts renewable energy to energy-dense liquid hydrocarbons by transforming renewable energy into low-carbon transportation fuels. This next generation of renewable premium gasoline, jet fuel and diesel fuel has the potential to achieve net-zero carbon emissions, addressing the market need of reducing GHG emissions with sustainable alternatives while continuing to utilize current infrastructure and vehicles.

The company originally converted an existing dry-mill corn ethanol facility to a commercial-sized scaled up facility in Luverne, Minnesota. The converted facility utilizes corn starch as feedstock. While corn-based biofuels have not historically been credited with large reductions to carbon intensity relative to gasoline, Gevo employs an integrated approach to carbon intensity reductions that maximizes the environmental and sustainability potentials from agricultural systems, while creating innovative solutions to convert the feedstocks into energy-dense hydrocarbons.

In January 2021, Gevo announced a new project, planned for construction at Lake Preston, South Dakota, to be named “Net-Zero 1.” Gevo expects that Net-Zero 1 would have the capability to produce liquid hydrocarbons that when burned have a net-zero greenhouse gas footprint.³⁵ Net-Zero 1 is expected to have a capacity of 45 million gallons per year of hydrocarbons for gasoline and jet fuel and will produce more than 350 million pounds per year of high-protein feed products for use in the food chain. In addition to feed and fuel, the facility will produce enough renewable natural gas to be self-sufficient for production process needs. The facility will also generate renewable electricity with a combined heat and power system and integrate additional renewable power production utilizing wind energy.

Gevo’s integrated approach utilizes de-carbonization practices across the entire supply chain. It begins by working with the farmers who employ best farming practices that maximize soil carbon sequestration and minimize GHG emissions during the planting, growing, and harvesting stages.³⁶ The partnership with farmers involves the active tracking and monitoring of the feedstock suppliers to ensure that best practices are encouraged and in the future can be incentivized for the purpose of consistently minimizing feedstock carbon intensity.

Gevo also conducts experimental trials to identify additional feedstock de-carbonization routes such as the use of manure in place of nitrogen fertilizer application, enhanced soil carbon sequestration via reduced soil tillage practices, and improved crop yields via microbial soil solutions. The company estimates that its corn feedstock has a carbon intensity that is at least 50% lower than the U.S. average.³⁷

Because of the low-carbon-footprint feedstocks, the sustainable agricultural practices used to produce feedstock, and the use of renewable energy for the production processes—much of which is expected to be generated on site—the hydrocarbon fuel products produced at Net-Zero 1 have the potential to achieve net-zero greenhouse gas emissions, as measured across the whole of the life cycle, based on Argonne National Laboratory’s GREET model. The GREET model takes into account emissions and impacts “cradle to cradle” for renewable resource based fuels, including inputs and generation of raw materials, agriculture practices, chemicals used in production processes of both feedstocks and products, energy sources used in production and transportation, and end fate of products.

Gevo’s Luverne facility also makes extensive use of other sources of renewable energy to reduce the carbon intensity of its production process. The production of biofuels such as isobutanol from corn uses process heat and electricity that have historically been obtained from fossil fuels, such as coal and natural gas. And Gevo has installed wind turbines to generate renewable electricity. Minnesota has abundant access to low-cost wind power and Gevo pays “about the same” price for electricity as it did prior to the installation of the wind capacity.³⁸ In 2019, Gevo announced its intention to utilize renewable natural gas that is produced from dairy manure in place of the fossil natural gas it used to produce process heat in the past.³⁹ In both cases, Gevo has been able to take

³⁵ <http://investors.gevo.com/news/net-zero-1-project>.

³⁶ <http://www.iscc-system.org/wp-content/uploads/2017/02/Sustainable-Aviation-Fuel.pdf>.

³⁷ <http://www.iscc-system.org/wp-content/uploads/2017/02/Sustainable-Aviation-Fuel.pdf>.

³⁸ <http://gevo.com/about-gevo/our-plants/wind-project/>.

³⁹ <http://biomassmagazine.com/articles/16395/gevo-discusses-plans-for-hydrocarbon-rng-production>

advantage of local renewable energy resources that are supplied directly to the Luverne facility via transmission line and natural gas pipeline.

2.1.2 Renewable Chemicals and Biobased Products/Materials

Fossil-derived chemicals and products are a key future driver of petroleum consumption.⁴⁰ The chemicals sector (known as petrochemicals when derived from fossil feedstocks) accounts for a wide variety of common products, including plastics, synthetic rubber, solvents, fertilizers, pharmaceuticals, additives, explosives, and adhesives.⁴¹ They differ from fossil fuels in that their consumption does not normally cause GHG emissions via combustion. They are still produced from fossil fuels, though, especially petroleum and natural gas, and their production incurs both direct and indirect emissions. By one estimate the petrochemicals sector generates 18% of direct industrial GHG emissions, and its production capacity is growing rapidly.⁴² The sector is also, due to its reliance on fossil fuels, an important source of other forms of pollution that have a detrimental impact on human health, especially in disadvantaged communities.⁴³ Moreover, many fossil-derived products such as plastics are resistant to degradation and end their useful lives either in landfills or in natural environments as litter.

Biotechnology's contributions to efforts to mitigate the damage caused by fossil chemicals and products generally fall into one of two broad categories: (1) the replacement of these fossil-derived products by non-fossil products, and (2) the replacement of degradation-resistant materials with biodegradable materials. A substantial amount of overlap exists between the two categories due to the novel production pathways and product types that have been developed by the biotechnology industry. The ability of biomass to replace a wide variety of fossil products has greatly benefited from recent biotechnology advances that have enabled the manufacture of products from both categories.⁴⁴

The petrochemical industry is expected to become a primary driver of demand for fossil fuels by 2030.⁴⁵ Many advances have been made in the production of the same chemicals and products from biomass or recycled feedstocks rather than fossil feedstocks. One early biobased chemical was developed as an extension of biofuels production, allowing it to utilize existing production capacity. Ethanol obtained from corn and sugarcane, but potentially from lignocellulosic biomass in the future, is easily dehydrated to yield a biobased version of the plastics precursor ethylene.⁴⁶ Plastics comprise most of the fossil chemicals market,⁴⁷ giving biobased plastics an important role to play in its de-carbonization.

Biotechnology companies have also developed biobased versions of synthetic fibers that are used by the textile industry. Polyester, which is widely employed in the manufacture of textiles and bottles, is usually produced from natural gas and/or petroleum feedstocks. Its building blocks can instead be obtained either from ethanol, as in the production of biobased plastics, or from hydrocarbons that are directly converted from biomass feedstocks.^{48–49} In both pathways the resulting fibers are the same as those that are currently produced from fossil feedstocks, making them drop-in biobased products.

Growing concerns over the longevity of plastic waste in the environment have also prompted the development of biodegradable plastics that are capable of decomposing

⁴⁰ <http://www.nytimes.com/2018/10/04/climate/climate-change-plastics.html>.

⁴¹ <http://www.sciencedirect.com/book/9780128001585/project-finance-for-the-international-petroleum-industry>.

⁴² Tayeb, B. *GHG emissions from new petrochemical plants: background information paper for the elaboration of technical notes and guidelines for IDB projects*. IDB TECHNICAL NOTE; Inter-American Development Bank, 2013. <http://publications.iadb.org/publications/english/document/Greenhouse-Gas-Emissions-from-New-Petrochemical-Plants-Background-Information-Paper-for-the-Elaboration-of-Technical-Notes-and-Guidelines-for-IDB-Projects.pdf>.

⁴³ <http://www.businessinsider.com/louisiana-cancer-alley-photos-oil-refineries-chemicals-pollution-2019-11>.

⁴⁴ Isikgor, F.H., Becer, C.R. *Lignocellulosic biomass: a sustainable platform for the production of biobased chemicals and polymers*. DOI: 10.1039/C5PY00263J (Review Article) POLYM. CHEM., 2015, 6, 4497–4559. <http://pubs.rsc.org/ko/content/articlehtml/2015/py/c5py00263j>.

⁴⁵ IEA (2018), *The Future of Petrochemicals*, IEA, Paris. <http://www.iea.org/reports/the-future-of-petrochemicals>.

⁴⁶ <http://www.icis.com/explore/resources/news/2019/11/08/10441869/brazil-braskem-mulls-new-renewable-ethylene-pe-capacity>.

⁴⁷ http://www.usitc.gov/publications/332/working_papers/using_waste_carbon_feedstocks_to_produce_chemicals_0.pdf.

⁴⁸ http://www.ncfap.org/documents/biofuels_aviation/Huber%20George%20Biofuels%20Review.pdf.

⁴⁹ Masuo, S., Zhou, S., Kaneko, T., et al. *Bacterial fermentation platform for producing artificial aromatic amines*. SCI. REP. 6, 25764 (2016). <http://doi.org/10.1038/srep25764>. <http://www.nature.com/articles/srep25764>.

over short timeframes compared to those of traditional plastics. The most common of these are polylactic acid (PLA) and polyhydroxyalkanoates (PHA). PLA is derived from plant sugars that are naturally fermented by bacteria to yield lactic acid. This lactic acid is then chemically converted to PLA for use as a biobased plastic.⁵⁰ PHA is produced via the fermentation of plant sugars (although vegetable oils and even wastewater can also be used) by a different type of bacteria under very specific conditions that promote PHA synthesis.⁵¹ Biobased plastics made from both PLA and PHA are biodegradable under higher-temperature conditions such as those found in industrial composters.

Biotechnology breakthroughs have also been made in the replacement of lesser known but equally important fossil products. Lubricants made from petroleum are in common use throughout the industrial and transportation sectors and, while they represent a small share of a typical refinery's product mix, they are a critical input for many applications (*e.g.*, engine oil). Plant sugars can be fermented by bacteria to yield a chemical that is capable of conversion to biobased versions of the synthetic lubricants that are normally obtained from petroleum.⁵² In a similar application biodiesel, which has a high lubricity, is blended with petroleum-derived ultra-low sulfur diesel fuel to improve the latter's low lubricity.⁵³ Finally, novel medicines and medical treatments are being developed through biotechnology, including those that are personalized to individual patients.⁵⁴

Renewable chemicals and materials provide climate benefits through twin advantages. First, by leveraging biological production platforms, biobased products are frequently less energy-intensive to produce than their petrochemical counterparts. For example, BASF Corporation has developed a biobased home insulation product that results in 66% fewer GHG emissions than its fossil-based alternative.⁵⁵ But, perhaps most significantly, whether produced from biomass or waste gases, biobased products are built from carbon that would otherwise reside in the atmosphere, and thus serve as a vital pathway for atmospheric carbon removal.

The direct recycling of GHG emissions, both biogenic and fossil in origin, to create chemicals and fuels has emerged as a notable pathway over the last decade. Landfills and animal waste lagoons are sources of biogenic emissions of the potent GHG methane. Methane is the primary component of natural gas, however, making biogenic methane when captured a potential biobased chemicals feedstock. Biogas captured from landfills and agricultural anaerobic digesters is also directly utilized as fuel for natural gas-powered vehicles.⁵⁶ The use of biogas in both applications has especially large climate benefits because it eliminates a source of methane emissions while simultaneously displacing demand for a fossil feedstock (biogas combustion converts methane to the comparatively weaker GHG carbon dioxide).

Finally, biotechnology advances have also enabled fossil GHG emissions to be captured and recycled via a pathway known as carbon capture and utilization (CCU), thereby reducing demand for fossil fuels and the resulting emissions without requiring biomass (see Section 2.2.2). One novel process developed by carbon recycling pioneer LanzaTech utilizes engineered microorganisms to ferment emissions captured from industrial facilities such as steel mills to either fuels or chemicals, depending on the choice of microorganism.⁵⁷ While the resulting products are not of biological origin, their climate benefits are substantial and comparable to those of biobased

⁵⁰ Rajeev Mehta, Vineet Kumar, Haripada Bhunia & S.N. Upadhyay (2005) *Synthesis of Poly(Lactic Acid): A Review*, JOURNAL OF MACROMOLECULAR SCIENCE, Part C, 45:4, 325–349, DOI: 10.1080/15321790500304148. <http://www.tandfonline.com/doi/abs/10.1080/15321790500304148>.

⁵¹ Jingnan Lu, Ryan C. Tappel & Christopher T. Nomura (2009) *Mini-Review: Biosynthesis of Poly(hydroxyalkanoates)*, POLYMER REVIEWS, 49: 3, 226–248, DOI: 10.1080/15583720903048243. <http://www.tandfonline.com/doi/abs/10.1080/15583720903048243?journalCode=lmssc20>.

⁵² Balakrishnan, M., *et al.* *Pathways for fuels and lubricants from biomass*. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, Jun. 2015, 112 (25) 7645–7649; DOI: 10.1073/pnas.1508274112. <http://www.pnas.org/content/112/25/7645.short>.

⁵³ h.M.A. Hazrat, M.G. Rasul, M.M.K. Khan, *Lubricity Improvement of the Ultra-low Sulfur Diesel Fuel with the Biodiesel*, ENERGY PROCEDIA, Volume 75, 2015, Pages 111–117, ISSN 1876–6102, <http://doi.org/10.1016/j.egypro.2015.07.619>. <http://www.sciencedirect.com/science/article/pii/S1876610215013879>.

⁵⁴ <http://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/the-bio-revolution-innovations-transforming-economies-societies-and-our-lives>.

⁵⁵ <http://www.basf.com/ca/en/who-we-are/sustainability/we-produce-safely-and-efficiently/energy-and-climate-protection/our-climate-protection-solutions.html> (See Neoporr BMB).

⁵⁶ <http://www.greencarcongress.com/2019/12/20191229-lcfs.html>.

⁵⁷ http://www.usitc.gov/publications/332/working_papers/using_waste_carbon_feedstocks_to_produce_chemicals_0.pdf.

products in that both partially eliminate the need for fossil fuel extraction and serve as sinks for carbon that would otherwise be emitted to the atmosphere.

Like biofuels, the market for biobased chemicals has been constrained by persistent low natural gas and petroleum prices for much of the last decade. The lack of mandates or other policy mechanisms in the U.S. that internalize biotechnology products' climate benefits have made it still more difficult for biobased pathways to compete with fossil pathways. That said, a growing interest by many manufacturers and their consumers in reducing their climate impacts in service of ESG goals has supported an expansion of the U.S. biobased products industry despite these hurdles. One recent analysis estimated the industry's size to be \$459 billion in terms of value added to the U.S. economy in 2016, up from \$393 billion in 2014 and \$353 billion in 2012.⁵⁸ These bioproducts were estimated to displace 9.4 million barrels of petroleum equivalents in 2016. While still smaller than the fossil products sector—the U.S. chemicals industry alone achieved \$765 billion in sales in 2017⁵⁹—the U.S. biobased products industry is expected to grow rapidly as state governments and corporations increasingly act to minimize plastic waste, methane emissions, and other forms of pollution.⁶⁰

Biodegradable biobased products have the potential to substantially contribute to climate change mitigation efforts due to their ability to achieve net carbon sequestration under certain production conditions. A life cycle analysis of the biodegradable bioplastic PHB calculated negative GHG emissions for the product when produced from either corn or biogas, with the greatest amount of carbon sequestration occurring when the PHB is produced from existing PHB that has degraded to biogas.⁶¹ A separate analysis of PHA production determined that the bioplastic has a carbon intensity that is 80% lower than that of fossil-derived plastics even before taking into account the PHA's ability to be recycled following biodegradation.⁶² Biobased PLA for use in water bottles has likewise been found to have a substantially lower carbon intensity than fossil-derived plastic.⁶³ Finally, a comparison of multiple chemicals and fuels pathways determined that products derived from recycled carbon dioxide achieved carbon intensity reductions compared to conventional fossil products despite ultimately being derived from fossil feedstocks.⁶⁴

Biobased products such as renewable chemicals historically have not received as much attention from policymakers as biofuels, due to the lack of direct emissions resulting from their use. That is changing, however, as policymakers in states such as California and New York have implemented economy-wide restrictions on GHG emissions. In addition to disincentivizing the use of fossil feedstocks in energy-intensive manufacturing processes, such policies also encourage entities such as steel mills and refineries to develop new revenue streams via the implementation of CCU technologies.⁶⁵ Biotechnology provides a wide range of options for reducing the carbon intensities of many of the biobased chemicals and products upon which the U.S. economy relies.

⁵⁸ <http://www.biopreferred.gov/BPResources/files/BiobasedProductsEconomicAnalysis2018.pdf>.

⁵⁹ <http://www.selectusa.gov/chemical-industry-united-states>.

⁶⁰ <http://www.usda.gov/sites/default/files/documents/usda-bioindicators-jan-2020.pdf>.

⁶¹ *Environ. Sci. Technol.* 2012, 46, 18, 9822–9829, July 9, 2012. <http://pubs.acs.org/doi/full/10.1021/es204541w>.

⁶² *Environ. Sci. Technol.* 2008, 42, 18, 6961–6966. August 16, 2008. <http://pubs.acs.org/doi/abs/10.1021/es7032235>.

⁶³ Papong, S., et al. *Comparative assessment of the environmental profile of PLA and PET drinking water bottles from a life cycle perspective*, *JOURNAL OF CLEANER PRODUCTION*, 65, 2014, 539–550, ISSN 0959–6526, <http://www.sciencedirect.com/science/article/abs/pii/S0959652613006331>.

⁶⁴ <http://www.iea.org/reports/putting-co2-to-use>.

⁶⁵ <http://www.cdp.net/en/articles/media/steel-sector-faces-significant-losses-from-future-climate-regulation>.



Danimer Scientific Case Study

Biobased PHA is Danimer Scientific's primary bioplastics product. The company manufactures the polyester at a commercial facility in Winchester, Kentucky, by feeding a bacterium with inexpensive vegetable oil feedstock derived from agricultural oilseed crops such as canola, and soy. In addition to directly displacing the fossil fuels used in the manufacture of conventional plastics, Danimer Scientific's production pathway also provides indirect environmental benefits.

Danimer Scientific obtains vegetable oils via the crushing of oilseeds. The crushing process yields protein-rich byproducts that are employed as a natural fertilizer and livestock feed. The vegetable oils are consumed by soil bacteria that biosynthesize the PHA in a bioreactor. The PHA is then separated from the bioreactor medium, purified, and dried in preparation for conversion to various plastic resins, blending with other biopolymers such as PLA, or bonding with materials such as paper.⁶⁶

Danimer Scientific's biobased PHA possesses performance parameters that are comparable to those of many fossil plastics and are capable of use in many of the same applications, including food preservation and storage and conversion to multiple types of finished resins. Unlike fossil plastics, however, PHA utilizes only renewable feedstocks and is biodegradable. This latter characteristic is an important advantage over fossil plastics at a time of growing concern over land-filling and the widespread presence of non-biodegradable plastic waste in many ecosystems.

⁶⁶ <http://danimerscientific.com/pha-beginning-of-life/>.



Genomatica Case Study

Genomatica has commercialized a more sustainable, biobased technology to make a key ingredient used in apparel, spandex, footwear, and plastics used in electronics and automotive parts. Millions of tons per year of this ingredient, 1,4-butanediol (BDO), are currently produced from fossil-derived feedstocks, resulting in many millions of tons per year of greenhouse gas emissions. By contrast, Genomatica's GENO BDO™ process uses renewable feedstocks—the sugars that come from locally-grown crops such as corn and sugarcane—along with engineered microorganisms and fermentation. The products made with Genomatica's ingredient have 56% lower carbon intensity,⁶⁷ and their renewable content is traceable—meaning customers know that the carbon actually came from plants. Genomatica's technology also avoids the use of toxic compounds like formaldehyde, common to fossil processes.

Genomatica's technology has been proven at industrial scale since 2012. Italy-based plastics manufacturer Novamont started production of biobased BDO at a 30,000 ton per year capacity plant in 2016, built with Genomatica's licensed technology. Novamont's BDO has been used in compostable produce bags, mulch film and coffee capsules. BASF has also licensed Genomatica's BDO technology. The Novamont plant is the world's first commercial scale plant to make a widely-used intermediate chemical biologically. Genomatica has received repeated recognition for its innovations, including three EPA Green Chemistry awards, the Kirkpatrick award and ICIS Innovation awards.

2.1.3 Food and Feed Ingredients

According to the 2019 U.N. IPCC *Special Report on Climate Change and Land*, the global food system—including the land and resources to raise animals and grow crops, plus processing, packaging, and transportation—is responsible for up to 19.1 GtCO₂eq annually, or 37% of total net GHG emissions.⁶⁸ The report finds that changes in both production and consumption are needed to meet global emissions reduction objectives. Biotechnology offers the potential for substantial emissions reductions at every stage of the food system, including potentially transformative solutions in food and feed ingredients.

Animal products account for the largest segment of food sector emissions. According to the FAO, livestock production accounts for approximately 7.1 GtCO₂eq annually, or 15% of global GHG emissions, and consumes roughly ¼ of available land worldwide, with meat production expected to increase 19%, and dairy production

⁶⁷ <http://www.brontidebg.com/wp-content/uploads/2020/10/Genomatica-Sustainability-and-Social-Responsibility-2019.pdf>.

⁶⁸ <http://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>.

33%, from 2017 levels by 2030.⁶⁹ Solutions that reduce dependence on animals offer the greatest potential for emissions reductions from the food sector. But, given the growing global demand for meat and other animal products, sustainable near-term solutions are also needed for animal agriculture. Biotechnology is playing a leading role in the development of both new low-carbon product choices and technologies to reduce the carbon footprint of animal agriculture.

Plant-Based Proteins and Food Products

A recent analysis found that if Americans opted for nutritionally equivalent plant-based products for their meat (beef, chicken and pork) consumption choices, U.S. GHG emissions would be reduced by 280 million metric tons annually—roughly equivalent to the total emissions of the state of Ohio.⁷⁰ Consumer concerns with the carbon footprint of animal agriculture—along with health and animal welfare considerations—are driving strong growth in plant-based proteins and food product choices. Many of the leading options leverage biotechnology.

Impossible Foods, the fourth fastest growing brand in the U.S. in 2019,⁷¹ uses engineered yeast to add heme, an iron-containing molecule found in blood, to its plant-based products to produce a meaty flavor. As of September 2020, Impossible Foods burgers were in 11,000 supermarkets and on the menu of a growing list of national and regional restaurant chains.⁷² A 2019 lifecycle analysis of Impossible Foods' burger found a 89% reduction in carbon footprint and 96% reduction in land use versus traditional beef burgers.⁷³

Perfect Day Foods is bringing a similar approach to milk, cheese and ice cream, using genetically engineered microbes to produce animal-free dairy products.⁷⁴ Given the high carbon intensity of dairy products (nearly 12 kilograms of carbon dioxide are produced for every kilogram of butter, for example)⁷⁵ plant-based dairy has the potential to have an outsized impact.

Motif FoodWorks, a spinoff of biotech leader Ginkgo Bioworks, is employing synthetic biology to develop fermentation-based ingredients to enhance the taste and texture of plant-based meat and dairy options. Motif is expected to launch its first commercial product—an ingredient to improve the flavor of beef substitutes—in 2021.⁷⁶

One of the more novel applications of biotechnology is cultured meat products. New Age Meats is one of several companies working to produce cultured meat, an engineered tissue produced in laboratories by microorganisms that induce and feed the growth of animal muscle cells in a bioreactor. Unlike plant-based approaches, cultured meat is a drop-in option for applications in which specific meat attributes are desired. Cultured meat production is an energy-intensive process that requires more energy than poultry production and almost as much energy as pork production (albeit less than sheep or cattle production). But cultured meat's lack of methane production and ability to utilize low-carbon energy sources is projected to reduce GHG emissions up to 96% compared to traditional meat products.⁷⁷ Cultured meat production also utilizes a small fraction of the land required by livestock production, potentially resulting in lower indirect GHG emissions from land-use change. Cultured meat's consumer acceptance is currently limited by its high production costs and novelty, although this is expected to change as the product moves toward commercialization.⁷⁸

⁶⁹ http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/index.htm.

⁷⁰ Eshel, G., Stainier, P., Shepon, A., et al. *Environmentally Optimal, Nutritionally Sound, Protein and Energy Conserving Plant Based Alternatives to U.S. Meat*. Sci. REP. 9, 10345 (2019). <http://doi.org/10.1038/s41598-019-46590-1>. <https://www.nature.com/articles/s41598-019-46590-1>.

⁷¹ http://morningconsult.com/wp-content/uploads/2019/12/Morning-Consult_Fastest-Growing-Brands-2019-Report_FINAL.pdf.

⁷² <http://impossiblefoods.com/media/news-releases/2020/09/impossible-foods-quickly-expands-to-canadas-favorite-restaurant-chains>.

⁷³ <http://impossiblefoods.com/mission/lca-update-2019/>.

⁷⁴ <http://www.perfectdayfoods.com/>.

⁷⁵ <http://www.nrdc.org/sites/default/files/10-common-climate-damaging-foods-info-graphic.pdf>.

⁷⁶ <http://techrunch.com/2020/10/01/motif-foodworks-preps-commercial-production-for-its-first-ingredient-improving-the-flavor-of-beef-substitutes/>.

⁷⁷ *Environ. Sci. Technol.* 2011, 45, 14, 6117–6123, June 17, 2011. <http://pubs.acs.org/doi/full/10.1021/es200130u>.

⁷⁸ Christopher Bryant, Julie Barnett, Consumer acceptance of cultured meat: A systematic review, *Meat Science*, 143, 2018, Pages 8–17, ISSN 0309-1740, <https://doi.org/10.1016/>

Feed and Feed Ingredients

Roughly half of animal agriculture emissions result from land use, production and processing of animal feed.⁷⁹ Biotechnology is being harnessed to address feed-related emissions from multiple angles, from development of new, low-carbon feed options and lower-carbon approaches to feed production to ingredients that reduce feed waste.

In addition to developing biotech options for animal products, biotech innovation is also being deployed to develop new, low-carbon animal feeds. NouriTech, a joint venture between biotech start-up Calysta and Cargill, is among a growing list of companies using microorganisms to convert methane and other heat-trapping waste gases into single-cell proteins or other ingredients for animal feed. In addition to recycling GHGs that would otherwise be emitted directly to the atmosphere, this process, known as gas fermentation, does not require the use of arable land, avoiding the largest source of GHG emissions associated with feed production. A lifecycle analysis of NouriTech's FeedKind fish feed protein found GHG emissions up to 30 percent lower than conventional fish meal, depending on the source of methane used.⁸⁰ Several biotech businesses are also developing feed ingredients using algae. Similar benefits are anticipated.

Reducing Emissions from Animals

Another leading source of GHGs from agriculture are emissions from the animals themselves. Roughly 40% of all animal agriculture emissions is attributable to methane from enteric fermentation in the digestive system of ruminant animals, for example.⁸¹ Biotech solutions are being developed to address emissions from cattle, swine, poultry, and other animals.

Cattle are the leading source of animal emissions, due to the large numbers of cattle grown globally and their high levels of enteric methane production. Microbial feed additives have the potential to dramatically reduce enteric methane emissions from ruminant livestock by disrupting the methane production process. One ester additive suppresses the enzyme that causes methane production in the digestive tracts of cattle, reducing methane emissions by 30% or more.⁸² A study in peer review of microbial feed additives developed by biotech start-up Locus Fermentation Solutions found reduction in methane levels of up to 78%.⁸³ And recent studies have found methane reductions of up to 99% using certain species of algae.^{84–85} Feed additives based on extracts of garlic and citrus have also produced strong results.⁸⁶ All three additives are being developed for the market. Finally, two other feed additives that are already on the market, one a yeast culture⁸⁷ and the other a blend of essential oils,⁸⁸ reduce dairy cow methane emissions indirectly by increasing the efficiency of milk production, thereby reducing the number of methane-emitting dairy cows needed to produce a certain volume of milk.

Biotech enzymes from Novozymes and others have also been introduced into pig and chicken feed to improve nutrient uptake, reduce waste, and substantially reduce carbon footprint.⁸⁹

Emissions of methane and nitrous oxide from manure is another significant source of GHGs, accounting for ten percent of emissions from animal agriculture.⁹⁰ As mentioned previously, biotechnology has a key role in reducing these emissions as well. The use of anaerobic digestion in animal agriculture has the potential to reduce U.S. GHG emissions by 151 MTCO₂eq. annually by 2050 using current tech-

j.meatsci.2018.04.008. <http://www.sciencedirect.com/science/article/abs/pii/S0309174017314602>.

⁷⁹ http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/in dex.htm.

⁸⁰ <http://www.carbontrust.com/resources/assessment-of-environmental-footprint-of-feedkind-protein>.

⁸¹ http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/in dex.htm.

⁸² *Proceedings of the National Academy of Sciences*. Aug. 2015, 112 (34) 10663–10668; DOI: 10.1073/pnas.1504124112. <http://www.pnas.org/content/112/34/10663>.

⁸³ <http://locusfs.com/leading-california-university-finds-78-percent-reduction-in-livestock-methane-emissions-with-direct-fed-microbials-from-locus-fermentation-solutions/>.

⁸⁴ <http://www.biorxiv.org/content/10.1101/2020.07.15.204958v1.abstract>.

⁸⁵ <http://www.sciencedirect.com/science/article/abs/pii/S0959652619321559>.

⁸⁶ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7200514/>.

⁸⁷ <http://www.sciencedirect.com/science/article/abs/pii/S108074461530139X>.

⁸⁸ <http://www.mdpi.com/2076-2615/10/4/620>.

⁸⁹ <http://biosolutions.novozymes.com/animal-health-nutrition/en/insights/whitepaper/making-feed-more-sustainable>.

⁹⁰ http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/in dex.htm.

nology.⁹¹ Considerable research and development is also underway to utilize biotechnology to improve the efficiency of anaerobic digestion through optimization of the microbes and microbial communities used.⁹²

Open manure lagoons are capable of both reducing existing methane emissions and displacing fossil fuels when converted to enclosed anaerobic digesters. These systems capture the lagoons' methane emissions in the form of biogas that can be used to displace fossil fuels such as natural gas as a source of heat and/or electricity. The combustion of the biogas converts the methane into the less-potent GHG carbon dioxide. (One ton of methane has 84 times the global warming potential over 20 years of a ton of carbon dioxide.)⁹³ This capability, when combined with fossil fuel displacement, can result in carbon intensity values for biogas that are very negative despite not involving net carbon sequestration. Biogas that is produced from dairy manure and injected into natural gas pipelines for use as transportation fuel in compressed natural gas vehicles under California's LCFS has received certified carbon intensities that are almost four times lower than that of gasoline, for example.⁹⁴ One estimate calculated that up to 3% of total U.S. electricity consumption could be met by biogas produced in manure lagoons and captured for use with microturbines.⁹⁵

Increased demand for animal protein will cause the livestock sector's contribution to global GHG emissions to increase in the years ahead. The use of biotechnology to limit the climate change impacts of livestock production is at a comparatively early stage of development due to a lack of low-carbon incentives, such as those that have existed in the U.S. power and transportation sectors since the turn of the century. Biotechnology has the potential to drive both near-term and long-term GHG emission reductions in the livestock sector, however. Feed additives and the use of enclosed anaerobic digesters can reduce near-term emissions.

Food and Feed Waste

Waste from food and feed production and delivery is also a significant source of GHG emissions. Nearly 1/3 of all food produced is wasted annually. This food waste had a carbon footprint of 3.3 GtCO₂eq in 2007, representing seven percent of total global GHG emissions, according to the FAO.⁹⁶ Biotech solutions are available or under development to reduce food waste at multiple stages of the food and feed system.

The use of enzymes in bread and other baked goods has significantly enhanced product shelf life and reduced waste.⁹⁷ Organic acids and other products of industrial biotechnology have been developed by BASF and others to reduce spoilage of animal feeds.⁹⁸ Other biotech innovators are developing biobased antimicrobial coatings to reduce spoilage and inhibit pathogens in fruits and vegetables.⁹⁹ Others still are focusing on the use of biosensors to optimize produce ripeness to minimize spoilage.^{100–101}

Food Ingredients

Biotechnology is also reducing the carbon footprint of a variety of food ingredients. The plant-based sweetener, stevia, for example has shown an 82% reduction in carbon footprint compared with beet sugar and a 64% reduction compared with cane sugar.¹⁰² But the most desirable compounds of the stevia leaf are present in very low concentrations, limiting its market. Biotech leaders Evolva and DSM have developed pathways to produce those key stevia compounds through fermentation. Both have formed partnerships with Cargill and began production of fermentation-

⁹¹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3155279/>.

⁹² <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7198183/>.

⁹³ <http://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

⁹⁴ <http://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>.

⁹⁵ <http://iopscience.iop.org/article/10.1088/1748-9326/3/3/034002/meta>.

⁹⁶ <http://www.fao.org/3/i3347e/i3347e.pdf>.

⁹⁷ http://wwfeu.awsassets.panda.org/downloads/wwf_biotech_technical_report.pdf.

⁹⁸ <http://www.basf.com/us/en/who-we-are/sustainability/we-drive-sustainable-solutions/sustainable-solution-steering/examples/organic-acids-luprosil-amasil.html>.

⁹⁹ <https://www.foodnavigator.com/Article/2019/10/21/A-new-tool-in-the-fight-against-food-waste-Milekoms-is-highly-effective-environmentally-friendly-and-versatile>.

¹⁰⁰ Neethirajan S., Ragavan V., Weng X., Chand R. *Biosensors for Sustainable Food Engineering: Challenges and Perspectives*. BIOSENSORS. 2018; 8(1): 23. <https://doi.org/10.3390/bios8010023>.

¹⁰¹ <https://penntoday.upenn.edu/news/strella-biotechnologies-biosensors-minimize-food-waste-one-apple-time>.

¹⁰² https://journals.lww.com/nutritiontodayonline/Fulltext/2015/05000/Stevia,_Nature_s_Zero_Calorie_Sustainable.7.aspx.

¹⁰³ <https://www.cargill.com/food-beverage/na/eversweet-faqs>.

based stevia at commercial scale in 2019. Cargill's initial lifecycle assessment suggests the fermentation-based stevia has an even lower carbon footprint than the plant-based extract.¹⁰³ Nearly 200 million tons of sugar are produced globally each year.¹⁰⁴ With a carbon footprint of 241 kg CO₂e per ton of sugar,¹⁰⁵ the sugar sector accounts for roughly 48 MTCO₂ annually.

Biotechnology	Applications in Food and Feed Waste
Organic Acids	Reduce Spoilage In Animal Feeds
Biobased Coatings	Reduce Spoilage and Inhibit Pathogens in Fruits and Vegetables
Biosensors	Optimize Ripeness to Minimize Spoilage
Plant Genetic Engineering	Develop Food Varieties With Less Spoilage
Animal Genetic Engineering	Develop Farmed Animals That Require Less Food

As another example, vanillin, one of the most widely used synthetic food ingredients, was traditionally produced through a carbon- and energy-intensive process using coal tar. New biotech routes now allow for purer production without reliance on extraction or processing of fossil fuels.¹⁰⁶

Food Processing

Biotech enzymes are also being used to dramatically lower the carbon footprint of food processing. The most significant example is the use of enzymes in meat processing. By eliminating energy-intensive traditional processing steps, industry-wide integration of enzymatic processes for meat processing would result in over 100 MTCO₂e annually, according to the World Wildlife Fund. Smaller, but significant, reductions would result from adoption of enzymatic processing in fish and dairy processing, and beer and wine production. WWF estimated the total potential reductions from enzyme applications in the food sector at 114 to 166 MTCO₂e annually.¹⁰⁷

¹⁰⁴ <https://apps.fas.usda.gov/psdonline/circulars/sugar.pdf>.

¹⁰⁵ <https://cbmjournals.biomedcentral.com/articles/10.1186/1750-0680-5-3#:~:text=According%20to%20our%20calculations%2C%20241,a%20ton%20of%20sugarcane%20processed>.

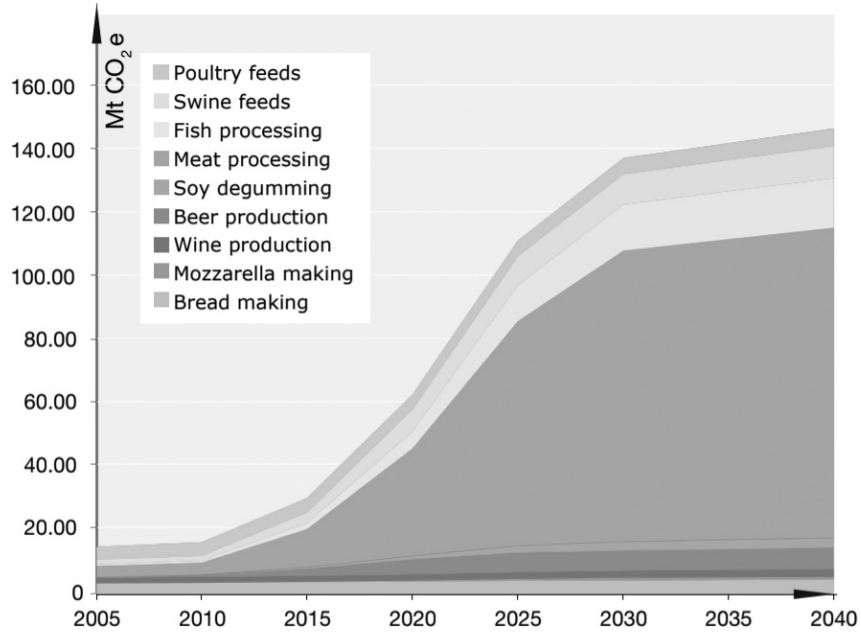
¹⁰⁶ <https://www.forbes.com/sites/johncumbers/2019/10/30/better-than-nature-fermenting-vanilla/#2e35b85636c3>.

¹⁰⁷ https://wwfeu.asssets.panda.org/downloads/ww_biotech_technical_report.pdf.

¹⁰⁸ <http://www.nature.com/articles/s41598-020-68231-8>.

¹⁰⁹ <http://www.veramaris.com/why-we-do-it-detail.html#sustainable-growth>.

Figure 2. Potential GHG reductions from applications of biotechnology in the food industry.



Source: Figure 5, https://wwfeu.awsassets.panda.org/downloads/wwf_biotech_technical_report.pdf.



Veramaris Case Study

Fish are among the lowest carbon intensity sources of meat.¹⁰⁸ As global demand for animal products continues to grow, and with most of the world's wild

¹⁰⁸ <http://www.nature.com/articles/s41598-020-68231-8>.

fish stocks at, or beyond, sustainable harvest levels,¹⁰⁹ aquaculture—farmed fish and other seafood—will play a key role in mitigating the impact of meat consumption on the climate.

Salmon aquaculture is the fastest-growing food production system in the world.¹¹⁰ Salmon's popularity and relatively low carbon intensity make it an attractive option to displace some of the projected growth in the consumption of beef and other higher carbon intensity meats. The growth of salmon aquaculture is currently limited by the availability of the marine omega-3 oils EPA and DHA, key components of salmon diets. Marine omega-3 oils have, until recently, been derived almost exclusively from wild-caught oily fish, such as anchovy and menhaden, whose wild stocks are limited and increasingly threatened by climate change.¹¹¹

Veramaris, a joint venture between biotech leaders DSM and Evonik Industries, has eliminated this supply chain and sustainability barrier by developing a biotech approach to marine omega-3 oil production. Veramaris identified marine algae that produce EPA and DHA naturally, and recently began commercial production of algae-based omega-3 oils at a \$200 million facility in Blair, Nebraska.¹¹² The facility can produce omega-3 oils equivalent to 1.2 million tons of wild-caught fish, enough to supply 15 percent of salmon farming industry demand,¹¹³ and has brought jobs and economic development to a region hit hard by low commodity prices and recent trade disputes.

By sourcing omega-3 oils from locally grown algae, Veramaris also dramatically shortens the feed supply chain, reducing emissions associated with the harvesting, processing, and transport of fish oil.

2.2 Agriculture Inputs and Climate Services

2.2.1 Agricultural Biological

Modern agriculture is an energy-intensive process. In addition to the need to fuel heavy machinery, many farming practices release carbon dioxide from both biogenic and fossil sources that would otherwise remain stably sequestered. Intensive tilling practices expose soil carbon to the atmosphere, allowing it to react with oxygen to form carbon dioxide. Nitrogen fertilizers increase the sequestration potential and minimize the land footprint of crops, but they are derived from fossil fuels such as natural gas and generate the potent GHG nitrous oxide. Advances in crop science and technology can mitigate some of these unwanted environmental effects. No-till agriculture using herbicide-resistant crops limits soil disruption and reduces the amount of soil carbon that is released to the atmosphere as carbon dioxide. The development of crop varieties with added or improved nitrogen-fixing capabilities allows for more efficient use of nitrogen fertilizer when combined with crop rotation practices.¹¹⁴ And the engineering of commonly used crops to give them resistance to environmental threats such as drought and pests enhances their carbon sequestration potential while minimizing indirect GHG emissions from deforestation.

One of the fastest growing, and most promising, applications of biotechnology is in agricultural biologicals. Soil microorganisms play a key role in plant growth, enabling efficient access to nutrients and protecting against pests and diseases. Ag biologicals leverages biotechnology to improve soil microbes and enhance these natural processes. A major area of focus for ag biologicals companies is increasing plant uptake of nitrogen to allow for more efficient use of synthetic nitrogen fertilizer. Synthetic nitrogen fertilizer is a significant source of climate-warming gases. It is energy intensive to produce, and a substantial fraction of the nitrogen in fertilizer becomes nitrous oxide (N₂O) a greenhouse gas 298 times more potent than carbon dioxide. Joyn Bio, a joint venture between the synthetic biology company, Ginkgo Bioworks, and Bayer, is engineering microbes to enable cereal crops like corn, wheat, and rice to convert nitrogen from the air into a form they can use to grow, allowing for more efficient use of synthetic fertilizers for many of the world's leading crops.

¹⁰⁹ <http://www.veramaris.com/why-we-do-it-detail.html#sustainable-growth>.

¹¹⁰ <http://www.worldwildlife.org/industries/farmed-salmon>.

¹¹¹ <http://insideclimatenews.org/news/27092019/ocean-fish-diet-climate-change-impact-food-ipcc-report-cryosphere>.

¹¹² <http://www.feednavigator.com/Article/2019/07/15/New-Veramaris-facility-will-help-it-expand-into-new-markets>.

¹¹³ <http://www.veramaris.com/press-releases-detail/veramaris-opens-us200m-facility-for-epa-dha-omega-3-algal-oil-to-support-sustainable-growth-in-aquaculture.html>.

¹¹⁴ <http://news.wisc.edu/corn-that-acquires-its-own-nitrogen-identified-reducing-need-for-fertilizer/>.

Other biotech researchers and businesses are developing nitrogen- and carbon-fixing bacteria or algae to build soil carbon and enhance the absorption of atmospheric nitrogen by soils.^{115–116} And biotech innovators such as Vestaron are developing safer, more sustainable crop protection tools, such as biological peptides, to provide crops with greater resiliency to plant stress induced by climate change.¹¹⁷



Joyn Bio Case Study

Nitrogen is an essential nutrient for plant growth, but the abundant nitrogen in the atmosphere is not in a form that plants can use. Soybeans, peanuts, and other legumes have developed a symbiotic relationship with nitrogen-fixing microorganisms in the soil that convert nitrogen from the air into a form they can absorb through their roots. But cereal crops like corn, wheat, and rice don't have this ability, and require the addition of fertilizers to maximize growth.

Synthetic nitrogen fertilizers have revolutionized farming, but are a potent source of agricultural greenhouse gas emissions. They are energy intensive to produce, and a substantial fraction of the nitrogen in fertilizer becomes nitrous oxide (N₂O) a greenhouse gas up to 298 times more potent than carbon dioxide.¹¹⁸ Joyn Bio, a joint venture between the synthetic biology company, Ginkgo Bioworks, and Bayer, is using biotechnology to reduce agricultural GHG emissions by designing nitrogen-fixing soil microbes that work with corn and other cereal crops, allowing for more efficient use of synthetic fertilizers for many of the world's leading crops.

2.2.2 Biological Carbon Capture, Use and Storage

Biomass is one of America's major, albeit transitory, carbon sinks. All forms of biomass that employ photosynthesis capture atmospheric carbon dioxide and convert it to carbon-based compounds such as sugars, starch, and lignocellulose. The carbon content of this biomass remains sequestered until the biomass is either consumed or decomposes, at which time much of it is oxidized and released back to the atmosphere as carbon dioxide. Some of the carbon content, such as that contained in a plant's roots, is sequestered for much longer time periods in the form of below-ground biomass. It is for this reason that the afforestation/reforestation of marginal land can result in the formation of new carbon sinks and the long-term removal of carbon dioxide from the atmosphere.

¹¹⁵ <http://www.frontiersin.org/articles/10.3389/fmicb.2019.01146/full>.

¹¹⁶ http://usea.org/sites/default/files/event-/USEA%20Tech%20Briefing_Matt%20Carr_Algae%20for%20Carbon%20Capture%20&%20Use_March_2018.pdf.

¹¹⁷ Iriti M., Vitalini S. *Sustainable Crop Protection, Global Climate Change, Food Security and Safety-Plant Immunity at the Crossroads*. VACCINES. 2020; 8(1): 42. <http://doi.org/10.3390/vaccines8010042>. <https://www.mdpi.com/2076-393X/8/1/42>.

¹¹⁸ <http://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

Carbon that is sequestered as below-ground biomass can remain in that state so long as the surrounding soil is not disrupted. The length of time that biomass's aboveground carbon content remains sequestered depends on how the biomass is utilized. The combustion of biomass, whether in its natural form or following conversion to biofuel, results in the oxidation and release of its carbon content as carbon dioxide. While carbon-neutral in the sense that the released biogenic carbon had been captured from the atmosphere during the growing season, traditional combustion prevents the carbon from being either sequestered or reused prior to the completion of another growing season.

A variety of biotechnologies have been developed that either capture and sequester or recycle atmospheric carbon dioxide. Many of these processes are closely related to the biobased products covered in Section 2.1 because of the ability of biomass to capture atmospheric carbon dioxide before being converted to different fuels and products. The technologies in question impact every stage of the biomass supply chain, from growth/production to conversion and ultimately end-of-life disposal.

Carbon capture and storage (CCS) technologies enable carbon dioxide emissions from fossil power plants or industrial facilities, such as cement or steel, to be captured at the facility and stored underground. A variety of approaches have been developed to absorb carbon dioxide from flue gases, or to remove carbon prior to combustion.¹¹⁹ CCS can also be deployed at facilities utilizing biomass as feedstock. The process is largely the same as that employed at some fossil fuel facilities but, whereas fossil energy carbon capture and sequestration (FECCS) processes reduce the GHG emissions of fossil fuels, biomass energy carbon capture and sequestration (BECCS) processes actually reverse past emissions. The biomass captures atmospheric carbon dioxide during its growth phase and is then combusted, yielding both energy and carbon dioxide. The bioenergy displaces fossil energy and the carbon dioxide is either sequestered in underground caverns as a gas or converted to a degradation-resistant solid such as biochar. BECCS is therefore a carbon-negative process in that it results in more carbon dioxide being sequestered than emitted. Biotechnology advances that increase the growth rate, growth potential, and harvest efficiency of biomass that is used as BECCS feedstock all enhance the process's carbon sequestration capability.

BECCS technology can also be deployed to achieve negative carbon results at any industrial facility using biomass as a feedstock. Perhaps the most intriguing application of BECCS is its potential use at ethanol plants and other biorefineries. One third of the carbon in the biomass feedstock used to produce ethanol is released in the form of carbon dioxide during the fermentation process. Using BECCS to capture this CO₂ reduces the carbon intensity of ethanol by 40%.¹²⁰ Biorefineries represent an extremely attractive option for deploying BECCS because the product of fermentation is a nearly pure (99%) stream of CO₂, requiring little or no separation from other gases. As a result, biorefinery BECCS is among the lowest-cost carbon capture opportunities available, at an estimated cost of under \$30 per ton of CO₂ compared to \$60–\$120 per ton at fossil power plants or traditional industrial facilities.¹²¹ The world's first ethanol BECCS project is now in operation in Decatur, Illinois, capturing and storing 1 MTCO₂eq per year that would otherwise have been emitted to the atmosphere.¹²²

In addition to its role in providing biomass feedstocks for BECCS, biotechnology is increasingly seen as a key enabling technology for carbon capture itself. The U.S. Department of Energy (DOE) has invested over \$150 million since 2015 in the development of algae and other microbial systems for carbon capture as an alternative—or complimentary—approach to chemistry-based approaches to CO₂ extraction from flue gases.¹²³ Microbial systems have several significant advantages over thermochemical approaches to carbon capture. Typical thermochemical CCS systems are highly energy intensive. Roughly 30% of captured carbon is offset by the additional fossil fuel combustion required to separate, compress, and transport the captured carbon.¹²⁴ Microbial systems can dramatically reduce this “parasitic load.” Algae and other microbes extract CO₂ or other target gases biologically, via photosynthesis or other natural energy pathways, eliminating the energy inputs required for separation. Microbial systems can even operate efficiently at the relatively low

¹¹⁹ <http://www.c2es.org/content/carbon-capture/>.

¹²⁰ <http://www.pnas.org/content/pnas/early/2018/04/18/1719695115.full.pdf>.

¹²¹ <http://www.pnas.org/content/pnas/early/2018/04/18/1719695115.full.pdf>.

¹²² <http://www.energy.gov/fe/articles/doe-announces-major-milestone-reached-illinois-industrial-ccs-project>.

¹²³ <http://algaebiomass.org/blog/10655/2020-will-see-record-federal-funding-algae-rd/>.

¹²⁴ <http://www.reuters.com/article/us-carboncapture-economics-kemp/carbon-captures-energy-penalty-problem-kemp-idUSKCN0HW0TZ20141007>.

CO₂ concentrations found in flue gases from natural gas or coal-fired power plants, and can be deployed economically at relatively small scale to address emissions from smaller power plants and industrial facilities that cannot support traditional CCS systems. Microbial systems also convert the captured carbon into a usable solid or liquid form directly, eliminating the substantial energy inputs required to compress captured CO₂ for transport, or for use in enhanced oil recovery. As such, *microbial carbon capture systems applied to biomass energy or other biorefinery systems offer one of the most carbon-negative climate solutions available.*

DOE in its 2016 Billion Ton Report found that *suitable land and other infrastructure exists to deploy algae-based carbon capture systems at more than 500 power plants and ethanol facilities in the U.S. These systems would have a potential to capture more than 200 MT CO₂ annually.*¹²⁵

Biomass and carbon capture can then be combined with the carbon dioxide recycling technologies discussed in Section 2.1 to produce negative-carbon products from captured biogenic carbon. The biomass energy carbon capture and utilization (BECCU) process displaces both fossil energy consumption and fossil fuel emissions. As with BECCS, BECCU uses biogenic carbon to generate energy via combustion, displacing fossil fuels in the process. The resulting carbon dioxide is captured but, instead of being sequestered, is converted into yet another fuel or product that displaces additional fossil fuels. BECCU can still be carbon-negative, either because it displaces more carbon dioxide emissions from fossil fuels than it emits when the utilization takes the form of conversion to biofuels or biodegradable products, or because the utilization takes the form of conversion to non-biodegradable products.¹²⁶ In the latter case, carbon sequestration still occurs, but in a long-lifetime product, rather than geologic storage.

BECCS and BECCU are not widely employed in the U.S. at present due to a relative lack of economic or policy incentives for the capture of carbon dioxide. Those CCS projects that do exist in North America involve fossil rather than biogenic sources of carbon.¹²⁷ That said, climate scientists increasingly believe that the two technologies will need to be widely utilized if catastrophic climate change is to be avoided. The UN's Intergovernmental Panel on Climate Change (IPCC) has concluded that keeping the atmospheric carbon dioxide level below 450 ppm by 2100, as is necessary if catastrophic climate change is to be avoided, will require the "availability and widespread deployment of BECCS and afforestation."¹²⁸ The primary hurdle facing BECCS/BECCU commercialization is one of economics rather than technology: carbon capture is economically unattractive at a time when the cost of emissions is lower than the cost of capture.¹²⁹ The technical feasibility of capture and sequestration is especially well-established for those technologies that rely upon natural processes such as the building of soil carbon via afforestation/re-forestation or the planting of certain dedicated energy crops. BECCU also offers an advantage over BECCS in the absence of a high emissions cost due to its production of higher-value products such as fuels or chemicals; BECCS, by contrast, produces lower-value products such as heat and electricity.¹³⁰

The ability of BECCS to achieve net-negative carbon emissions and their magnitude depend on several different factors involving the different stages of the supply chain. A comparison of multiple biomass feedstocks combusted in a power plant equipped with CCS technology determined that while growth of the three feedstocks considered (Miscanthus, switchgrass, and willow) all have the potential to achieve net sequestration, the actual amount of sequestration that occurs is determined by biomass transportation distances, carbon capture rates, and especially land-use change (*e.g.*, what type of land that the biomass feedstock is grown on).¹³¹ The analysis calculated that the amount of carbon dioxide ultimately sequestered on average while generating 1 megawatt hour of electricity via BECCS with Miscanthus and switchgrass is equal to the average amount emitted by U.S. power plants to generate an equal amount of electricity.

BECCU has also been found to achieve low-to-negative carbon intensities. A life cycle assessment that compared the carbon intensities of ethanol produced from steel mill waste gases found its carbon footprint to be at least 60% lower than that

¹²⁵ <http://algaebiomass.org/blog/9541/doe-2016-billion-ton-report-ample-resources-for-algae-production-in-the-u-s/>.

¹²⁶ <http://www.slideshare.net/UKCCSRC/richard-murphy-cardiffbase14>.

¹²⁷ <http://fas.org/sgp/crs/misc/R44902.pdf>.

¹²⁸ http://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_summary-for-policy-makers.pdf.

¹²⁹ <http://www.sciencedirect.com/science/article/abs/pii/S0959652614009536>.

¹³⁰ <http://www.sciencedirect.com/science/article/abs/pii/S136403211730014X>.

¹³¹ <http://pubs.rsc.org/en/content/articlelanding/ee/2017/c7ee00465f>.

of gasoline.¹³² Dedicated energy crops such as Miscanthus and willow grown for the purpose of electricity generation have been found to achieve net-negative emissions of carbon dioxide due to the combined effects of soil carbon sequestration and the displacement of fossil fuels.¹³³ A different analysis found emissions via afforestation/reforestation to also be negative even if the forest is harvested and utilized as wood products such as sawtimber, as these constitute a different form of BECCU.¹³⁴

The carbon dioxide reduction and sequestration potential of BECCS/BECCU technologies is very sensitive to land-use change. For example, the largest amount of sequestration occurs when dedicated energy crop growth or afforestation/reforestation occurs on abandoned or marginal croplands that have previously had their soil carbon depleted. On the other hand, the conversion of grassland to these uses results in a reduced sequestration potential, while the conversion of productive cropland can have the lowest sequestration potential of all if the resulting decrease in the supply of the crop causes the conversion of land such as forest to cropland somewhere else. Biotechnology provides several methods for mitigating these unintended consequences through advances in plant and crop science that are described in more detail in Section 2.4.1.



LanzaTech Case Study

LanzaTech is unique for its ability to make low carbon fuels and chemicals from a variety of waste-based feedstocks, including industrial emissions, unsorted, unrecyclable municipal solid waste, and agricultural or forestry wastes and residues. The company utilizes a naturally occurring bacteria originally isolated from rabbit droppings. As part of its natural biology, the bacteria ferments gases containing carbon dioxide, carbon monoxide, and/or hydrogen into ethanol. This ethanol can be used directly as a fuel to displace gasoline or as a chemical in consumer products.¹³⁵ Additionally, ethanol can be upgraded to make consumer goods from polyethylene¹³⁶ or PET, and to make sustainable aviation fuel (SAF) via the LanzaJet Alcohol-to-Jet pathway,^[1] to displace fossil fuel demand in the aviation sector. The opportunities for LanzaTech's tech-

¹³² <http://pubs.acs.org/doi/abs/10.1021/acs.iecr.5b03215>.

¹³³ <http://www.sciencedirect.com/science/article/pii/S0961953409002402>.

¹³⁴ <http://link.springer.com/article/10.1007/s11367-013-0629-6>.

¹³⁵ <http://www.cnn.com/2018/07/27/lanzatech-turns-carbon-waste-into-ethanol-to-one-day-power-planes-cars.html>.

¹³⁶ <http://www.lanzatech.com/2018/10/04/virgin-atlantic-lanzatech-celebrate-revolutionary-sustainable-fuel-project-takes-flight/>.

^[1] <http://www.lanzatech.com/2019/11/22/lanzatech-moves-forward-on-sustainable-aviation-scale-up-in-the-usa-and-japan/>.

Editor's note: there appears to be a discrepancy in the numbering of the footnotes. Footnotes 137–139 were used in the *LanzaTech Case Study* and were duplicated in the following section. To avoid confusion the *LanzaTech Case Study* footnotes are renumbered [i]–[iii].

nologies to utilize waste carbon to produce multiple low carbon fuels and chemicals has expanded over the last decade as its technology has been licensed worldwide.

The LanzaTech pathway differs from conventional ethanol production in that it feeds its microorganisms with a gas stream rather than a liquid sugar substrate. While carbon is the most important ingredient in this gas stream, the microorganisms are capable of fermenting gases produced from a variety of industrial processes and feedstocks. The gases are captured and compressed before being delivered to a bioreactor where fermentation to ethanol occurs. The ethanol is then recovered from the bioreactor and stored for future use either in that form or following subsequent upgrading to a hydrocarbon fuel.

The first commercial-scale facility to utilize LanzaTech's pathway is a steel mill located near Beijing, China. Waste gases produced at the mill are captured and fermented to ethanol at a rate of 16 million gallons per year. The company estimates that the recycling of the mill's GHG emissions in this manner is the equivalent of removing 80,000 cars from the road annually.^[ii] The success of the technology at such a large scale has resulted in plans to apply it to other types of industrial facilities, including a petroleum refinery in India that will achieve an annual ethanol yield of 11 million gallons, a steel mill in Belgium that will achieve an annual ethanol yield of 21 million gallons, and a smelter in South Africa that will achieve an annual ethanol yield of 17 million gallons.

Beyond recycled carbon fuels, LanzaTech's platform can make second generation biofuels through gasification of biomass wastes and residues. LanzaTech is developing a project to convert locally available agricultural residues to approximately 5.3 million gallons per year of fuel grade ethanol in India, using commercially proven gasification technology and LanzaTech's commercially proven gas fermentation platform. The integrated technology will have the flexibility to process a wide range of biomass feedstocks enabling rapid replication at other locations.

A byproduct of the project will be a nutrient rich biochar. Biochar can be a useful soil supplement to enrich soil organic carbon and other nutrients. In 2018, LanzaTech launched a new company, LanzaJet to accelerate the commercialization of SAF production. The LanzaJet process can use any source of sustainable ethanol for jet fuel production, including, but not limited to, ethanol made from recycled pollution, the core application of LanzaTech's carbon recycling platform.

Commercialization of this process, called Alcohol-to-Jet (AtJ) has been years in the making, starting with the partnership between LanzaTech and the U.S. Energy Department's Pacific Northwest National Laboratory (PNNL). PNNL developed a unique catalytic process to upgrade ethanol to alcohol-to-jet synthetic paraffinic kerosene (ATJ-SPK) which LanzaTech took from the laboratory to pilot scale. SAF produced via the company's pathway has already been employed in two commercial flights to demonstrate its ability to displace fossil aviation fuel.^[iii] LanzaTech estimates that SAF produced using its technology achieves a 70% reduction to carbon intensity compared to fossil aviation fuel.

2.3 *New Biotech Tools and Bioindustrial Manufacturing*

2.3.1 *New Biotech Tools*

Rapid advances in the fundamental tools of biotechnology increasingly are enabling biotech solutions in manufacturing sectors beyond food, fuels and chemicals. These developments offer the potential for transformative climate solutions in applications beyond manufacturing as well.

Biotech tools for manipulating DNA have been in use for decades. Many of the most important contributions of biotechnology—vaccines and therapies, biotech crops, and modern industrial biotechnology—were made possible by this first generation of genetic engineering tools. But the past decade has seen a wave of new biotech tool innovation with transformative potential. In synthetic biology, scientists insert synthesized pieces of DNA into an organism's genome to alter the characteristics or function of the organism. In genome editing, scientists use tools to make more precise changes to the organism's own DNA to achieve the same outcome.¹³⁷ These and other new biotech tools have dramatically increased the speed and re-

^[ii] <http://www.cnn.com/2018/07/27/lanzatech-turns-carbon-waste-into-ethanol-to-one-day-power-planes-cars.html>.

^[iii] <http://www.lanzatech.com/2018/10/04/virgin-atlantic-lanzatech-celebrate-revolutionary-sustainable-fuel-project-takes-flight/>.

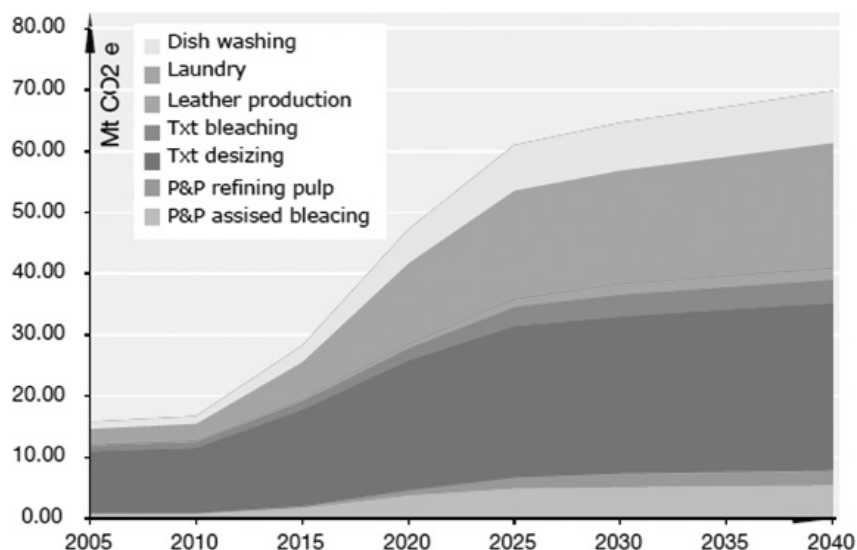
¹³⁷ <http://www.genome.gov/about-genomics/policy-issues/Synthetic-Biology>.

duced the cost of genetic engineering applications and are being deployed to tackle a range of global challenges, including climate change.¹³⁸

2.3.2 Applications of Bio-Manufacturing in Traditional Industries

Some of industrial biotechnology's earliest uses were in the application of enzymes to improve efficiency and reduce energy use in traditional industries. The introduction of enzymes for pulp and paper bleaching, for example, reduced energy consumption 40% *versus* traditional bleaching, and a shift to fermentation-based production of riboflavin (vitamin B₂) in the early 2000's reduced associated CO₂ emissions 80% compared to the traditional chemical manufacturing route.¹³⁹ Applications of enzymes in textile processing, such as pretreatment, bleaching and desizing, save approximately 10 MTCO₂e annually today. Full adoption of these technologies would triple these reductions. The widespread use of enzymes in laundry and dishwasher detergent could save an additional 30 MTCO₂e annually by 2040 by allowing for cold-water washing of laundry and more efficient dishwashing. Full market penetration of biotech applications in these traditional industries is estimated to save 65 MTCO₂e annually by 2030.¹⁴⁰ While these GHG are incremental relative to the global challenge of climate change, they represent near-term opportunities that will be essential to reducing near-term emissions.

GHG reduction potential from applications of biotechnology to traditional industries.



Source: Figure 7, https://wwfeu.awsassets.panda.org/downloads/wwf_biotech_technical_report.pdf.

2.3.3 New Markets and Novel Applications

With the emergence of synthetic biology and the ability to tailor microbes to specific industrial tasks, industrial biotechnology solutions are moving into an ever-expanding range of applications. A rapidly growing number of companies, such as Ginkgo Bioworks, Arzeda, and Twist Biosciences, are providing organism design and DNA synthesis services, using synthetic-biology and other modern biotechnology tools to optimize manufacturing pathways. SynBio companies raised over \$1 billion in investment in the second quarter of 2019 alone.¹⁴¹

One intriguing potential application of these new biotech tools is in biological data storage, the storage of data on strands of DNA instead of semiconductors or magnetic devices. DNA is roughly a million times denser than conventional hard-disk storage. Testing is now underway with computers that store data by synthesizing

¹³⁸ <http://www.genome.gov/about-genomics/fact-sheets/Sequencing-Human-Genome-cost>.

¹³⁹ <http://www.bio.org/sites/default/files/legacy/bioorg/docs/files/CleanerExecSumm.pdf>.

¹⁴⁰ http://wwfeu.awsassets.panda.org/downloads/wwf_biotech_technical_report.pdf.

¹⁴¹ <http://synbiobeta.com/these-37-synthetic-biology-companies-raised-1-2b-this-quarter/>.

strands of DNA. A shift to biological data storage would eliminate the need for mining and production of silicon or precious metals. More significantly, it could dramatically reduce the need for massive data storage facilities.¹⁴² Energy consumption by data storage facilities already accounts for 2% of global GHG emissions, and is projected to surge to 14% of global emissions by 2040.¹⁴³ DARPA, the Defense Department's Advanced Research Projects Agency, is investing \$15 million in work by Microsoft, Twist Bioscience, and others to develop DNA storage.¹⁴⁴ A collaboration between the University of Washington and Microsoft successfully demonstrated their fully-automated end-to-end DNA storage process in 2019.¹⁴⁵

Biology-based parallel computing—in which biomolecules are used to test a large number of solutions to a problem simultaneously—is also being evaluated as another potential application of biotechnology. A proof of concept experiment at McGill University yielded a solution to a complex mathematical problem with less than 0.1% of the energy required to solve the problem with traditional computing.¹⁴⁶

Synthetic biology is also being deployed to accelerate the development of solutions to the COVID-19 pandemic.

In addition to applications in manufacturing, synthetic biology has the potential to provide transformative solutions for carbon dioxide removal from the atmosphere and oceans.¹⁴⁷

Synthetic biology could be applied to enhance photosynthetic efficiency of trees, or reduce respiration from soil microbes, to shift natural carbon cycles towards carbon removal. Even small improvements in these natural carbon cycles could have profound impacts, given that 120 GTCO₂e is removed from the atmosphere by terrestrial photosynthesis.¹⁴⁸ As discussed in section 2.2.2, deployment of microbial systems for carbon capture has the potential to further draw down atmospheric carbon concentrations.*

¹⁴² <http://www.scientificamerican.com/article/dna-data-storage-is-closer-than-you-think/>.

¹⁴³ <http://www.sciencedirect.com/science/article/abs/pii/S095965261733233X?via%3Dihub>.

¹⁴⁴ <http://www.wired.com/story/darpa-wants-to-build-an-image-search-engine-out-of-dna/>.

¹⁴⁵ <http://news.microsoft.com/innovation-stories/hello-data-dna-storage/>.

¹⁴⁶ Nicolau, D.V., et al. *Parallel computing with molecular motors*. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. Mar. 2016, 113(10) 2591–2596; DOI: 10.1073/pnas.1510825113. <https://www.pnas.org/content/113/10/2591.abstract>.

¹⁴⁷ <http://www.wsj.com/articles/companies-rush-to-shore-up-covid-19-testing-ahead-of-flu-season-11598788800>.

¹⁴⁸ DeLisi, C. *The role of synthetic biology in climate change mitigation*. BIOL. DIRECT. 14, 14 (2019). <https://doi.org/10.1186/s13062-019-0247-8>. <http://biologydirect.biomedcentral.com/articles/10.1186/s13062-019-0247-8>.

* **Editor's note:** there is no corresponding footnote reference for footnote 149. The reference as been incorporated herein as follows:

¹⁴⁹ Hu, G., et al. *Engineering Microorganisms for Enhanced CO₂ Sequestration*. TRENDS IN BIOTECHNOLOGY 37(5), 532–547, May 2019. <https://doi.org/10.1016/j.tibtech.2018.10.008>. [http://www.cell.com/trends/biotechnology/fulltext/S0167-7799\(18\)30304-4](http://www.cell.com/trends/biotechnology/fulltext/S0167-7799(18)30304-4).



Inscripta Case Study

The power of synthetic biology lies in its ability to make possible microbes to perform any task. SynBio innovators are applying the tools of their trade to design microbes to make plastics from plants, optimize fertilizer, capture carbon and even combat COVID-19. But unlocking the full potential of synthetic biology to take on the world's greatest challenges—including climate change—will require synbio tools to be available to every scientist or biotech start-up.

Jennifer Doudna at the University of California, Berkeley, and Emmanuelle Charpentier at the Max Planck Institute in Berlin were awarded the 2020 Nobel Prize in Chemistry for their work in developing the CRISPR gene editing technique, an approach that has revolutionized genetic engineering. But, until recently, CRISPR technology was prohibitively complex and expensive for most researchers.

In 2019, Boulder, Colorado-based Inscripta flipped the script, launching an affordable system that can perform thousands of gene edits at the push of a button.¹⁵⁰ This innovation has attracted hundreds of millions of dollars in venture capital investments and a growing list of global customers, many of whom will surely apply the technology to addressing global climate change.

2.4 Plant and Animal Biotechnology

2.4.1 Plant Biotechnology and Gene Editing

Biomass has a critical role to play in efforts to mitigate climate change. As described in Sections 2.1 and 2.2, biomass can replace a wide variety of fossil fuels and products, reducing or even sequestering carbon dioxide emissions in the process. At the same time, though, biomass can contribute to climate change if it is used unsustainably, and it will need to adapt to unprecedented growing conditions as the planet continues to warm. Biotechnology is providing important advantages on both counts, enhancing the amount of biomass that can be sustainably harvested while also improving the climate resiliency of many important crops and other plants.

Genetically modified organisms (GMO) have been used since the 1990s to make important crops such as grains and oilseeds resistant to common threats including drought and pests. These past breakthroughs mitigated climate change by reducing the amount of land required by the agriculture sector. Yields of corn per acre in the U.S. increased by approximately 60% between 1991 and 2019¹⁵¹ while those of soybeans increased by almost 50% over the same period.¹⁵² There were fewer acres of

¹⁵⁰ <http://www.inscripta.com/news/press-release-inscripta-launches-the-worlds-first-benchmark-platform-for-digital-genome-engineering>.

¹⁵¹ http://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornylid.php.

¹⁵² http://www.nass.usda.gov/Charts_and_Maps/Field_Crops/soyylid.php.

cropland in production in the U.S. in 2012 than there were in 1945,¹⁵³ despite the large increases to the U.S. and world populations that occurred over that time, due to this improved productivity.

It is important that these productivity increases continue to be made in the coming decades if agriculture's contributions to climate change are to be limited. The continued growth of the global population will create additional demand for crops at a time when growing seasons and conditions are expected to become more uncertain due to climate change.¹⁵⁴ Future food crop shortages, whether due to increased demand from population growth or crop failures caused by extreme weather, would potentially contribute to climate change by encouraging the conversion of carbon sinks such as grassland and forests to cropland, thereby releasing carbon dioxide sequestered in the biomass and soil to the atmosphere. Likewise, improvements to the resiliency of dedicated energy crops during extreme weather events will improve both climate and energy security by enabling their utilization as low-carbon bioenergy and bioproduct feedstocks to increase.

Biotechnology is also enabling the expansion of existing bioenergy pathways. The U.S. is currently undergoing a rapid increase to its renewable diesel production capacity that will result in additional demand for lipid feedstocks.¹⁵⁵ Work is underway to utilize fast-growing and/or resilient undomesticated biomass such as *Jatropha* and microalgae as biofuels feedstocks. Both forms of biomass can grow on marginal lands while limiting the disturbance of existing carbon sinks. However, their utilization as bioenergy has historically been constrained by poor crop yields outside of the laboratory. Cell engineering has enabled the necessary yields for commercial production to be achieved in microalgae,¹⁵⁶ and research is actively underway to improve *Jatropha* as a feedstock.¹⁵⁷ Biotechnology is also being utilized to expand the supply of lipid feedstocks by enabling the conversion of waste products, as is described in Section 1.1.1.

The development of the CRISPR gene editing technique over the last decade has already led to notable breakthroughs in the effort to mitigate climate change. In addition to microalgae,¹⁵⁸ multiple strains of bacteria, yeast, and filamentous fungi have been modified via the CRISPR technique to increase the yields and types of products produced via fermentation.¹⁵⁹ The CRISPR technique has also been employed with dedicated energy crops such as Miscanthus, poplar, switchgrass, and willow to refine specific traits that improve both resiliency and yields, although the higher complexity of these forms of biomass and regulatory uncertainty about their possible status as genetically modified organisms have slowed progress.¹⁶⁰ Finally, CRISPR gene editing has also been employed to improve the resiliency and carbon efficiency of first-generation bioenergy feedstocks such as corn¹⁶¹ and soybeans under the types of extreme weather conditions that are expected to occur with growing frequency as a result of climate change.¹⁶²

¹⁵³ http://www.ers.usda.gov/webdocs/DataFiles/52096/Cropland_19452012_by_state.xls?v=26.3.

¹⁵⁴ <http://www.fao.org/3/I9553EN/i9553en.pdf>.

¹⁵⁵ <http://www.fuelsinstitute.org/getattachment/Research/Biomass-Based-Diesel-A-Market-and-Performance-Analysis/Biomass-Based-Diesel-Executive-Summary.pdf?lang=en-US>.

¹⁵⁶ Ajjawi, I., Verruto, J., Aquí, M., et al. Lipid production in *Nannochloropsis gaditana* is doubled by decreasing expression of a single transcriptional regulator. *NAT. BIOTECHNOL.* 35, 647–652 (2017). <http://doi.org/10.1038/nbt.3865>. <http://www.nature.com/articles/nbt.3865>.

¹⁵⁷ S.A. Caesar, S. Ignacimuthu, *Applications of biotechnology and biochemical engineering for the improvement of Jatropha and Biodiesel: A review*, *RENEWABLE AND SUSTAINABLE ENERGY REVIEWS*, 15(9), 2011, 5176–5185, ISSN 1364–0321, <http://doi.org/10.1016/j.rser.2011.07.039>. <http://www.sciencedirect.com/science/article/abs/pii/S1364032111002796>.

¹⁵⁸ Shin, S.E., Lim, J.M., Koh, H., et al. CRISPR/Cas9-induced knockout and knock-in mutations in *Chlamydomonas reinhardtii*. *SCI. REP.* 6, 27810 (2016). <http://doi.org/10.1038/srep27810>. <https://www.nature.com/articles/srep27810>.

¹⁵⁹ Paul D. Donohoue, Rodolphe Barrangou, Andrew P. May, *Advances in Industrial Biotechnology Using CRISPR-Cas Systems*, *TRENDS IN BIOTECHNOLOGY*, 36(2), 2018, 134–146, ISSN 0167–7799, <https://doi.org/10.1016/j.tibtech.2017.07.007>. <http://www.sciencedirect.com/science/article/abs/pii/S0167779917301877>.

¹⁶⁰ <http://onlinelibrary.wiley.com/doi/full/10.1111/gcbb.12566>.

¹⁶¹ <http://onlinelibrary.wiley.com/doi/full/10.1111/pbi.12603>.

¹⁶² Doane Chilcoat, Zhan-Bin Liu, Jeffrey Sander, *Chapter Two—Use of CRISPR/Cas9 for Crop Improvement in Maize and Soybean*, Editor(s): Donald P. Weeks, Bing Yang, *Progress in Molecular Biology and Translational Science*, Academic Press, Volume 149, 2017, 27–46, ISSN 1877–1173, ISBN 9780128117439, <https://doi.org/10.1016/bs.pmbts.2017.04.005>. <http://www.sciencedirect.com/science/article/pii/S1877117317300650>.

Biotechnology is also being used to develop plant varieties, including apples and potatoes, that extend shelf life and avoid cosmetic issues, such as browning or spotting, that cause consumers to throw away food.¹⁶³

Biotechnology has enabled major improvements to the yields, land-use efficiency, and resiliency of important U.S. bioenergy feedstocks in recent decades. Continued biotechnology advances will need to occur in the near future if these improvements are to be maintained, let alone expanded upon. Climate change is expected to result in extreme weather events that are greater in frequency, magnitude, and duration, and these will threaten production of both the feedstocks that have contributed heavily to U.S. bioenergy and bioproducts to date as well as the plant biomass that slows the rate of atmospheric GHG concentration increase. The development of the CRISPR gene editing technique, along with continued advances in more traditional genetic engineering processes, will do much to enhance the ability of biomass to mitigate fossil fuel consumption and GHG emissions.

2.4.2 Animal Biotechnology

In addition to the on-farm applications addressed in previous sections, biotechnology is also being leveraged to improve the carbon efficiency of animal agriculture through genetic engineering of the animals themselves. The biotech AquaBounty salmon, for example, requires 25% less feed than traditional Atlantic salmon. The combination of lower inputs and a closed-loop, land-based production system that can be deployed much closer to U.S. customers is estimated to result in a carbon footprint that is 96% lower than traditional farmed salmon.¹⁶⁴

Biotech tools are also being used to improve fertility, increase production efficiency, and reduce disease in cattle, swine and other animals, further reducing waste in animal production. Scientists in the U.S. are employing genomic tools to improve the ability of cattle to tolerate higher temperatures while maintaining their growth.¹⁶⁵ Heat stress, which is an increasing problem in the livestock sector due to climate change, limits the production of animal protein, and heat-tolerant cattle will be better able to maintain their production efficiency as temperatures increase. The genetic sequencing of dairy cattle has likewise led to efforts to improve the efficiency of milk production via genetic engineering.¹⁶⁶ Livestock are a major source of the potent greenhouse gas methane, causing improvements to the efficiency of protein and milk production to have an outsized impact on GHG emissions.

3 Climate Impact Analysis

3.1 Issues in LCA for Biotechnology

Successfully mitigating the impacts of climate change will involve simultaneous transformational shifts across technology, policy and business. Effectively planning, managing and evaluating these shifts will require an equally profound shift in how we track and account for carbon. Life Cycle Analysis (LCA) is widely regarded as the most appropriate and effective way of evaluating the carbon impacts of products and processes in the complex, modern economy. LCA is an analytical technique in which all inputs, outputs and impacts of a product or process are tracked and accounted for through its full life cycle. This includes the materials used to make things, the energy and associated emissions from transporting and processing them, and what happens at the end of a product's useful life. LCA is especially important and complex when biological systems are involved, since they introduce a significant degree of uncertainty; external conditions, pathogens, or changes in surrounding ecosystems can all impact the productivity of any organism.

There are three main approaches to LCA: attributional LCA, consequential LCA and economic input-output (EIO) LCA. Attributional LCA focuses on the direct actions taken by a producer in order to make a product; all of the energy or materials consumed during production would be captured by an attributional LCA, for example. Consequential LCA, in contrast, focuses on comparing the world with the product in question to a hypothetical world without it; it not only captures all the materials used in production, but also how the product and its supply chains affect markets or other products. EIO LCA uses the flow of money through systems to estimate environmental impacts. For example, an EIO-LCA may use the average carbon emissions per dollar of revenue in the petrochemical industry to estimate the impacts of petrochemical inputs to other products. The accuracy of EIO LCA suffers because its impact-per-dollar estimates are, by necessity, industry averages or ab-

¹⁶³ <http://www.forbes.com/sites/gmoanswers/2016/11/18/gmos-help-reduce-food-waste/#710a513943bc>.

¹⁶⁴ <http://aquabounty.com/sustainable/>.

¹⁶⁵ <http://www.digitaltrends.com/cool-tech/genetic-engineer-heat-resistant-cows/>.

¹⁶⁶ <http://www.wpr.org/how-we-produce-more-milk-fewer-cows>.

stract estimates. It is best used for high level, market-wide estimates rather than evaluating individual products or services. Attributional LCA is simpler than consequential, especially for most manufacturing processes, but consequential LCA is widely viewed as a more accurate technique because it can account for indirect effects, such as those that occur because of changes in commodity prices or disrupted supply chains. Attributional LCA would overlook the impact of new strains of crop on agricultural markets, for example, whereas consequential approaches may be able to account for these.

The science of LCA has rapidly evolved over recent decades; however, a number of critical challenges remain pertaining to LCA in biotech:

Lack of Data on Critical Inputs or Processes—Like most modeling techniques, the results of an LCA are only as good as the input data. In many cases, critical elements needed to understand the impacts of a product or process are unavailable, due to insufficient fundamental research, protections on proprietary information, or changes in technology. One common example is that many biotechnological manufacturing systems use enzymes or catalysts. Data on the energy or materials used to make these inputs is typically considered proprietary business information, which renders many LCAs on biotech products uncertain, at best. In other instances, the only source of data on an industrial practice is extrapolated from textbooks or older research on the subject, often overlooking recent technological developments in the field.

Inadequate tracking of existing markets or systems—Consequential LCA's value derives largely from its ability to assess indirect effects. A common example of an indirect effect is Indirect Land Use Change (ILUC), which occurs when a system uses an agricultural product as its input, such as a biofuel made from soybean oil. While the biofuel itself may release little carbon during its production or use, the gallons of soybean oil which went into the biofuel would have otherwise been consumed elsewhere, such as in food products, animal feed or cosmetics. Those previous consumers must now find alternative sources of vegetable oil on the open market, driving up prices, which may result in clearing land to grow more oilseed crops. This land clearance is ILUC, the acres being cleared may not be used to produce biofuel, but they are cleared because of biofuel. Consequential LCA often requires tracking markets, land use, or behavior over a long period of time in order to establish "normal" behavior in that system; at present these data are often not collected, or are proprietary.

Multiple LCA Methods—LCA is at its heart a scientific exercise, but parts of it require subjective judgment, like decisions about how to define system boundaries or allocate impacts between multiple products. There may be multiple valid answers to these judgment questions. For example, in the U.S. almost all ethanol production takes in corn and produces ethanol as well as the solids left behind after processing, which are typically sold as a high-protein animal feed known as "distiller's grains". The question for LCA practitioners is how much of the energy used in the process is assigned to the ethanol product *vs.* the distiller's grains. There are several methods for doing this, such as assigning based on the relative mass, energy content or monetary value of each product, but there is no objectively right or wrong answer about which method should be selected; it's a judgment call. When true objectivity may be impossible to attain, consensus can be a reasonable substitute. Government, industry and academic stakeholders can mutually agree on answers to questions like this to ensure that at the very least, LCAs can be made on the basis of similar assumptions, so that they can be effectively compared against each other.

Ultimately, the analytical tools which support LCA will need to evolve in parallel with the biotech industry as it rises to meet the challenge of climate change. Industry groups can help support the continued development of LCA data by supporting basic research, agreeing to make more data on inputs and outputs from manufacturing available to researchers, and continuing to support and publish LCA studies of their products. Luckily, LCA shares a common characteristic of many sciences: as knowledge accumulates, future studies become easier and more powerful. Groups of companies that use similar processes to make a common product can aggregate their data together to publish industry averages for energy or materials use, thereby protecting their proprietary business information while improving analysts' ability to research. LCA data developed for one study is often used in subsequent ones; students who study real-world examples emerge better prepared to contribute in real-world work; and as more studies are published and critiqued, consensus emerges. While successfully mitigating climate change will require significant new investments in cleaner technologies and production systems, complementary investments must occur in evaluation and analysis of these systems to ensure that the LCA tools necessary to inform the next decades' decisions evolve as well.

Keys to Maximizing Biotech's Potential to Reduce GHG Emissions

- GHG accounting needs to be based on life cycle analysis, and include indirect effects such as ILUC. Industry groups can help by making data available to regulators and researchers; IP can be protected by aggregating or anonymizing the data.
- Most biotech solutions will require massive amounts of feedstock, finding ways to produce this more efficiently will always be useful.
- Using waste biomass to produce energy can make a real difference, but keeping organic carbon in solid form as long as possible maximizes GHG benefits.
- Biofuels may not be zero-carbon, but they can be very low carbon and the scale of transportation means making them sustainable and scalable is critically important.
- Carbon capture and sequestration will be necessary for success, but as a complement to reducing emissions, not a replacement.

3.2 GHG Mitigation Potential on National (U.S.) Scale

3.2.1 Producing Sustainable Biomass Feedstock

Biomass is one key to de-carbonizing the U.S. economy because it leverages the capacity of photosynthesis to remove carbon from the atmosphere and convert it to carbohydrates, which can be utilized for their embodied energy, carbon, or both. In theory, biomass can be a carbon-neutral resource, but in practice the situation is much more complex. Growing biomass, especially at commercial scales, typically requires fertilizer and other inputs which have associated emissions. Depending on how the land being used for biomass is treated, there may be additional sources, or sinks, of carbon in the soil. Understanding the emissions impacts of biomass across its full life cycle requires understanding the ecosystems, carbon and nutrient cycles at play where it's grown. Given the potential for biomass production to result in significant and unexpected emissions of carbon, a risk-averse approach is prudent, but the immense potential of biofuels, bioenergy and bioproducts argues in favor of utilizing these resources where available. While there is significant uncertainty around the emissions associated with any source of biomass, there are a few useful rules of thumb:

1. **Biomass can be low-carbon but is almost never zero-carbon.** While the carbon embodied in plant matter was taken from the atmosphere, and therefore has a minimal on climate change, there are numerous sources of climate-forcing emissions from fertilizer, irrigation, transport, processing and changes in the soil.
2. **Biobased products can reduce GHG emissions when substituted for high-carbon ones, especially those relying on fossil fuels.** GHG reductions are realized when low-carbon biobased products displace higher-carbon ones. Without that displacement, there is minimal environmental benefit. Substitution, by itself, is no guarantee of benefit, a few biobased products are more carbon-intensive than their fossil equivalents.
3. **Alternative uses and indirect effects must be considered.** Accurately assessing biomass carbon emissions typically requires considering indirect effects like ILUC, as well as what would have happened in absence of the biomass production. A cultivation system may increase soil carbon, but should only be credited for these increases if this increase is greater than what would have happened otherwise.
4. **The labels “waste” and “residue” can be misleading.** In theory, wastes or residues have no value, and cause emissions from their use. In truth, many of these materials are used in some fashion, sometimes by sustainable bioproduct systems, sometimes more traditionally, as animal bedding or returned to the soil; these uses must be considered.

Climate policy has largely overlooked emissions from agriculture to date, in part because of the complexity of the system and concern about financial impacts on farmers and rural communities. With new focus on sustainable and regenerative agriculture, however, a window of opportunity is opening to achieve a win-win scenario for agricultural producers: utilize the latest science to find opportunities to use agriculture as a tool to reduce emissions, and reward farmers for the carbon benefits they provide.

Agriculture in the U.S. emitted GHGs equivalent to about 658.6 million metric tons of carbon dioxide in 2018, roughly 10% of the U.S. total.¹⁷⁰ About 94% of this

¹⁷⁰ <http://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>.

was emitted from agricultural soils or livestock (direct or “enteric” emissions from animals as well as manure management). Additional emissions come from the production of ammonia, which is a primary input for most fertilizers. With continued population growth as well as the emergence of the bioeconomy, the agricultural sector will be called upon to produce even more food, fodder, fiber and feedstock. Meeting this challenge while reducing emissions will require the rapid deployment of advanced biotechnology in several critical areas including:

Optimizing fertilizer use through new crop strains or increased nitrogen fixation

Nitrogen is often a limiting factor in agricultural yields. The “Green Revolution,” which massively increased agricultural production and allowed rapid population growth during the 20th Century, was largely facilitated by the development of the Haber Process for producing ammonia from natural gas. Ammonia production supports 50–75% of global fertilizer production and is responsible for more than 1% of global GHG emissions.¹⁷¹ Removing biomass from fields, whether it’s crops for consumption or residues for bioenergy, takes some of that nitrogen along with it, which must be replaced. Biotech can improve plants’ efficiency at utilizing nitrogen, or adding genes from nitrogen-fixing organisms to allow them to produce their own. Using modern biotechnological tools to optimize the use of synthetic fertilizers allows growers to consume less of them, which could help U.S. farmers cut back on 15–20 million metric tons of carbon associated with its production, about as much as fueling 3–4 million cars for a year.¹⁷²

Reducing nitrous oxide emissions from soil

Nitrogen fertilizers enhance plant growth, but many soil microbes convert fertilizer nitrogen to nitrous oxide (N₂O), a greenhouse gas up to 298 times more potent than carbon dioxide. In 2017, nitrous oxide emissions from agricultural soil accounted for 266 million metric tons of carbon dioxide equivalent in the U.S. Relatively low-tech interventions, such as using less volatile fertilizers and applying them more efficiently could reduce nitrous oxide emissions by 30–100 million metric tons annually.¹⁷³ Analyses of chemical inhibitors indicate a potential to cut nitrous oxide emissions by over 40%, and there are promising lines of research which would integrate production of these inhibitors into a plant’s root system.¹⁷⁴ By combining all of these approaches, nitrous oxide emissions could be reduced, by well over 150 million metric tons of carbon equivalent, or as much as shutting down 32 U.S. coal power plants for a year.

Enhancing soil carbon retention through expanded root growth

Despite its mundane appearance, soil is a complex and dynamic environment, in which carbon and nutrients enter and leave through multiple avenues and cycle through plants, animals, microbes and fungi. There are several promising approaches by which the soil carbon system could be encouraged to retain more carbon in solid form, rather than being decomposed and released to the atmosphere. Root growth is a major pathway for soil carbon accumulation, as plants take carbon from the atmosphere and convert it to solid plant matter, moving it underground as roots grow. Engineering crops to have larger and deeper root systems expands this pathway and could sequester carbon by 200 to 600 million metric tons per year if widely deployed, though this number is highly uncertain due to the relative immaturity of this technology.¹⁷⁵

Reducing methane emissions from livestock

As population and incomes increase globally, so does the consumption of meat and dairy products. This leads to an increase in livestock numbers and the associated emissions. Livestock, especially cattle, are a major source of methane, from enteric sources (*i.e.*, burps) as well as from decomposing manure. Several novel feed additives have been proposed which may be able to reduce the amount of methane emit-

¹⁷¹ *Green Chem.*, 2020, 22, 5751–5761. <https://doi.org/10.1039/D0GC02301A>. <http://pubs.rsc.org/en/content/articlelanding/2020/gc/d0gc02301a#divAbstract>.

¹⁷² Estimate based on EPA GHG emission inventory. Quantification is imprecise because emissions from energy consumption during ammonia production are aggregated with multiple other uses.

¹⁷³ http://ec.europa.eu/environment/enveco/climate_change/pdf/nitrous_oxide_emissions.pdf.

¹⁷⁴ Norton Jeanette, Ouyang Yang, *Controls and Adaptive Management of Nitrification in Agricultural Soils*, *FRONTIERS IN MICROBIOLOGY*, 10, 2019, DOI.10.3389/fmicb.2019.01931, ISSN = 1664–302X. <http://www.frontiersin.org/articles/10.3389/fmicb.2019.01931/full>.

¹⁷⁵ http://arpa-e.energy.gov/sites/default/files/documents/files/Revised_Final_Report_to_ARPA_Bounding_Analysis.pdf.

ted without negatively affecting animal health or reducing yields. DSM has announced a cattle feed supplement that claims to reduce methane emissions by 30%,¹⁷⁶ while other compounds under investigation—often derived from red seaweed—may be able to provide 80% reductions or greater in methane emissions.^{177–178} While numerous technological and policy hurdles remain, widespread deployment of feed technologies like these could reduce emissions from livestock production by 50–140 million metric tons, or roughly one to three times the annual emissions from the state of Oregon.

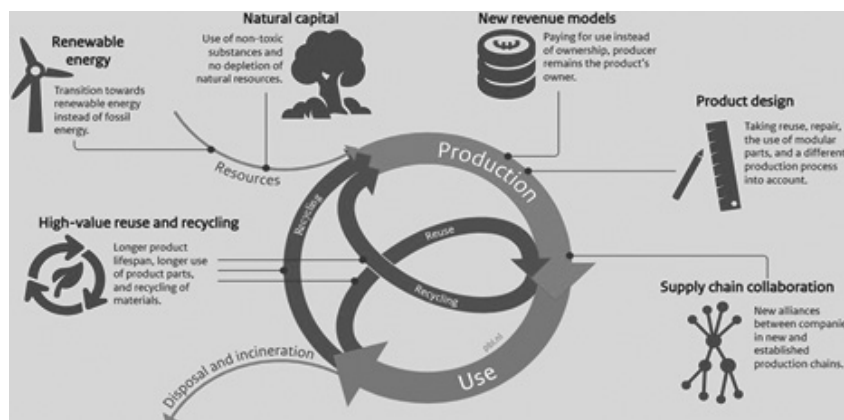
3.2.2 Empowering Sustainable Production

Empowering Sustainable Production

Modern economies produce a staggering amount of things. From millions of printed silicon microcircuits in electronics to billions of tons of concrete and steel, production of physical objects is a hallmark of human society. As we seek to limit the damage caused by climate change, a new focus on sustainability must enter the conversation about how we make things. Luckily, advances in technology have presented a number of opportunities to do just this, by developing more efficient and lower-emission alternatives to traditional industrial techniques. Biotechnology can continue this process by leveraging the affinity biological processes have for working within a circular economy.

Green is the New Black

Elements of a circular economy.



Source: PBL Netherlands.¹⁷⁹

Traditionally, once materials were extracted, their life was a one-way trip that ended in a landfill. As industries become more aware of the need to reduce emissions, it is becoming clear that reuse and recycling of materials and energy is an essential tool for sustainability. Biotechnology is well-positioned to succeed in a sustainable circular economy because it is built on a foundation of biological carbon cycling. Working with natural systems which have evolved to capture and re-use carbon and nutrients, biotechnology firms can expand these processes to commercial scale, replacing energy- and emission-intensive extractive industries with low-impact circular ones.

Turning Carbon into Products

¹⁷⁶ <http://www.dsm.com/corporate/markets/animal-feed/minimizing-methane-from-cattle.html>.

¹⁷⁷ Roque B.M., Venegas M., Kinley R.D., de Nys R., Duarte T.L., Yang X., et al. (2021) Red seaweed (*Asparagopsis taxiformis*) supplementation reduces enteric methane by over 80 percent in beef steers. PLOS ONE 16(3): e0247820. <https://doi.org/10.1371/journal.pone.0247820>. <http://www.biorxiv.org/content/10.1101/2020.07.15.204958v1.abstract>.

¹⁷⁸ Breanna M. Roque, Joan K. Salwen, Rob Kinley, Ermias Kebreab, Inclusion of *Asparagopsis armata* in lactating dairy cows' diet reduces enteric methane emission by over 50 percent, JOURNAL OF CLEANER PRODUCTION, 234, 2019, 132–138, ISSN 0959–6526 <https://doi.org/10.1016/j.jclepro.2019.06.193> <http://www.sciencedirect.com/science/article/abs/pii/S0959652619321559>.

¹⁷⁹ <http://themasites.pbl.nl/o/circular-economy/>.

U.S. industry emits over 800 million metric tons of carbon per year from the combustion of fossil fuels; at present almost all of this goes into the atmosphere, representing over $\frac{1}{8}$ of national emissions. Numerous projects have already sought to demonstrate the feasibility of capturing this carbon and sequestering it underground, or using it for enhanced oil production, but a number of innovative processes are emerging to use the carbon as a raw material for other products, including polymers, carbon fiber, chemicals, nanomaterials or fuels using a variety of methods. Conventional carbon capture systems can typically pull 80–90% of the carbon dioxide out of exhaust from combustion systems,¹⁸⁰ which means that there is a potential resource of hundreds of millions of tons of carbon dioxide which could potentially be used to make new products. The limiting factor will probably be the availability of processes to utilize the carbon and markets for the resulting products.

Bioplastics have been one of the first large-scale applications of biotechnology for the purpose of improving industrial sustainability. Dozens of alternative biobased polymers have entered the market, demonstrating the capacity to replace fossil carbon in a variety of applications and, in many cases, offering more sustainable recycling or reuse options than traditional equivalents. Around 1% of U.S. GHG emissions come from producing plastics. Switching from fossil-based plastics to corn-based biopolymers could reduce emissions by 0.6kg–1.4kg of CO₂ per kilogram of plastic.^{181*} Widely applied, this could reduce emissions from plastic production by about 25%, totaling 16 million metric tons of CO₂ per year. Switching from corn to cellulosic feedstocks, like switchgrass, Miscanthus, or corn stover could double the emission benefits.¹⁸³

Organic Waste Utilization

Researchers and policy makers are becoming increasingly aware of the need to more efficiently use materials in industry. This is particularly true of organic waste, like food scraps, agricultural residue and un-recyclable wood products, because they not only require fertilizer and other inputs to make those materials, but as they decompose, also emit carbon dioxide or, worse, methane. Anaerobic digestion (AD) is a well-understood technology for converting organic waste into energy, while recovering nutrients that can be returned to the soil. When decomposition happens in the absence of oxygen, microbes convert organic waste into biogas—a mixture of methane, carbon dioxide, water vapor and other trace components. This can be cleaned up to yield Renewable Natural Gas (RNG), which is mostly methane and functionally equivalent to fossil natural gas. AD produces not only this valuable product, but also solid digestate, which is very similar to compost and can be used as a beneficial soil amendment. By capturing the methane which would otherwise have been released into the atmosphere, AD further reduces the GHG footprint of organic waste disposal; in some cases the effect of preventing uncontrolled releases of methane can be so great that the resulting RNG is effectively carbon-negative, when evaluated by LCA.¹⁸⁰ Widespread deployment of RNG systems at landfills, wastewater treatment plants, livestock yards and other organic waste hotspots could displace enough fossil natural gas to offset 40–75 million metric tons of carbon dioxide emissions. Using agricultural residue or wood waste could add another 12–40 million metric tons, though these resources may have other competing uses in a low-carbon economy.¹⁸⁴

Cleaner Buildings

There are opportunities to build sustainable, circular material cycles into more than just consumer products. Carbon can be pulled out of the atmosphere and used to make the very buildings, roads, and cities we live in. Wood, long thought of as a traditional building material, is enjoying new attention as a low-carbon solution for future construction. Since wood pulls carbon from the air as it grows, it represents a very stable and durable removal mechanism for atmospheric carbon, which will remain sequestered as long as the wood remains solid. Engineered wood

¹⁸⁰ <http://doi.org/10.1155/2014/828131>. <https://www.hindawi.com/journals/tswj/2014/828131/>.

¹⁸¹ *Environ. Sci. Technol.* 2016, 50, 6, 2846–2858. <https://doi.org/10.1021/acs.est.5b05589>. <http://pubs.acs.org/doi/10.1021/acs.est.5b05589>.

* **Editor's note:** there is no corresponding footnote reference for footnote 182. The reference as been incorporated herein as follows:

Daniel Posen, *et al.* 2017 *Environ. Res. Lett.* 12 034024. <http://iopscience.iop.org/article/10.1088/1748-9326/aa60a7>. It should be noted that this study found greater GHG benefits from plastic production using renewable energy than feedstock conversion, however these are not mutually exclusive.

¹⁸³ <http://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>.

¹⁸⁴ <http://gasfoundation.org/2019/12/18/renewable-sources-of-natural-gas/>.

products, including cross-laminated timber, fiber or polymer reinforced products, or wood composites can provide strength and durability previously thought possible only from metal. A recent study of engineered wood products found that they can reduce GHG emissions by 20% when substituted for fabricated metal, 25% for concrete and 50% for iron or steel. Engineered wood has been used to build several multistory demonstration buildings to show that high-rise construction is possible without conventional materials. A five-story wood building stores about 26 lb of carbon per square foot.¹⁸⁵ With over 350 million square feet of multifamily housing constructed in the U.S. in 2019, the potential carbon savings could be substantial.¹⁸⁶

Another opportunity to find uses for carbon dioxide is in cement, which is currently one of the largest sources of greenhouse gas emissions in the world and was responsible for over 40 million tons of emissions in the U.S.¹⁸⁷ Researchers have been investigating alternative formulations of cement, which utilize carbon dioxide during production or absorb it from the air as it cures. By integrating these techniques with renewable energy to power the process, it is possible to end up with carbon-neutral concrete turning some infrastructure projects into net carbon sinks.

3.2.3 Developing Lower-Carbon Products

If humanity is to successfully avoid the worst impacts of climate change, it will have to find lower-carbon substitutes for many of its most important products. No product exemplifies this challenge better than transportation fuel. The ready availability of reliable, high-speed transportation is a foundational element of life in the U.S.; it is the lifeblood of modern supply chains and personal lifestyle. The U.S. is by far the biggest consumer of oil in the world, consuming almost 20 million barrels of crude oil per day, and processing it through more than 130 refineries into a wide range of fuels and petrochemical products, most importantly gasoline and diesel.¹⁸⁸ The emissions from vehicle tailpipes, plus the production and refining of petroleum total over 1,900 million metric tons of carbon dioxide equivalent each year, almost 30% of the U.S. total or about as much as Germany and Japan, combined.¹⁸⁹

Neither the U.S. nor any other nation can halt climate change while depending on petroleum to fuel its transportation system. There is no single solution to this problem, a full portfolio of tools is needed. Light-duty vehicles, like cars, trucks, and SUVs consume the majority of petroleum in the U.S.; there is consensus within the transportation research community that replacing these with battery electric vehicles, charged on a grid dominated by renewables or other carbon-free sources, will be the primary way of reducing these emissions, with mass transit and other measures also playing a role. Many of the medium and heavy duty vehicles, like box trucks, delivery vans and some tractor-trailers will also be powered by electricity from batteries, or possibly hydrogen fuel cells.¹⁹⁰ There are some types of transportation, however, for which energy-dense liquid fuels will be much harder to replace. Aviation is the biggest of these; the U.S. consumed over 18 billion gallons of jet fuel in 2019,¹⁹¹ and while the industry will take some time to recover from the ravages of COVID-19, commercial air travel will continue to factor in global transportation. Some marine applications, long-haul trucking, military operations, backup and emergency power, and specialized vehicles may also need liquid fuels. The U.S. currently consumes around 15 billion gallons of ethanol per year, and around 2.5 billion gallons of biomass-based diesel substitutes including biodiesel and renewable diesel. The vast majority of ethanol is made from corn, while around [] of U.S. biomass-based diesel is made from soybean or canola oil, with the rest coming from waste oil or byproducts.¹⁹²

Most of the biofuels currently used in the U.S. reduce carbon emissions when they displace petroleum fuels. Typical corn ethanol emits about 30% less carbon than gasoline, when the full life cycle of both products are considered, and typical biodiesel or renewable diesel from soybean oil reduces carbon by 40–50% over the full life cycle.¹⁹³ With domestic consumption of these fuels measured in the billions of

¹⁸⁵ <http://www.pik-potsdam.de/en/news/latest-news/buildings-can-become-a-global-co2-sink-if-made-out-of-wood-instead-of-cement-and-steel>.

¹⁸⁶ <http://www.census.gov/construction/charts/highlights.html>.

¹⁸⁷ <http://www3.epa.gov/ttnchie1/conference/ei13/ghg/hanle.pdf>.

¹⁸⁸ <http://www.eia.gov/petroleum/refinerycapacity/>.

¹⁸⁹ <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>.

¹⁹⁰ http://www.caletc.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf.

¹⁹¹ <http://www.transtats.bts.gov/fuel.asp?pn=1>.

¹⁹² <http://www.eia.gov/biofuels/update/>.

¹⁹³ Based on CARB default values under the LCFS. It should be noted that the GHG reductions from current biofuels are uncertain and the subject of considerable debate, the values pre-

gallons each year, these emission reductions represent millions of tons of avoided carbon. *The use of biofuels is estimated to have reduced U.S. transportation sector GHG emissions by 980 MMT CO₂ from 2009–2020.*¹⁹⁴ *This is equivalent to taking roughly 16 million vehicles off the road, or 19 coal-fired power plants offline, for that 13 year period.*¹⁹⁵

First-generation biofuels alone cannot meet the challenge of near-complete de-carbonization by mid-century, but have achieved critical near-term reductions as other low-carbon transportation solutions are being developed; and they form an important technological foundation for the next generation of low-carbon fuels. The biotech industry can leverage its capacity to innovate to help advance biofuels in two main ways, reducing emissions from current production and developing zero, or near-zero carbon fuels.

Reducing Emissions From Existing Fuels

The U.S. fuel ethanol industry operates around 200 production facilities spread across the U.S., representing tens of billions of dollars in capital investment and thousands of jobs.¹⁹⁶ While corn-based ethanol may struggle to achieve the very low carbon levels needed in the long-term future, it has a critical role to play over the next few decades. As long as there is petroleum-based gasoline being consumed in the world, there will be value in producing a substitute that is 30% less carbon intensive; and the evidence suggests that the industry can reduce emissions even further. Driven in large part by the adoption of carbon intensity standards like California's LCFS, the ethanol industry has improved the efficiency of its facilities and found new ways to recover valuable co-products. Doubling down on these processes can continue to reduce emissions.

Improved efficiency of ethanol production facilities has reduced the energy inputs needed per gallon of output by a few percent per year,¹⁹⁷ and the industry has begun to utilize cellulosic processing technology to convert the previously indigestible corn kernel fiber into ethanol, increasing the yield from each bushel of corn by 3–4%. Improved crop yields and strains optimized for fuel production also help reduce the emissions associated with each unit of fuel. Incremental improvements like these seldom grab headlines, but on the scale of U.S. ethanol production, they add up. Each 1% improvement in average carbon intensity, across the entire U.S. ethanol industry results in around 800,000 metric tons of avoided carbon dioxide emissions each year.¹⁹⁸ Similarly, there are opportunities to improve the efficiency of biodiesel and renewable diesel production, the latter of which anticipates almost a six-fold increase in U.S. production capacity over the next 5 years.¹⁹⁹ More efficient catalysts and purification systems can reduce the need for energy or reagent inputs, driving GHG emissions down even further. If the U.S. renewable diesel industry grows as anticipated, each 1% improvement in efficiency yields around 170,000 metric tons of avoided emissions each year.²⁰⁰

sented here are conservative estimates. <http://ww2.arb.ca.gov/resources/documents/substitute-pathways-and-default-blend-levels-lcfs-reporting-specific-fuel>.

¹⁹⁴ Unnasch, S. and D. Parida (2021) *GHG Reductions from the RFS2—A 2020 Update*. Life Cycle Associates Report LCA. LCA.6145.213.2021 Prepared for Renewable Fuels Association. http://ethanolrfa.org/wp-content/uploads/2021/02/LCA-RFS2-GHG-Update_2020.pdf.

¹⁹⁵ <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

¹⁹⁶ <http://www.eia.gov/petroleum/ethanolcapacity/>.

¹⁹⁷ Flugge, M.; Lewandrowski, J.; Rosenfeld, J.; Boland, C.; Hendrickson, T.; Jaglo, K.; Kolansky, S.; Moffroid, K.; Riley-Gilbert, M.; and Pape, D., "A Life-Cycle Analysis of the Greenhouse Gas Emissions of Corn-Based Ethanol" (2017). Publications from USDA-ARS/UNL Faculty. 1617. <http://digitalcommons.unl.edu/usdaarsfacpub/1617>. https://www.researchgate.net/profile/Marybeth-Riley-Gilbert2/publication/312621455_A_Life-Cycle_Analysis_of_the_Greenhouse_Gas_Emissions_of_Corn-Based_Ethanol/links/5894ba9e4585158b76e95397/A-Life-Cycle-Analysis-of-the-Greenhouse-Gas-Emissions-of-Corn-Based-Ethanol.pdf

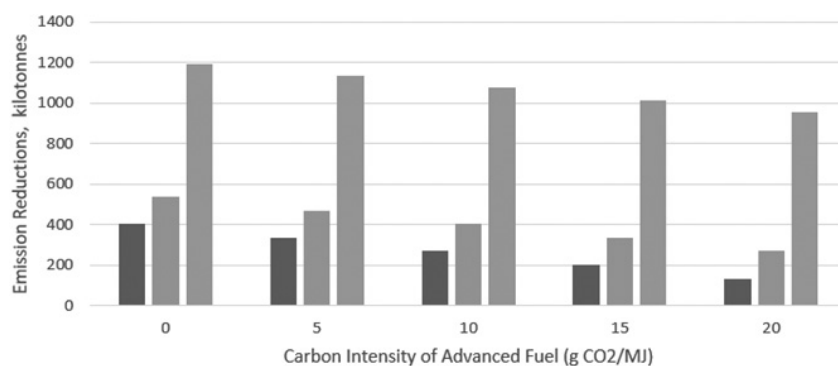
¹⁹⁸ Based on an assumed 15 billion gallon ethanol industry and 68 g CO₂e/MJ average carbon intensity for finished ethanol, a value representative of typical Midwest corn ethanol production.

¹⁹⁹ <http://adi-analytics.com/2020/02/10/regulations-to-drive-u-s-renewable-diesel-capacity-growth-through-2025/>.

²⁰⁰ Based on an assumed 2.5 billion gallon per year renewable diesel industry and 54 g/MJ carbon intensity for finished renewable diesel, a value representative of current soybean oil based production.

Figure 2: Each 100 million gallons of advanced, low carbon biofuel has the potential to displace as much as 1 million tonnes of carbon, if it displaces petroleum fuels, or over 200,000 tonnes if it displaces current-generation biofuels.

Potential Emissions Reductions From 100 Million Gal. of Advanced Biofuel



Displaced Fuel: ■ Waste-Based Renewable Diesel ■ Cellulosic Diesel ■ Petroleum Gasoline
Source: California Air Resources Board.

Developing Zero or Near-Zero Carbon Fuels

De-carbonizing transportation will require a new generation of fuels. Cellulosic biofuels, which use inedible plant matter as their feedstock, offer the potential for much deeper reductions in carbon emissions.²⁰¹ Cellulosic biofuels have been on the horizon for many years, but technological and supply chain challenges sank several early projects. A new wave of cellulosic production facilities, promising 60–80% lower emissions than conventional fuels are under development and if early projects are successful, could be the start of a new, multi-billion gallon per year industry. One key difference between the first wave of cellulosic production facilities and this one is that rather than breaking down cellulose into sugars and fermenting them into ethanol like you would with starch, these facilities use heat to convert biomass into a gas, or light oils, then process those into finished fuels. There are numerous opportunities to further refine the process, however, by making more selective and durable catalysts, or providing feedstock which improves yields, is more easily handled or requires less pre-treatment.

Algae or other microbes may offer the greatest potential to deliver fuels that approach or achieve carbon neutrality. Algae can be grown using wastewater or even exhaust gas as their primary source of nutrients and can be tailored to produce highly desirable oils or carbohydrates at extremely high theoretical yields. Attempts to scale these systems up have run into problems with pathogens, competition from wild microbes and finding efficient methods to separate desired products from water and cell mass. If algal fuels, or other advanced synthetic fuels could be commercialized, they offer the potential for billions of gallons of a product that is compatible with existing vehicles and infrastructure. *Figure 2*, shows the potential emissions reductions from 100 million gallons of a hypothetical advanced fuel, at various carbon intensities.²⁰² Depending on what it displaces, *the emissions benefits could be a few hundred thousand to over 1 million metric tons each year*

3.2.4 Enhancing Carbon Sequestration

Enhancing Carbon Sequestration

Drastically reducing carbon emissions is necessary if humanity is to avoid the worst effects of climate change, but more will be needed. Almost every model of a successful stabilization of temperatures includes a large amount of carbon dioxide

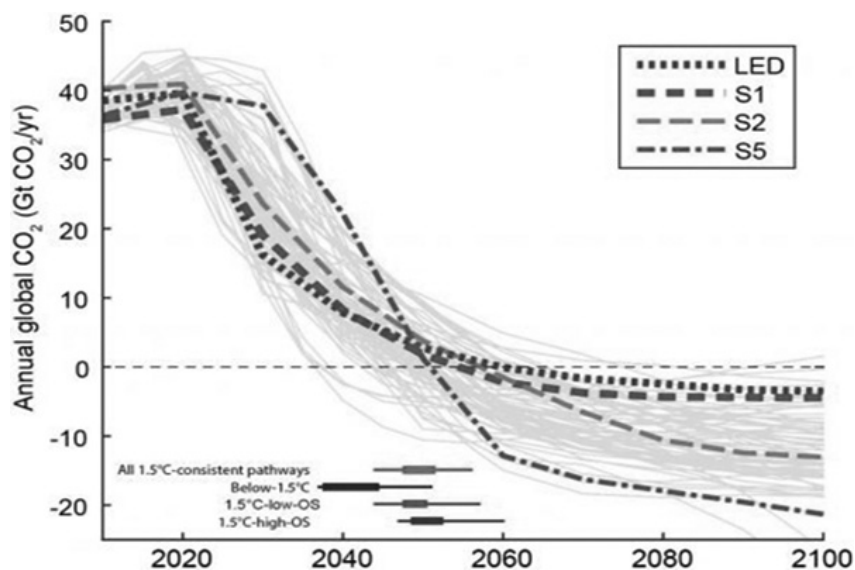
²⁰¹ Murphy, Colin W., and Alissa Kendall. "Life Cycle Analysis of Biochemical Cellulosic Ethanol under Multiple Scenarios." *GCB Bioenergy*, vol. 7, no. 5, May 2015, pp. 1019–1033, doi:10.1111/gcbb.12204. <http://onlinelibrary.wiley.com/doi/abs/10.1111/gcbb.12204>.

²⁰² Based on typical carbon intensities of fuels under the LCFS as reported in: http://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuel-pathways/current-pathways_all.xlsx.

removal from the atmosphere, through enhanced plant growth and CCS. *Figure 3* shows results from the IPCC 5th assessment report regarding global carbon emissions trajectories that preserve a hospitable climate. Each line represents one simulation of the future in which average temperature increase is kept below 1.5 °C (the graph for a 2 °C outcome looks quite similar). In every case, net emissions must not only be reduced to zero, but the world will need to rapidly remove carbon from the atmosphere over the second half of this century.²⁰³ Biotech can provide crucial tools to help this effort.

It is difficult to estimate how much of an impact carbon capture might have on the climate system of the future; in some ways the sky is really the limit since there is certainly no shortage of carbon dioxide in the atmosphere to remove. Accelerated R&D and rapid deployment of demonstration projects will be necessary to identify and prove the capabilities of the many technological options which could contribute.

Figure 3



Source: IPCC 5th Assessment Report.

Bioenergy with Carbon Capture and Sequestration (BECCS)

Many of the most promising concepts for scalable carbon sequestration rely on photosynthesis to do the actual capturing of carbon dioxide, which can then be used or stored. One of the most promising is BECCS, which uses the biomass from plants to produce fuels or energy, storing carbon along the way. There are many proposed models for BECCS, from burning biomass in conventional power plants and capturing carbon from the exhaust, to gasification systems which leave behind carbon-dense biochar that can be used as a carbon-sequestering soil amendment. The energy or fuels produced by these systems would also help displace fossil fuels, providing a double climate benefit. A recent analysis estimated that, by 2040, BECCS could cost effectively remove over 700 million metric tons of carbon per year,²⁰⁴ or more than half the emissions from all U.S. coal power plants, though doing so would require a massive amount of sustainable biomass feedstock to be produced.

Sequestration in Natural and Working Lands

Natural ecosystems have been sequestering carbon for millennia without human assistance and should not be overlooked as a method of removing carbon from the atmosphere. The main mechanism of sequestration is through the growth of roots

²⁰³ Source: *IPCC Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development*, Figure 2.5. http://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter2_Low_Res.pdf.

²⁰⁴ <http://www.ornl.gov/news/bioenergy-carbon-capture-combo-could-cost-effectively-mitigate-carbon-dioxide>.

in the soil, accumulation of fallen organic matter, or the accumulation of organic matter at the bottom of oxygen-poor bodies of water. Most biomass decomposes or is consumed by animals but some, especially the hard-to-digest fibrous parts of plants composed of lignin and cellulose, remains in solid form for decades or more and is integrated into soil. Human encroachment on natural lands and climate change are affecting most natural ecosystems, often disrupting this process; but careful intervention, through things like managed replanting, selective breeding for sequestration potential, soil amendments such as compost or biochar, selective harvest and prescribed fire can increase the rate of carbon sequestration and build healthy, resilient ecosystems. The National Academies concluded that enhanced management of forests could sequester anywhere from a few hundred pounds to over a ton of carbon per hectare annually;²⁰⁵ widely deployed this could result in sequestration of *100 million metric tons of carbon per year, with an additional 150 million metric tons possible through expanding forested areas*, this would be like taking 20 to 50 million cars off the road.

Enhanced Weathering

While the majority of carbon removal from the atmosphere is done by plants, it is not the only mechanism. Certain types of mineral like olivine, serpentine and basalt will react with carbon dioxide to form stable carbonate minerals in a process known as “weathering”. This mechanism has been largely responsible for mitigation of high atmospheric CO₂ concentrations in prehistoric times. Unfortunately, it is naturally quite slow, suited for geological rather than human time scales; but there are ways that it might be accelerated and scaled to help address the climate crisis. Olivine and serpentine are often found in discarded mine tailings or asbestos formations; basalt can often be found in geologically active areas, where geothermal power plants may be active. By managing air flow, moisture and pH levels in these sites, the rate of carbon uptake could be substantially increased. Adding catalysts, or microbial agents could increase the potential even further.

Direct Air Capture

Most carbon capture systems rely on natural processes to remove carbon from the atmosphere, but new innovative approaches may offer the opportunity to cut out the intermediate step. Several processes are being tested that use chemical solvents, such as amine or carbonate solutions, to absorb CO₂ from the atmosphere, and release it into a containment system, resulting in pure CO₂ that can then be sequestered underground or used to make products. Since CO₂ is only a few hundred parts per million in the atmosphere, this process requires a lot of surface area and usually uses heat to regenerate the solvent solution. This can make these systems bulky and energy-intensive. By developing more effective and durable solvents, or lower-energy regeneration processes, these systems could be made cheaper and more scalable. The upper limit of potential for these systems depends on how optimistic one is about the rate at which they will improve their energy and cost efficiency. Studies have projected the impact of direct air capture at anywhere from a few hundred million tons to more than half of today’s global CO₂ emissions.²⁰⁶

4 Barriers to Adoption and Policy Proposals

4.1 Financing Barriers

Biofuels and bioproducts have historically faced a major commercialization hurdle in the form of access to financing. Biotechnology products that are intended to reduce GHG emissions must necessarily compete with fossil fuels that supply a well-established refining and petrochemicals production infrastructure. Whereas this fossil infrastructure is often decades old and has often been fully paid off by its owners, biotechnology products require investment in either new infrastructure or large-scale retrofits of existing infrastructure. These investments can be very expensive, with one review of announced commercial-scale cellulosic biofuel projects finding capital costs to be approximately \$11/gallon of installed production capacity.²⁰⁷ With the exception of large, established companies, few new producers have ready access

²⁰⁵ <http://www.nap.edu/catalog/25259/negative-emissions-technologies-and-reliable-sequestration-a-research-agenda>.

²⁰⁶ Realmonde, G., Drouet, L., Gambhir, A., et al. *An inter-model assessment of the role of direct air capture in deep mitigation pathways*. NAT. COMMUN. 10, 3277 (2019). <http://doi.org/10.1038/s41467-019-10842-5>. <https://www.nature.com/articles/s41467-019-10842-5>.

²⁰⁷ Brown, T.R. and Brown, R.C. (2013), *A review of cellulosic biofuel commercial-scale projects in the United States*. BIOFUELS, BIOPROD. BIO-ref., 7: 235–245. <http://doi.org/10.1002/bbb.1387>. <https://onlinelibrary.wiley.com/doi/full/10.1002/bbb.1387>.

to this amount of capital, necessitating that they access the capital markets through lenders and/or investors.

Private sources of capital generally require a demonstration that a biotechnology project can achieve certain levels of profitability in the form of a “hurdle rate” before providing access to financing. Biobased fuels and products compete with fossil fuels and products for market share, and the market value of the former operates as a function of the latter as a result. On occasion this has been advantageous for biotechnology products, such as when fossil fuel prices rose sharply in 2007–08. The steady decline of fossil fuel prices that has occurred over the last decade in response to increased unconventional production of natural gas and petroleum in the U.S. has made it more difficult for biotechnology products to obtain the necessary hurdle rates for financing, however, even as climate change has become an important concern for American consumers.²⁰⁸ Likewise, the immediate financial incentive to make investments in energy efficiency and other marginal reductions to GHG emissions is limited when energy costs are low.

A challenge faced by biofuels and bioproducts is that many of the advantages that they offer over fossil fuels are not reflected in their market value. For example, in addition to the GHG emissions reductions discussed above, many biotechnology products achieve low levels of other types of pollution such as particulate matter emissions, sulfur emissions, water contamination, and toxic waste production compared to fossil fuels. These reduced impacts on human health and the environment have a clear monetary benefit in the form of reduced spending on medical services, environmental remediation, recovery from extreme weather events, *etc.*²⁰⁹ Moreover, biotechnology provides the ability to reduce GHG emissions and other forms of pollution across a variety of economic sectors, including agriculture, manufacturing, and transportation. Such benefits are not reflected in the market value of the biotechnology products, however, placing them at a competitive price disadvantage to fossil fuels.

Governments have sometimes enacted policies that cause the benefits of biofuels and bioproducts to be reflected on the marketplace, either by subsidizing those biotechnology products that have reduced impacts on human health and the environment or by increasing the cost of fossil fuels (see Section 4.3). Some, such as California’s LCFS, have prompted rapid growth in the use of biofuels by subsidizing biofuels, especially those from second-generation feedstocks, based on the degree to which they reduce transportation GHG emissions.²¹⁰ The LCFS recently expanded to provide support for CCS; when combined with Federal 45Q tax credits, this can offer over \$150/tonne of total incentive for project developers.^{211–212} Government incentives in the U.S. have not always been sufficient to make biotechnology products competitive with inexpensive fossil fuels, though: one recent analysis calculated that new cellulosic biorefineries would struggle to be financially viable despite the presence of supporting Federal policies because of the low fossil fuel prices that have prevailed since 2014.²¹³ Producers of biotechnology non-fuel products, for which government support mechanisms are fewer, have also faced high hurdles to private financing.

Some producers of U.S. biofuels and bioproducts have been able to obtain public financing in the form of loans, loan guarantees, and grants from the Federal and state governments. The U.S. Department of Agriculture offers loan guarantees of up to \$250 million for the building of capacity for the production of specific biotechnology products including advanced biofuels and biobased chemicals.²¹⁴ The loan guarantee program was started in 2008 to enable financing of advanced biofuels and was expanded in 2014 to cover other bioproducts as well. The loan guarantee reduces the barriers to obtaining private financing by having the U.S. Government backstop qualifying loans to producers. While this backstop does not guarantee private financing for the facility, it substantially reduces the producer’s

²⁰⁸ <http://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/>.

²⁰⁹ Deryugina, Tatyana, Garth Heutel, Nolan H. Miller, David Molitor, and Julian Reif. 2019. “The Mortality and Medical Costs of Air Pollution: Evidence from Changes in Wind Direction.” *American Economic Review*, 109 (12): 4178–4219. DOI: 10.1257/aer.20180279. <http://www.aeaweb.org/articles?id=10.1257/aer.20180279>.

²¹⁰ <http://www3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>.

²¹¹ <http://www.energy.gov/sites/prod/files/2019/10/f67/Internal%20Revenue%20Code%20Tax%20Fact%20Sheet.pdf>.

²¹² <http://www3.arb.ca.gov/regact/2018/lcfs18/15dayattb2.pdf>.

²¹³ Brown, T.R. (2019). *Why the cellulosic biofuels mandate fell short: a markets and policy perspective*. BIOFUELS, BIOPROD, BIOREF., 13: 889–898. <https://doi.org/10.1002/bbb.1987>. <http://onlinelibrary.wiley.com/doi/full/10.1002/bbb.1987>.

²¹⁴ <https://www.rd.usda.gov/programs-services/biorefinery-renewable-chemical-and-biobased-product-manufacturing-assistance>.

financing hurdle rate by reducing the risk of default on any loan covered by the guarantee. Several states operate their own direct loan and loan guarantee programs for biorefineries, albeit on a smaller scale.²¹⁵

Grants are another public finance mechanism that has supported the commercialization of biotechnology. Unlike direct loans and loan guarantees, grants are one-time awards of financing that are not repaid. The awards generally involve smaller amounts of financing than are provided via direct loans and loan guarantees, and they have often been used to support R&D or make improvements to existing facilities rather than to build a new commercial-scale facility. One example is the Value-Added Producer Grants program administered by the U.S. Department of Agriculture, which “helps agricultural producers enter into value-added activities related to the processing and marketing of new products.”²¹⁶ Other grants indirectly support the establishment and commercialization of biofuels by being directed toward the upgrading of infrastructure that is downstream of production facilities and improving consumer access.

The private and public capital that has been invested into biobased fuels and products has spurred the commercialization of low-carbon technologies since the turn of the century. Investments have fallen far short of what is necessary to avert catastrophic climate change, however, reflecting the major hurdles to financing that still exist within the biotechnology industry. The IPCC estimates that \$2.4 trillion in annual investment is needed globally in the energy sector alone until 2035 to limit temperatures to no more than 1.5 °C above pre-industrial levels.²¹⁷ This number is larger still if the de-carbonization of non-energy sectors such as agriculture and materials are accounted for. Actual global low-carbon energy investment in 2019 was only \$0.6 trillion, or 25% of what is needed.²¹⁸ Additional policy mechanisms will be required to rapidly reduce existing hurdles to the financing of biobased projects. Governments will also need to reduce the regulatory barriers that these projects face, as unfavorable regulatory environments increase the financial risks that they bear and their hurdles to financing.

4.2 Regulatory Barriers

The biotechnology industry plays an important role in developing and commercializing novel products that are not always directly compatible with the existing infrastructure in the sectors into which they are introduced. Moreover, many of these products are manufactured using technologies such as gene editing that are closely regulated by national governments. These factors have resulted in the formation of multiple regulatory barriers that hinder the adoption of low-carbon biofuels and bioproducts and constrain the biotechnology industry’s ability to reduce emissions of GHGs and other pollutants.

Biotechnology Regulation

GMOs have had a long and contentious regulatory history in the U.S. Since 1986, biotech products in the U.S. have been regulated under the *Coordinated Framework for the Regulation of Biotechnology (Coordinated Framework)*.²¹⁹ The framework has been updated several times since its introduction, including a comprehensive revision in May 2020, known as the Sustainable, Ecological, Consistent, Uniform, Responsible, Efficient (SECURE) rule, or Part 340 rule, which significantly streamlined and modernized the regulatory framework.²²⁰ While U.S. regulators and consumers are relatively accepting of GMO products, societal opposition to the use of GMOs in the agriculture sector in particular has, on occasion, prompted a cautious response to new GMO products by regulators that has slowed the introduction of biotech products to the market.

Regulations in other regions, such as Europe, are more hostile,²²¹ hampering the ability of the U.S. biotechnology market’s products to make an outsized contribution to global GHG emission reductions. For example, as discussed in Section 1.4, GMO food crops have enhanced resiliency under the types of extreme weather conditions that are becoming more common as the climate changes, thereby reducing the

²¹⁵ <https://www.usda.gov/sites/default/files/documents/usda-bioindicators-jan-2020.pdf>.

²¹⁶ <https://www.rd.usda.gov/programs-services/value-added-producer-grants>.

²¹⁷ https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.

²¹⁸ <https://www.iea.org/reports/world-energy-investment-2020/key-findings>.

²¹⁹ <https://usbiotechnologyregulation.mrp.usda.gov/biotechnologygov/about/about>.

²²⁰ https://www.aphis.usda.gov/aphis/ourfocus/biotechnology/biotech-rule-revision/secure-rule/secure-about/340_2017_perdue_biotechreg

²²¹ Shahla Wunderlich, Kelsey A. Gatto, *Consumer Perception of Genetically Modified Organisms and Sources of Information*, *ADVANCES IN NUTRITION*, Volume 6, Issue 6, November 2015, Pages 842–851, <https://doi.org/10.3945/an.115.008870>. <http://academic.oup.com/advances/article/6/6/842/4555145>.

amount of land required by agriculture and reducing the incentive to increase GHG emissions via land-use change.

Studies have found that Americans, including those residing in states with large agricultural sectors, have concerns about the production of bioenergy from GMO feedstocks as well.²²² Some second-generation bioenergy feedstocks have attracted opposition due to their use of fast-growing and potentially invasive forms of biomass. These feedstocks, especially those that have been genetically engineered to expand rapidly, have prompted concerns that they could expand into and damage the surrounding ecosystem.²²³ Notably, though, biotechnology has also provided a means of potentially overcoming this barrier. In one recent research breakthrough, microalgae grown as a biofuels feedstock has been genetically engineered to be unable to survive outside of the production facility, thereby preventing its uncontrolled growth.²²⁴

Genetically engineering microorganisms used in the production of fuels, chemicals and other products are also subject to Federal regulation, but their place in the Coordinated Framework has long been unclear, and GE microbes were not clearly addressed in the SECURE rule. This regulatory uncertainty is likely to present a significant barrier to the development and commercialization of biotech climate innovation.

Regulation of Fuels and Products

A second major regulatory barrier is posed by conflicting state policies on certain biotechnology products. While the U.S. has a comparatively more integrated common market than the European Union, individual state governments sometimes have policies in place that discourage the introduction of biotechnology products into entire regions, let alone individual markets. This situation can prevent the adoption of products that have interstate supply chains. One example that is already occurring involves the transport of renewable diesel through existing refined fuels pipelines. Renewable diesel is a drop-in biofuel that can utilize cost-effective distribution infrastructure such as the refined fuels pipelines that connect refineries to multiple states' markets (e.g., the Colonial Pipeline in the Southeastern U.S.). Many states require that the biofuels content of fuels retailed within their borders be stated on a fuel pump label, but this is not easily known if the renewable diesel is being pipelined in a blended form with diesel fuel. The result is that having even a single state on an interstate pipeline with strict pump labeling requirements can discourage the movement of a drop-in biofuel such as renewable diesel through it. The biofuel must instead be transported by rail, ship, or truck, all of which are more expensive and polluting options than pipeline.²²⁵

Biotechnology products that are not compatible with unmodified existing infrastructure often face a heightened regulatory barrier. U.S. ethanol consumption has historically been constrained by the so-called "ethanol blend wall", which refers to the maximum blend that can be used in existing infrastructure. Ethanol is a hydrophilic fuel that is miscible with water, and this trait prevents its movement through pipelines at any blend rate and use in unmodified engines above specific blend rates due to the potential for water contamination. Ethanol blends for use in unmodified engines were limited to 10% by volume (E10) until 2011, when the U.S. Government began to allow blends of up to 15% by volume (E15) during certain seasons of the year.²²⁶ The unrestricted sale of E15 was not permitted until 2019.²²⁷ The blend limits apply to ethanol whether produced from corn or lignocellulosic biomass, and the blend wall sharply constrained fuel ethanol demand from all feedstocks beginning in 2013 as a result.²²⁸

The U.S. Government has also used regulatory changes to restrain demand for all biofuels since 2017. National biofuels demand over the last decade has been driven by the revised Renewable Fuel Standard (RFS2), which mandates the annual consumption of specific volumes of different types of biofuels. Petroleum refiners are

²²² Ashlie B. Delshad, Leigh Raymond, Vanessa Sawicki, Duane T. Wegener, *Public attitudes toward political and technological options for biofuels*, ENERGY POLICY, 38(7), 2010, 3414–3425, ISSN 0301–4215, <https://doi.org/10.1016/j.enpol.2010.02.015>. <http://www.sciencedirect.com/science/article/pii/S0301421510000960>.

²²³ <http://www.wsj.com/articles/BL-EB-6592>.

²²⁴ <http://phys.org/news/2018-11-biocontainment-strategy-gmos.html>.

²²⁵ <http://www.fuelsinstitute.org/Research/Reports/Biomass-Based-Diesel-A-Market-and-Performance-Anal>.

²²⁶ http://afdc.energy.gov/fuels/ethanol_e15.html.

²²⁷ <http://www.reuters.com/article/us-usa-biofuels-ethanol/trump-lifts-curbs-on-e15-gasoline-to-help-farmers-angering-big-oil-idUSKCN1T11BN>.

²²⁸ http://www.usda.gov/sites/default/files/documents/MARKET_EFFECTS_AND_WELFARE_IMPACTS_OF_THE_RENEWABLE_FUEL_STANDARD.pdf.

tasked with ensuring that sufficient quantities of biofuels are blended with refined fuels to comply with the mandate, and a refiner's individual blending quota is determined by its market share. Between 2017 and 2019 the Federal Government greatly increased the number of hardship waivers that it awarded to refiners, reducing their blending quotas and overall demand for biofuels under the mandate.²²⁹ One analysis calculates that the increased number of hardship waivers awarded caused demand for advanced biofuels under the mandate to be up to 1 billion gallons lower per year, and that the amount of the annual reduction has equaled as much as 50% of U.S. production.²³⁰

Regulatory barriers can be particularly high for truly novel biotechnology products due to a lack of suitable regulatory frameworks. Cultured meat, for example, has been identified as one product for which existing U.S. regulations are inadequate due to the existence of myriad production techniques and the potential for genetic modification as part of the production process.²³¹ Regulatory uncertainty is as much of a barrier as adverse regulation is, inasmuch as both discourage financiers from providing the capital necessary for commercialization. The lack of an adequate regulatory framework also raises the possibility that adverse regulation could result from a regulatory rulemaking process.

The future growth of the U.S. biotechnology industry will be heavily affected by existing and potential regulatory barriers. One recent analysis estimated that 50% of the total economic impact of biotechnology over the next decade "could hinge on consumer, societal, and regulatory acceptance" of the industry's products.²³² The analysis further calculated that this amount increases to 70% over the next 2 decades. This has important implications for the ability of biotechnology to provide climate solutions given that early emissions reductions are more valuable than later reductions. The continued presence of regulatory hurdles is an especially pressing issue given the major shortfall of de-carbonization investments (see Section 4.1).

4.3 Policy Proposals

The growing recognition by many U.S. policymakers that existing efforts to de-carbonize the country's economy are falling short of its commitments under the 2015 Paris Climate Agreement has led to the unveiling of a variety of climate policy proposals at the Federal, state, and local levels of government. These proposals fall into two broad categories: the first category focuses on the de-carbonization of individual sectors while the second category instead takes an economy-wide approach. The sector-based proposals are similar to policies already in place in states such as California, whereas the economy-wide proposals are more novel and less well established. An aggressive combination of sector-based and economy-wide policies is needed to rapidly realize the full potential of biotechnology to combat climate change.

4.3.1 De-carbonizing Transportation

The first 2 decades of the 21st century saw the introduction of several policies to reduce the carbon intensity and GHG emissions of the transportation sector. Some, such as Federal RFS2 and California LCFS, were successfully implemented and have resulted in the partial de-carbonization of the on-road transportation sectors in their respective jurisdictions through the increased use of biofuels. But regulatory implementation of these policies has, particularly in the case of RFS2, limited their impact. *Barriers to the full implementation of existing Federal renewable fuels policies should be removed and aggressive follow-on transportation sector climate policies adopted to achieve the maximum near-term and longer-term GHG reductions.*

Renewable Fuel Standard

The continued presence of the RFS2 as the centerpiece of U.S. transportation sector de-carbonization efforts has had an important impact on the development of intermediate-term GHG emission reduction strategies, with cumulative reductions of

²²⁹ <http://www.epa.gov/fuels-registration-reporting-and-compliance-help/rfs-small-refinery-exemptions>.

²³⁰ Irwin, S. "Small Refinery Exemptions and Biomass-Based Diesel Demand Destruction." *farmdoc daily* (9): 45, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, March 14, 2019. <http://farmdocdaily.illinois.edu/2019/03/small-refinery-exemptions-and-biomass-based-diesel-demand-destruction.html>.

²³¹ Neil Stephens, Lucy Di Silvio, Illtud Dunsford, Marianne Ellis, Abigail Glencross, Alexandra Sexton, *Bringing cultured meat to market: Technical, socio-political, and regulatory challenges in cellular agriculture*, TRENDS IN FOOD SCIENCE & TECHNOLOGY, 78, 2018, 155–166, ISSN 0924–2244, <http://doi.org/10.1016/j.tifs.2018.04.010>. <https://www.sciencedirect.com/science/article/pii/S0924224417303400#sec5>.

²³² <http://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/the-bio-revolution-innovations-transforming-economies-societies-and-our-lives#>.

980 MMT CO₂ since RFS2 was enacted.²³³ But a series of EPA regulatory actions has substantially limited the program's climate gains. The agency has repeatedly reduced RFS volume obligations and has issued a growing number of small refinery waivers, further reducing the market for biofuels in the U.S.²³⁴

EPA has taken some steps to expand U.S. biofuels markets. The ongoing effort to expand the volume of ethanol permitted by the ethanol blend wall is one example of this trend (see Section 3.2). Following on earlier efforts to ease restrictions on E15 consumption, in 2020 the Trump Administration announced that the Federal Government would not block the use of E15 in fuel pumps that were compatible with E10 (although state governments are still able to do so).²³⁵ The complete replacement of E10 consumption by E15 would increase the amount of fuel ethanol consumed in the U.S. by 50%. While the magnitude of the associated transportation sector emissions reduction would depend on the feedstocks being used, any increase to E15 consumption would contribute to the sector's de-carbonization. *Additional actions to expand U.S. biofuel markets and establish greater RFS program certainty are needed to maximize near-term climate gains.*

Low Carbon Fuel Standard

The success of California's LCFS and a lack of Federal action on climate policy after 2016 has prompted similar policies to be proposed in other states. Oregon adopted a LCFS under its Oregon Clean Fuels Program that mandates a 10% reduction to the carbon intensity of its transportation sector from 2015 levels by 2025.²³⁶ Efforts to implement a statewide LCFS in neighboring Washington are ongoing despite the failure of an earlier attempt.²³⁷ Similar regional initiatives have been proposed in the Midwest²³⁸ and East Coast,²³⁹ although legislative action on these proposals has yet to occur.

Efforts to implement a national LCFS date to 2007, when then-U.S. senator Barack Obama introduced a bill to require future reductions to the carbon intensity of the U.S. transportation sector.²⁴⁰ While that proposal was ultimately discarded in favor of legislation that created the RFS2, the U.S. House Select Committee on the Climate Crisis recently recommended that the RFS2 be transformed into a national LCFS.²⁴¹ That recommendation also included a provision to expand the remit of the RFS2 to include shipping and aviation fuels, in addition to on-road transportation fuels, as part of the transformation. The success of California's LCFS and steps by other states to adopt similar programs suggests *the time has come for a Federal low-carbon fuel standard.*

Other Fuel Policies

In addition to market-driving programs such as the RFS and LCFS, ongoing Federal and state investments in the improvement of existing biofuels and the development of next-generation biofuels are recommended to achieve the greatest near-term climate benefit. *Robust Federal investment in biofuel research and development at the U.S. Department of Energy and USDA and long-term tax credits or other incentives for private-sector biofuel research and development and facility construction are recommended to help drive additional private-sector investment in low-carbon fuels.*

The development of a long-term sustainable aviation fuel specific blender's tax credit will attract significant investment to the sector, address existing structural and policy disincentives, and ramp up domestic SAF production to meaningful levels.. Further continuation of the Second Generation Biofuel Producer Tax Credit is incredibly important to companies that are making significant investments to create new agricultural supply chains, build infrastructure for liquid biofuels, and develop innovative new technologies.

²³³ http://ethanolrfa.org/wp-content/uploads/2021/02/LCA_-_RFS2-GHG-Update_2020.pdf

²³⁴ <http://www.bio.org/press-release/ending-unjustified-rfs-waivers-will-put-america-more-sustainable-path>.

²³⁵ <http://www.dtnpf.com/agriculture/web/ag/blogs/ag-policy-blog/blog-post/2020/09/12/trump-announces-e15-fuel-can-go-e10>.

²³⁶ <http://www.oregon.gov/deq/ghgp/cfp/Pages/default.aspx>.

²³⁷ <http://www.seattletimes.com/seattle-news/gov-jay-inslees-low-carbon-fuel-standard-faces-tough-road-ahead-in-washington-state/>.

²³⁸ <http://www.governorsbiofuelscoalition.org/groups-exploring-potential-midwest-lcfs-collaborative/>.

²³⁹ <http://www.transportationandclimate.org/content/tci-declaration-intent>.

²⁴⁰ <http://www.congress.gov/bill/110th-congress/senate-bill/1324>.

²⁴¹ <http://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf>.

4.3.2 De-carbonizing Industry

Policy has historically favored the production of biofuels over other forms of biobased products. Renewable chemicals and other non-fuel biobased products that achieve GHG emission reductions, such as those described in Section 2, will need to be supported if sectors outside of transportation are also to be successfully Dearborn. Several potential mechanisms exist for achieving this result, some of which build upon existing policy frameworks and others that employ more novel approaches.

Renewable Chemical and Biobased Product Programs

The U.S. Government operates two important farm bill energy title programs, the BioPreferred Program and the Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program, that support the commercial development of renewable chemical and biobased product manufacturers. These producers continue to face substantial hurdles to commercialization due to the lack of an even playing field with producers of competing products from fossil fuels.

The BioPreferred Program, originally authorized under the 2002 Farm Bill and reauthorized and expanded under the 2018 Farm Bill, includes a Federal biobased product procurement preference program and a voluntary USDA labeling program for biobased products.²⁴² These programs have significantly increased both consumer awareness and market demand for biobased products. The 2018 Farm Bill provided increased funding for BioPreferred and, among other provisions, directed USDA and the Department of Commerce to develop North American Industry Classification System (NAICS) codes for renewable chemicals and biobased products.²⁴³ The 2020 National Academies of Science report on “Safeguarding the Bioeconomy” cites the lack of an industry classification system for biotech products as a significant roadblock to investment and broader adoption, and recommends a series of actions to fill this gap.²⁴⁴

The Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program (BAP) provides loan guarantees for the development, construction, and retrofitting of commercial-scale biorefineries.²⁴⁵ The 2018 farm significantly expanded and streamlined the BAP loan program.

The Commerce Department and USDA should move swiftly to implement biobased product classification systems, and Congress should fully fund BioPreferred and the BAP loan program.

Tax Policy

Tax policy has been a vital early driver of biofuel and other renewable energy development. Several recent policy proposals seek to provide a similar push to non-fuel biobased products. A proposed change to Federal tax law would enable producers of biobased products to utilize the Master Limited Partnership pass-through tax structure that is widely employed by fossil fuel producers to improve access to capital and reduce tax burdens.²⁴⁶ Such an expansion has been employed in the past in the U.S. to support the development of renewable electricity and biofuels logistics infrastructure, making its absence in the biobased products sector particularly notable. Federal legislation to expand existing business-related and investment tax credits to include renewable chemicals production has also attracted bipartisan support in Congress,²⁴⁷ although it has yet to become law.

U.S. tax policy should be updated to extend renewable energy tax incentives to renewable chemicals and biobased products.

4.3.3 De-carbonizing Agriculture

One of the most important mechanisms available to leverage biotechnology for climate mitigation is agriculture policy. As discussed in section 2, the carbon intensity of industrial products is highly dependent on the carbon intensity of feedstocks. Substitution of biobased feedstocks for fossil feedstocks is an essential step, but the greatest gains are achieved when climate objectives are integrated into the production of the feedstocks themselves, internalizing the environmental benefits that are provided by producers of biobased products, especially those that operate within the agricultural sector.

²⁴² <http://www.biopreferred.gov/BioPreferred/faces/pages/AboutBio-Preferred.xhtml>.

²⁴³ <http://www.soybiobased.org/update-of-usda-biopreferred-program/>.

²⁴⁴ <http://www.nap.edu/resource/25525/interactive/>.

²⁴⁵ http://www.rd.usda.gov/sites/default/files/fact-sheet/508_RD_FS_RBS_Biorefinery.pdf.

²⁴⁶ <http://www.bio.org/sites/default/files/2020-01/Final-BIO%20Comments-House%20Committee%20on%20Climate%20Crisis%20RFI-12-20-19.pdf>.

²⁴⁷ <http://pascrell.house.gov/news/documentsingle.aspx?DocumentID=4548>.

One such proposal would expand farm bill programs such as the Conservation Stewardship Program, which encourages producers to undertake conservation activities on working lands,²⁴⁸ to include practices that decrease the carbon intensity of agricultural production while increasing crop yields. Likewise, the existing section 45Q tax credit for certain CC&S technologies could be expanded to encompass the building of soil carbon in the U.S. agriculture sector.

The agriculture sector faces high barriers of entry to voluntary carbon credit programs that prevent their full carbon sequestration potential from being recognized. Federal legislation such as the Growing Climate Solutions Act of 2021 has been introduced as a means of enabling the private-sector to overcome these hurdles,²⁴⁹ but Federal agencies could also provide additional support by expanding existing agricultural conservation programs and creating agricultural sequestration certification programs.

Congress and the White House should move swiftly to implement programs to reward farmers for reducing the carbon footprint of feedstock production and for capturing and sequestering carbon.

4.3.4 Negative-Carbon Technologies

To achieve agreed upon climate mitigation objectives, a major focus of climate policy must be investment in negative-carbon technologies. This will require policies that drive carbon capture, use and storage throughout the economy, including in agriculture and manufacturing. This should include sector-specific programs in each of these areas. *Climate policy should drive investment in agricultural biologicals, plant biotechnology and other biotechnologies to increase soil carbon sequestration and should reward microbial carbon capture and other biotechnologies for carbon removal and recycling.* Provisions for biological carbon capture and use in the section 45Q tax credit provide a template for inclusion of these technologies in future climate policy.

4.3.5 Economy-Wide Climate Programs

The U.S. transportation and power sectors have been the primary focus of policymakers due to their large share of total U.S. GHG emissions (28% and 27%, respectively, in 2018).²⁵⁰ Several states have adopted more ambitious long-term policies that require the full de-carbonization of their economies by 2050, however, and the remaining sectors (industry, commercial/residential, and agriculture) will need to achieve future carbon intensity reductions greater than those that have been achieved by the power and transportation sectors to date if these policies are to be successful.

The first such state policy to be implemented was California's Global Warming Solutions Act of 2006, which mandated an economy-wide emission reduction of 80% by 2050.²⁵¹ In 2018 California's governor issued an Executive Order that changed this target to 100% on a net basis by 2045.²⁵² Equally ambitious is the New York Climate Leadership and Community Protection Act (CLCPA). Passed in 2019, the CLCPA requires that the state's economy-wide emissions be reduced by 100% by 2050,²⁵³ although up to 15% of the reduction can take the form of offsets such as those described in Section 2.2. Colorado, Connecticut, Maine, Massachusetts, Minnesota, Nevada, Rhode Island, and Washington also all have statutory targets requiring statewide GHG emission reductions of at least 80% by 2050.²⁵⁴

A notable aspect of the deep economy-wide de-carbonization targets is that they will likely require the widespread deployment of carbon-negative technologies and non-fuel bioproducts in order to be successful. Policy language referring to "net-zero" emissions targets or, in the case of New York, explicit carbon offset thresholds reflects the recognition of this probable outcome by policymakers. Existing state de-carbonization requirements also identify varying degrees of de-carbonization difficulty for different economic sectors. New York's statutory target, for example, imposes an absolute zero-emission target on its power sector by 2040 through language that explicitly excludes the use of carbon offsets by that sector. The reason for this distinction is the expectation that zero-emission technologies such as solar PV and wind will enable an absolute zero requirement to be achieved. Those sectors such

²⁴⁸ <http://www.federalregister.gov/documents/2019/11/12/2019-24367/conservation-stewardship-program-csp-interim-rule>.

²⁴⁹ <https://www.congress.gov/bills/117/congress/117th-congress/senate-bill/1251>.

²⁵⁰ <http://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.

²⁵¹ <http://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>.

²⁵² <http://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>.

²⁵³ <http://climate.ny.gov/-/media/CLCPA/Files/CLCPA-Fact-Sheet.pdf>.

²⁵⁴ <http://www.c2es.org/document/greenhouse-gas-emissions-targets/>.

as transportation and manufacturing that utilize more energy-intensive systems, by contrast, will need to rely upon biomass and biotechnology to achieve net-zero emissions, sometimes via carbon-negative technologies, while supplying close substitutes for the fossil fuels and products that modern economies rely upon.

Existing government efforts in the U.S. to incentivize de-carbonization have largely been limited to the transportation sector, whereas the implementation of performance-based de-carbonization standards in manufacturing would enable the broad scope of biotechnology's benefits to be recognized by the market. Such standards include, but are not limited to, financing R&D, promoting alternatives to non-fuel fossil products, supporting and expanding sustainable procurement policies, and incentivizing the development of green manufacturing and sustainable agriculture practices.

Recent years have seen only limited action at the Federal level to encourage the utilization of biotechnology's de-carbonization potential. Several states have adopted more ambitious long-term economy-wide de-carbonization targets, however. While the policy mechanisms to achieve these targets have yet to be established, their success will likely depend on the extent to which the policies properly value the de-carbonization, including net carbon sequestration, abilities of both fuel*

Summary and Conclusion

"Climate change will affect every person, nation, industry, and culture on Earth."

Avoiding its worst effects will require an equally universal response. The biotechnology industry is uniquely positioned to play a leading role in the effort to reduce emissions, adapt to new climate conditions, and address the needs of the 21st century and beyond. In this report, three key themes have emerged. These themes should guide policymakers—and the biotech industry itself—if we are to achieve the full potential of biotechnology to address climate change.

Biotechnology is an essential climate mitigation tool. Biotech has already delivered vital climate solutions and holds the potential to provide transformative climate technologies across a broad spectrum of industrial sectors.

Biotech can achieve at least 3 billion tons of CO₂ equivalent mitigation annually by 2030 using existing technologies. The biotechnologies with the greatest potential impact include:

- Biotech solutions have the potential to reduce agriculture sector GHG emissions by nearly 1 billion metric tons (1 gigaton) annually—or the equivalent of GHG emissions from more than 100 million U.S. homes. This includes reducing nitrous oxide emissions from agriculture by over 150 million metric tons of carbon equivalent and enhancing soil carbon sequestration by up to 600 million metric tons per year through a combination of agriculture biotechnology and agricultural biologicals.
- The transition to next-generation biofuels enabled by biotechnology will double the per-gallon emissions reductions of biofuels *versus* petroleum. Doubling biofuel use through broad adoption of next-generation biofuels in aviation and other transportation sectors would increase the contribution of biofuels to U.S. transportation sector GHG emissions reductions from 980 million tons over the past thirteen years to over 1.8 billion tons for the decade 2020–2030, a reduction equivalent to taking more than 45 coal-fired power plants offline.
- Broad adoption of algal and microbial feed ingredients that reduce enteric methane emissions from ruminant animals can avoid the equivalent of up to 140 million metric tons of carbon annually.
- Broad adoption of anaerobic digestion for animal waste would reduce U.S. GHG emissions by over 150 million metric tons annually using current technology.
- Bioenergy with Carbon Capture and Sequestration (BECCS) could cost-effectively remove over 700 million metric tons of carbon per year, or more than half the emissions from all U.S. coal power plants.
- Suitable land and other infrastructure exists to deploy algae-based carbon capture systems at more than 500 power plants and ethanol facilities in the U.S. These systems would have a potential to capture more than 200 million tons of CO₂ annually.

Emerging biotechnologies could have transformative GHG benefits in a range of industrial sectors. Among the most promising applications are:

* **Editor's note:** the paragraph is not completed in the submitted report. It has been reproduced herein as submitted.

- Biobased plastics and polymers, such as PLA, PHA, and BDO have achieved lifecycle GHG reductions of up to 80% *versus* their petroleum-based counterparts. A rapidly growing list of new biobased chemical building blocks is now in development.
- Plant-based and cultured meats are providing new consumer choices and up to 89% lower lifecycle emissions for a global food sector responsible for more than 1/3 of total GHG emissions.
- Biology-based parallel computing and DNA data storage have the potential to cut the energy and carbon footprints of computing and data storage—sectors expected to account for 14% or more of global GHG emissions by 2040—by 99% or more *versus* current technology.

Biotechnology offers vital contributions to near-term GHG reductions and revolutionary tools to combat climate change in the longer term. To successfully address the challenge of climate change, humanity will need to predominantly de-carbonize the global economy by mid-century and begin significantly drawing down concentrations of atmospheric carbon shortly thereafter. The struggle against climate change must be viewed as a multi-decade process, which needs to begin immediately. A ton of carbon emissions avoided now matters more than a ton avoided next year, but every step needs to be evaluated from the perspective of maintaining a trajectory towards success.

An aggressive combination of sector-based and economy-wide policies is needed to rapidly realize the full potential of biotechnology to combat climate change. The future growth of the U.S. biotechnology industry will be heavily affected by both existing and potential regulatory barriers, and by the degree to which governments invest in the development and deployment of biotech solutions. Biotechnology is a vital component of the national and global infrastructure needed to combat catastrophic climate change. The economy-wide scope of this challenge will require the adoption of policies that reflect the ability of biotechnology products to achieve de-carbonization across all major sectors of the U.S. economy. Biotechnology companies will need to speak up not only to ensure that new policy provides opportunities for success, but to make it clear that prosperity is not threatened by sustainability. There is ample evidence that reducing emissions is, in fact, essential in supporting a thriving economy.

The biotechnology industry has a tremendous opportunity to build upon decades of success, and provide critical tools and expertise for the decades to come. Like every other industry, change will be profound and lasting, but if any industry can demonstrate that change can be an opportunity for growth, it is this one.

SUBMITTED LETTER BY RINA SINGH, PH.D., EXECUTIVE VICE PRESIDENT, POLICY,
ALTERNATIVE FUELS & CHEMICALS COALITION

April 15, 2022

Hon. DAVID SCOTT,
Chairman,
House Committee on Agriculture,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
House Committee on Agriculture,
Washington, D.C.

Dear Chairman Scott, Ranking Member Thompson, and Members of the Committee:

Alternative Fuels and Chemicals Coalition (AFCC) appreciates the opportunity to submit a statement for the record to the United States House of Representatives Committee on Agriculture hearing, “A 2022 Review of the Farm Bill: Energy—Renewable Energy Opportunities in Rural America.”

AFCC and its member companies applaud the House Committee for closely looking at the renewable energy opportunities in rural America and for having two of AFCC’s member companies, Dr. Pat Gruber, CEO, Gevo, and Mr. Jay McKenna, CEO, Nacero, participate in the second panel of the hearing as witnesses.

Introduction

AFCC is a collaborative government affairs effort organized by the Kilpatrick Townsend & Stockton law firm and American Diversified Energy. AFCC was created to address policy and advocacy gaps at the Federal and state levels in renewable chemicals, bioplastics/biomaterials, cell-cultured food ingredients, single cell protein for food and feed, enzymes, alternative fuels, biobased products and sustainable aviation fuels (SAF) sectors. AFCC member companies work on feedstocks, re-

newable chemicals, food, feed, fiber, bioplastics and biomaterials, and biofuels impacting the biobased economy.

The farm bill focusing on innovation aimed at boosting renewable energy in rural areas, including incentives for manure digesters for renewable natural gas producers, renewable fuels for ground transportation and sustainable aviation fuels, and renewable chemicals and biobased products. Making these programs cost effective for farmers who are responsible for generating the raw materials is key to all of our downstream successes in industrial biotechnology. Especially now, with high oil prices that suddenly make alternative energy sources more attractive and critical, and renewable energy production is also a driver of economic equality for farmers of racial backgrounds, as well as a cost-saver and a tool to mitigate climate change.

Importance of the Farm Bill Programs in Energy Title IX

Energy Title IX programs has been integral for fostering innovation and facilitation research and development of agricultural and forestry feedstocks for biofuels, renewable chemicals, and biobased products. The establishment of one new program in the 2018 Farm Bill—Carbon Utilization and Biogas Education Program brought the importance of climate change and a closer look at sources of feedstocks deployed for bioenergy and renewable chemicals and biobased products. Federal programs supporting the biobased economy provides de-carbonization and new sustainable products produced at scale in fewer steps than conventional fossil fuel processes, lowers greenhouse gasses, increases jobs, and provides a stable economy.

With the current national economy in a heightened state of uncertainty, the next farm bill and Energy Title IX programs become even more important to fuel the nation with a stable biobased economy. Companies look to deploy capital in the aftermath of COVID-19 and during increased supply chain project costs resulting from spiraling inflation and the Russia-Ukraine war, economic and regulatory certainty will be provided from the programs in the Energy Title IX programs in the re-authorization of the fifth farm bill. The programs are paramount, with investors stressing the importance of disciplined allocation. The Federal programs will take a positive step in providing the certainty, as government support is pivotal for renewable projects and the deployment of capital for lower carbon technologies for biofuels, renewable chemicals and biobased products. In turn, the nation will have sustainable biobased products.

The Fifth Farm Bill—Energy Title IX Programs Promoting Innovation

Section 9002 Biobased Markets Program

The 2018 Farm Bill directs the Secretary of Agriculture and the Secretary of Commerce to jointly develop NAICS codes for renewable chemicals and biobased products manufacturers. The next farm bill needs to have the NAICS codes directive with a timeline for its implementation by OMB.

NAICS codes would greatly enhance the ability to track and report on the renewable chemicals and biobased products industry, determine the funding requirements from Federal and state governments, track innovative activities in the sector, mitigate climate change, and capture the jobs created. Currently, production of renewable chemicals and biobased products have no tracking system and the industrial biotechnology sector has no knowledge of its growth potential.

There are changes requested in the implementation of the BioPreferred® Program, while encouraging the purchasing program of sustainable products, it is not operating the way Congress intended. Without sound sales numbers and procurement officers identified for the program the supply chain for renewable chemicals and biobased products will continue to be broken. If the program were operating properly, it would be very successful. AFCC requests quarterly updates from USDA to Congress for the procurement of renewable chemicals and biobased products in the fifth farm bill.

The BioPreferred® Program needs the label or certification to be modernized, showing that the renewable chemicals and biobased products are indeed sustainably sourced. Currently, the label shows a carbon content which is based on beginning of life, there is no end of life—the sustainability piece is missing on the label. Therefore, at a time of increased pressures on retailers, brands and manufacturers to reduce the carbon footprint of their consumer products, the label needs to show a carbon intensity (CI) score which will be determined by an international American Standard Test Method (ASTM). Today, the biobased products are being denied shelf space in large retailers shelves, because the products are not considered sustainable. AFCC is working with ASTM on developing the CI score for biobased consumer products based on sound science and regenerative agriculture practices.

AFCC is requesting increased funding for the BioPreferred® Program to support procurement officers and the development of modernizing the label which will give consumers confidence the products are sustainably sourced.

Section 9003 Biorefinery Assistance Program for Renewable Chemicals and Biofuels

AFCC is requesting a grants program be created for the Biorefinery Assistance Program which will encourage innovation and generate jobs.

AFCC in its Agriculture FY 2023 Appropriations request, which is attached, requests Congress expand its authority to 5 years funding for the biorefinery program instead of only 2 years as is in the 2018 Farm Bill. The 2018 Farm Bill expanded access to stand alone renewable chemicals manufacturing facilities, but without a full 5 years of funding the program, new innovative technologies and companies are prevented in capital in rural areas, which prevent job growth and economic growth in rural America.

Soil Carbon and Regenerative Agriculture Practices

Creating an ASTM standard based on good science practices that utilizes baseline soil carbon storage will give farmers and growers Section 45Q tax incentive for carbon capture in soil. AFCC supports the *Growing Climate Solutions Act*, since it would create a voluntary, producer-led carbon sequestration certification program at the Department of Agriculture (USDA) and provide farmers with technical resources to participate in voluntary carbon markets. AFCC is requesting an interagency be created to work with the Department of Treasury in the development of a tax incentive for farmers in Section 45Q of the Tax Code.

New Grant Program: The Bioeconomy Development Opportunity (BDO) Zone Program

BDO Zone Supports Energy Infrastructure in Rural & Distressed Communities

The Bioeconomy Development Opportunity Zone Program is a certification and regional designation grant program that enables economic development agencies and communities to more effectively and credibly disclose feedstock-related risks and promote biobased development opportunities to developers and investors around the world. The program would support development of manufacturing sites and jobs in underserved communities. A marker bill is attached which AFCC is promoting for the next farm bill.

Compostable Bioplastics

Under the carbon capture utilization education program. AFCC is requesting that bioplastics and biobased packaging will provide key opportunities to fight against climate change. The next farm bill, Energy Title IX should have research programs showing that compostable bioplastics and packaging can be tested and have proven to safely break down without any harm to the environment and can dramatically reduce the amount of food waste going into landfills. Composting that food waste instead of landfilling it is one the best strategies for addressing climate crisis. Sending food waste to landfills generates methane, which is 20 times worse than carbon dioxide as greenhouse gas emission. We urge USDA and DOE to create programs funding composting of bioplastics and food waste. Finished compost is critical for improving soil health, which is also an emerging solution to protect the climate and restoring the Earth's topsoil for better draw down of carbon dioxide in soil, thereby reducing emission in the atmosphere, and the soil is the carbon sink for smart climate practices for U.S. farmers.

Improving Modeling Technologies in Assessing Life Cycle Analysis

AFCC is requesting USDA, DOE, and EPA consider using greenhouse gas assessment of renewable fuel and renewable chemical pathways and using modernized methods such as the Argonne GREET model. A thoughtful, scientific, and holistic approach to establishing low-carbon or clean fuel standards and related policies that will reflect all relevant aspects of feedstock processing and recognize its value for renewable chemicals, biofuels, and biobased products to accelerate the growth of value-added agriculture and the de-carbonization of the U.S. biobased economy.

Conclusion

Thank you for the opportunity to provide statement for the record. AFCC recommends Congress should promote innovative technologies, which are sustainable, safe for the environment, and encourage greater investments in lowering the carbon

footprint which would protect the national security interests. This would build the biobased economy, build the rural and underserved areas, and create more jobs.

Sincerely,



RINA SINGH, Ph.D.,
Executive Vice President, Policy,
Alternative Fuels & Chemicals Coalition.

[ATTACHMENT 1]

AFC's 2023 Appropriations Requests
Key Program Summaries: Agriculture & Rural Development
AFC's Priorities Are / Highlighted
 Subcommittee: Agriculture & Rural Development
 Agency: U.S. Department of Agriculture (USDA)

Account/Program:	FY 2019 Appropriation	FY 2020 Appropriation	FY 2021 Appropriation	FY 2022 Appropriation	President's FY 2023 Budget	AFC's FY 2023 Request	Notes
Please Note: The budget amounts below include both Program Level (PL) and Budget Authority (BA) amounts							
USDA: Rural Business—Cooperative Service; Rural Business Program Account, Business & Industry (B&I) Loan Guarantees (Section 310B of the Consolidated Farm and Rural Development Act of 1961)							
Discretionary	PL: \$950 million BA: \$33.25 million	PL: \$1 billion + \$951 million supplemental BA: \$21 million	PL: \$1 billion BA: \$10 million	PL: \$1.5 billion (USDA FY 2022 request) BA: \$73.125 million	PL: \$1.5 billion BA: \$32 million	PL: \$1.5 billion BA: \$32 million	
Mandatory	\$0	\$0	\$0	\$0	\$0	\$0	
USDA: Rural Business—Cooperative Service; Rural Business Program Account, Section 9002: Biobased Products Procurement Program (USDA BioPreferred® Program) (1)							
Discretionary	\$0	\$0	\$0	\$0	Per 2018 Farm Bill	\$3,000,000 discretionary funding	
(Mandatory)	\$3,000,000 per 2018 Farm Bill	\$3,000,000 per 2018 Farm Bill	\$3,000,000 per 2018 Farm Bill	\$3,000,000 per 2018 Farm Bill	\$3,000,000	Increase to \$5,000,000 funding level	
See Endnote (1) for current issues with the BioPreferred® Program and AFC's recommendations to address and fix these issues							
USDA: 2018 Farm Bill, Title IX, Section 9003: Bioenergy, Renewable Chemical & Bioproducts Manufacturing Assistance Loan Guarantee Program (2)							
Discretionary	Discretionary Funding authorized per 2018 Farm Bill: \$25,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$25,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$25,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$25,000,000 No discretionary funding was appropriated	\$0	\$25 million discretionary funding per 2018 Farm Bill (2)	
Mandatory	PL: \$27 million BA: \$50 million	PL: \$158 million BA: \$25 million	\$0	\$0	\$0	See Discretionary Funding Above FY 2020 was the final year of mandatory funding for this program	
USDA: 2018 Farm Bill, Title IX, Section 9005: Bioenergy Program for Advanced Biofuels (Advanced Biofuel Payment Program)							
Discretionary	Discretionary Funding authorized per 2018 Farm Bill: \$20,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$20,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$20,000,000 No discretionary funding was appropriated	Discretionary Funding authorized per 2018 Farm Bill: \$20,000,000 No discretionary funding was appropriated	\$0	\$20 million discretionary funding per Title IX, Sec. 9005, Agriculture Improvement Act of 2018	

[ATTACHMENT I]—CONTINUED
AFCC's 2023 Appropriations Requests
Key Program Summaries: Agriculture & Rural Development
AFCC's Priorities Are Highlighted
 Subcommittee: Agriculture & Rural Development
 Agency: U.S. Department of Agriculture (USDA)

Account/Program:	FY 2019 Appropriation	FY 2020 Appropriation	FY 2021 Appropriation	FY 2022 Appropriation	President's FY 2023 Budget	AFCC's FY 2023 Request	Notes
Mandatory	2019-2023 mandatory PL: \$7 million BA: \$7 million	2019-2023 mandatory PL: \$7 million BA: \$7 million	2019-2023 mandatory PL: \$7 million BA: \$7 million	2019-2023 mandatory PL: \$7 million BA: \$7 million	PL: \$7 million BA: \$7 million	PL: \$7 million BA: \$7 million per 2018 Farm Bill	
USDA: Rural Business—Cooperative Service; Rural Business Program Account, Section 9007: Rural Energy for America Program (REAP) Loan Guarantees							
Discretionary	\$534,000	\$706,000	\$392,000	\$0	\$0	\$20 million discretionary funding per Title IX, Section 9007(d), Agriculture Improvement Act of 2018 PL: \$635 million BA: \$1 million	
Mandatory	PL: \$524 million BA: \$30 million	PL: \$183 million BA: \$7 million	PL: \$530 million BA: \$10 million	PL: \$123 billion (USDA FY 2022 request) BA: \$12.92 million	PL: \$635 million BA: \$1 million		
USDA: Rural Business—Cooperative Service; Rural Business Program Account, Section 9007: Rural Energy for America Program (REAP) Grants (see above)							
Discretionary	\$0	\$0	\$0	\$0	\$0	Included in 9007 loan guarantee appropriation above PL: \$49 million BA: \$49 million	
Mandatory	\$26 million PL & BA	\$41 million PL & BA	\$40 million PL & BA	PL: \$38 million (USDA FY 2022 request) BA: included in loan program above	PL: \$49 million BA: \$49 million		
USDA: Forest Service, National Forest System, State and Private Forestry, Creating Incentives for Increased Use of Biomass from National Forest System Lands (3)							
Discretionary	N/A	N/A	N/A	\$20,000,000	\$39 billion along with authorization for an additional \$2.6 billion	(3) Please approve the President's request	This appropriation, for the first time, addresses the mandate in "Policies Relating to Biomass Energy" (per page 371 of H.R. 2471)

[Endnotes]

Please note:
 (U) *This program has neither met its potential nor its promise.* USDA is the Federal agency where the BioPreferred® Program sits. Yet USDA has yet to make a significant effort to purchase bio-based products and encourage other agencies to do so.

- **The USDA BioPreferred® Program enacted in the 2002 Farm Bill (Section 9002, Biomarkets Program, Energy Title IX)**, has been reauthorized every 5 years in each subsequent farm bill. It began in 2002 with a mandated appropriation of \$1 million which, with advocacy, has been increased to \$5 million annually. AFCC's request to increase the funding level to \$5 million annually would solve the implementation for the program.
 - **The program has two parts:**
 - **Certification** (a USDA label on product packaging shows how much carbon came from crops or is new carbon), and
 - **Procurement**: a biobased product is available as an alternative to a fossil-based product, by law, USDA and all Federal agencies and their contractors must buy the biobased product in lieu of fossil-based products.
 - *Certification is working; Procurement has not worked for just about any producer.*
 - Therefore, in the 2018 Farm Bill, AFCC's Executive Vice President advocated to move the program to a new home in USDA.
 - However, after 2 years, no changes have occurred on the procurement side with the new management; the law still is not being carried out, implementation of the program is still not occurring, there is no accountability, and the program is not functioning as Congress intended.
 - **If USDA is not purchasing biobased products, which is the Federal agency where the program sits, why would the other Federal agencies consider buying it?**
 - **Biobased product companies would like to expand their business in sustainability and a climate-smart platform**, but if they can't get the current biobased products sold, it is very difficult for them to justify to their board of directors to expand or even be in this space. We need a solution to this issue.
 - **USDA currently is purchasing petroleum-based office supplies** from distributors such as Office Max, Amazon, others, biobased products are not being purchased. Office supplies are everyday products which USDA and other Federal agencies should be purchasing routinely from their distributors.
 - **The BioPreferred Program has not been operating as Congress intended**, and now that Secretary Vilsack has been confirmed and we know that he has been supportive of the program, we would like Congress to add statutory language in the appropriations bill, the following information:
 - ✓ Quarterly, provide Congress a report, the procurement of biobased products from the catalogue on their website, *BioPreferred* (<https://www.biopreferred.gov/BioPreferred/faces/catalog/Catalog.xhtml>) which has all of the biobased products listed. What are the sales number and the actual biobased products sold? There is no transparency.
 - ✓ Provide purchases of low-hanging fruits, such as USDA certified office supplies (bioplastic binders, notepads, paper) and biobased cleaning products which USDA currently is purchasing from distributors like Office Max, Amazon, which are not biobased—this needs to occur within 90 days of receiving the letter from Congress. USDA will provide proof of purchase to Congress for these biobased products (how many and at what price) every quarter. The quarterly report should include all procurement of biobased products.
 - ✓ Modernizing the BioPreferred label with sustainability parameters such as carbon intensity score. The label has a beginning of life parameter on its label which is not based on sustainability.
 - **Biobased product companies would like to expand their business in sustainability and a climate-smart platform**, but if they can't get the current biobased products sold, it is very difficult for them to justify to their board of directors to expand or even be in this space. Some companies have been waiting almost 10 years. We need a solution to this issue.
 - ② Unlike previous farm bills, which provided mandated funding for the Section 9003 loan guarantee program for each year of the 5 year term of the farm bill, the 2018 Farm Bill provided only 2 years of mandated funding with discretionary funding of up to \$50 million per year authorized for each of the remaining years covered by the 2018 Farm Bill. **AFCC strongly recommends that the Section 9003 Loan Guarantee Program receive its full discretionary authorization of \$25 million for FY 2023.**
- This is a critical program: It is one of only two Federal loan guarantee programs that are available to bridge the "valley of death" between the final validation and demonstrated workability of a promising new concept, technology, or product and the ability to bring it to commercial realization.*
- Every project brought to fruition through this program creates jobs and economic development for its first commercial facility, as well as many additional jobs and economic development for local communities throughout the U.S.**, as the success of the first commercial facility leads to private-sector financing at multiple follow-on projects.
- Only after the concept, technology, or product has been proven at commercial scale, will private-sector investors and lenders find the project risks acceptable to further replicate and deploy the concept, technology, or product.*
- ③ **The appropriation of \$20 million under the Forest Service's National Forest System, State and Private Forestry account, to create incentives for increased use of biomass from National Forest Lands has far reaching significance:**
- First**, because it will remove dead and diseased wood and slash piles from logging operations from the National Forests which exacerbate and can lead to extreme fire hazards,
- Second**, because it begins to carry out, for the first time, the mandate in the "Policies Relating to Biomass Energy" (page 371 of H.R. 2471), which has been incorporated into every Consolidated Appropriations Act since FY 2018,
- Third**, because it helps facilitate responsible forest management, and
- Fourth**, because it recognizes biomass as a renewable energy source which:
- Using a liability that contributes to forest fires, increased carbon emissions that contribute to climate change, loss of wildlife habitats, loss of property, and ballooning firefighting budgets, As an asset to produce value-added products which can:*
- create jobs,
 - generate revenues and improve the economies of rural communities,
 - replace fossil-based products, and

[ATTACHMENT I]—CONTINUED
AFCC's 2023 Appropriations Requests
Key Program Summaries: Agriculture & Rural Development
AFCC's Priorities Are [Highlighted]
 Subcommittee: Agriculture & Rural Development
 Agency: U.S. Department of Agriculture (USDA)

Account/Program:	FY 2019 Appropriation	FY 2020 Appropriation	FY 2021 Appropriation	FY 2022 Appropriation	President's FY 2023 Budget	AFCC's FY 2023 Request	Notes
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- mitigate the impacts of climate change.
- Fifth**, because the USDA Forest Service has launched a robust, 10 year strategy to squarely address this wildfire crisis in the places where it poses the most immediate threats to communities, which was announced on January 18, 2022 by Agriculture Secretary Vilsack and Forest Service Chief Randy Moore.

See: <https://www.fs.usda.gov/news/releases/secretary-vilsack-announces-new-10-year-strategy-against-wildfire-crisis>

The strategy:

- Estimates that funding to remove hazardous fuels will range from \$1,000 to \$2,500 per acre
- the strategy calls for the Forest Service to treat up to an additional 20 million acres on national forests and grasslands and support treatment of up to an additional 30 million acres of other Federal, state, Tribal, private, and family lands
- The President's FY 2023 budget (see page 27) requests \$3.9 billion for Forest Service Wildland Fire Management, as well as an additional \$2.6 billion authorized by the suppression cap adjustment to carry out this initiative.

AFCC requests that the President's request of \$3.9 billion be appropriated along with an authorization of an additional \$2.6 billion.

117TH CONGRESS
1ST SESSION

H. R. _____ / **S.** _____

To provide grants for eligible entities to create Bioeconomy Development Opportunity Zone designations that enable local communities to utilize biomass for biofuel and energy development.

IN THE HOUSE OF REPRESENTATIVES or
IN THE SENATE OF THE UNITED STATES
_____, 2021

Mr./Ms. [SPONSOR (for him/herself, and [LIST OF INITIAL COSPONSORS])] introduced the following bill; which was referred to the Committee on _____

A BILL

To provide grants for eligible entities to create Bioeconomy Development Opportunity Zones to utilize local biomass resources and create jobs by de-risking investment and accelerating development of new renewable energy production facilities in distressed communities.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “BDO Zone Grant Program Act of 2021”

SECTION 2. BIOECONOMY DEVELOPMENT OPPORTUNITY ZONE GRANTS

(a) FINDINGS.—Congress finds the following:

- (1) Fifty-two million Americans live in economically distressed communities.
- (2) Many of these communities have substantial biomass assets—agricultural residues, wood fiber, food and farm waste that can be used to produce ground and aviation biofuel, renewable chemicals, biomass to power, biogas, biochar and other biobased products.
- (3) Ground and aviation biofuel is an immediately available path toward decarbonizing the transportation sector while driving rural economic development and growth, stabilizing feedstock prices, and providing additional markets for agricultural products.
- (4) United States farmers and forests are producing record amounts of feedstock for renewable fuels, but market disruptions and fluctuations due to the COVID–19 pandemic have created uncertainty and reduced markets for United States feedstock producers.
- (5) Biofuels, renewable chemicals, biomass to power, biogas, biochar and other biobased products which contribute to energy security, reduce air pollution, and support rural economic development, are an important market for United States feedstock producers.

(b) ESTABLISHMENT.—

- (1) [IN] GENERAL.—Not more than 180 days after enactment, the Secretary of Agriculture, working through the Administrator for Rural Business—Cooperative Service, shall, subject to appropriations, establish the “BDO Zone Grant Program.”

(c) **ELIGIBLE APPLICANTS.**—The Secretary may make a grant under this subsection to a partnership that—

(1) is composed of;

(A) entities representing a region composed of 1 or more rural areas, including—

(aa) except as provided in subparagraph (B), 1 or more of—

(i) a unit of local government;

(ii) a Tribal government; or

(iii) an authority, agency, or instrumentality of an entity described in item (i) or (ii); and

(B) a nonprofit or for-profit organization, including a public benefit corporation, an economic development organization, a community or labor organization, an institution of higher education, a community development financial institution, a philanthropic organization, an instrumentality of a state agency relevant to community and rural development, a cooperative extension, an institution in the Farm Credit System, and a local food policy council; and

(C) such other entities as the Secretary or the partnership may determine to be appropriate;

(2) does not include a member described in subparagraph (1)(A)(aa) but demonstrates significant community support sufficient to support a likelihood of success on the proposed projects, as determined by the Secretary; and

(3) demonstrates, as determined by the Secretary, cooperation among the members of the partnership necessary to complete comprehensive, asset-based rural development to align Federal, state, regional, and Tribal investment, while leveraging nongovernmental resources, to build economic resilience and aid economic recovery, including in communities impacted by economic transitions and climate change.

(d) **USE OF GRANT FUNDS.**—The use of grant funds provided under this section may be used for the following purposes;

(1) The creation of Bioeconomy Development Opportunity (BDO) Zone designations to support the development of new markets that will stimulate local and regional biobased economic development. This includes quantifying, scoring and issuance of ratings that reflect regional feedstock and infrastructure risk for use by bio-project development companies and capital markets.

(2) Supporting organizational operating expenses and planned BDO Zone economic development related to BDO Zone designation activities for which the grant was provided.

(e) **AMOUNT OF GRANTS.**—The Secretary will make grant awards to eligible entities, as described in subsection (d), of not more than \$200,000 per eligible applicant.

(f) **MATCHING REQUIREMENT.**—

(1) **IN GENERAL.**—Subject to paragraph (2), the recipient of a grant under this section shall contribute a non-Federal match of 25 percent of the amount of the grant, which may be satisfied through an in-kind contribution.

(2) **WAIVER.**—The Secretary may waive any portion of the matching requirement described in paragraph (1) on a finding that the recipient of the applicable grant is economically distressed.

(g) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Secretary \$20,000,000 for each of fiscal years 2023 through 2030 to carry out this section.

SUBMITTED QUESTIONS

Response from Hon. Xochitl Torres Small, Under Secretary for Rural Development, U.S. Department of Agriculture

Question Submitted by Hon. Gregorio Kilili Camacho Sablan, a Delegate in Congress from Northern Mariana Islands

Question. Secretary Torres Small, you mention in your testimony that USDA Rural Development is looking for creative ways to provide capital and technical assistance to communities that historically have not had resources like the Rural En-

ergy Savings Program. I respectfully request you consider the Northern Mariana Islands and other U.S. Territories, which all could benefit from additional support from Rural Development to promote clean energy, tackle the climate crisis, and cut costs for families and businesses.

Answer. The agency would welcome an opportunity to work with you, along with our colleagues in the CNMI and other Pacific communities to finance energy efficiency and renewable energy projects. RUS programs are fully open to Compact of Free Association States and the Commonwealth of Northern Mariana Islands (CNMI), Puerto Rico, Virgin Islands and American Samoa. The Rural Energy Savings Program (RESP) will lend funds to a utility at zero percent interest rates and the utility will then re-lend those funds to rate payers for energy efficiency measures with the utility paying RUS back over 20 years and consumers paying back the utility via an on-bill financing mechanism over 10 years at interest rates no higher than 5%. In addition to RESP, communities in the Pacific have also successfully applied for grant funding for renewable and other energy projects under the High Energy Cost Grant (HECG) program which statutorily targets communities with energy costs 275% above the national average. The challenge when it comes to serving some Pacific communities in need is that even at zero percent interest, utilities may not have sufficient resources to repay those loans. The HECG program can help but is typically funded at a modest level which in recent years has been at or near \$10 million.

USDA's Rural Development State office in Hawaii oversees many of our programs with Compact States and the CNMI and we are united in the field and at headquarters in our desire to support people in CNMI and throughout Pacific communities.

Response from John J. "Jay" McKenna III, Chief Executive Officer, Nacero, Inc.

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. Mr. McKenna, you mentioned that the Russian invasion of Ukraine accelerates the need for the United States to reduce our reliance on foreign oil. How would making gasoline from natural gas and renewable natural gas/biomethane help achieve this objective, especially when you stated that construction of each Nacero facility can take 4 years?

Answer. It takes two barrels of crude oil, $\frac{1}{3}$ of which is imported, to make one barrel of gasoline. The natural gas and renewable natural gas used to make Nacero gasoline is one hundred percent domestic. Nacero's Penwell plant will reduce demand for foreign crude oil by 208,000 per day, the same amount we were importing from Russia before the embargo. Facilities of this scale can't be built overnight but given the size of the reduction in foreign dependence, 4 years is a remarkably short time.

Question 2. Mr. McKenna, you stated that making gasoline from natural gas and renewable natural gas would result in lower greenhouse gas emissions. Can you please detail the sources of these savings and indicate how the substitution of fuel made in this manner could impact the U.S. and global greenhouse gas emissions?

Answer. Making gasoline from natural gas instead of crude oil cuts the lifecycle carbon footprint of the gasoline manufacturing process in half by avoiding the production of crude oil refinery byproducts, many of which are not needed in this country. Using renewable natural gas ("RNG") from farms, feedlots and landfills to make Renewable Gasoline prevents the raw release into the atmosphere of biomethane, which is 80 times more harmful over 20 years than carbon dioxide. A Nacero plant the size of Penwell that uses a feedstock mix of 75% conventional natural gas and 25% RNG could offset fifty million ton per year of carbon emissions. Four Nacero plants of this size with this feedstock mixture would offset the carbon emissions of Los Angeles.^{1*}

Question 3. Mr. McKenna, in your testimony, you wrote that the technology you intend to use has been proven. Can you please tell us where and when this technology has been used?

Answer. Nacero has exclusive rights in the lower 48 states to the Topsoe TIGAS™ natural gas to gasoline technology. A TIGAS™ system of identical size to the one Nacero is using has been in successful operation in Turkmenistan since 2019. The

¹ <https://www.wired.com/story/la-emissions-block-by-block/>, † CARB shows statewide emissions dropping about 1% per year (<https://ww2.arb.ca.gov/ghg-inventory-data>), † which would put the LA total at about 167M tons (down from 176M tons in the 2017 study).

* **Editor's note:** items annotated with † are retained in Committee file.

Turkmenistan Government, which owns the plant, is planning to add additional units.

Question 4. Mr. McKenna, you made some bold predictions about the economic impact of a Nacero plant on a local and regional economy. Can you please break down how the construction of a projects like the ones planned for west Texas and north-east Pennsylvania will generate a \$25 billion impact?

Answer. See the Bureau of Business Research, IC2 Institute, The University of Texas at Austin, “Economic Assessment of Nacero’s Planned Investment: State of Texas, Permian Basin, and Ector County Impacts, 2022–2077,” (2021), which estimates \$27.8Bn GDP impact to the regional economy through construction and operation. Similar results are expected elsewhere.

Question 5. Mr. McKenna, you stated that Nacero facilities will create enough renewable natural gas demand for up to 75–100 additional digesters. What is the environmental benefit from using renewable natural gas? What is the cost to develop this additional renewable natural gas capacity and how much income might the farmers receive from selling their biomethane?

Answer. The capture and use of biomethane prevents its raw release into the atmosphere, where, as indicated above, it is 80 times more harmful over 20 years than CO₂. A single Nacero facility that consumes 250,000 MMBtu/d per day of RNG would double the current 250,000 MMBtu/d U.S. demand for RNG and in turn create demand for 75 to 100 new digesters. Each digester costs \$35–\$50 million and generates about \$1.1 million of additional annual farm income.

Question 6. Mr. McKenna, you stated that construction of a Nacero plant would require thousands of jobs during the construction phase and hundreds of permanent jobs thereafter. What would you expect these jobs to look like and how would you support the development of these potential employees?

Answer. It will take an estimated 3,500 construction workers 4+ years to build a Nacero facility the size of Penwell and 450 operators to run it thereafter. This does not count the workers needed to capture and convert biomethane into renewable natural gas, or the workers needed for annual maintenance. Construction and operation will be accompanied by broad based training programs.

Question 7. Mr. McKenna, you talked about the importance of engaging the “everyday driver” in battling greenhouse gas emissions and said that you expect that Nacero gasoline with half the lifecycle carbon footprint will be sold at a competitive price. Can you please explain the importance of this strategy and how Nacero is able to help everyday drivers reduce global greenhouse gas emissions?

Answer. Global warming is a problem for everyone. The transportation sector is the largest contributor of greenhouse gas emissions in the United States and gasoline is the majority contributor to transportation sector emissions.² Nacero’s affordable, environmentally superior gasoline will be useable in today’s cars and trucks without modification and will make it possible for everyone, regardless of income, to fight climate change without having to buy a new car or pay more at the pump.

² <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>.

**A 2022 REVIEW OF THE FARM BILL
(INTERNATIONAL TRADE AND FOOD ASSISTANCE
PROGRAMS)**

WEDNESDAY, APRIL 6, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON LIVESTOCK AND FOREIGN AGRICULTURE,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:03 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Jim Costa [Chairman of the Subcommittee] presiding.

Members present: Representatives Costa, Spanberger, Hayes, Axne, Craig, Bishop, Johnson, DesJarlais, Rouzer, Kelly, Baird, Mann, Feenstra, Moore, and Thompson (*ex officio*).

Staff present: Lyron Blum-Evitts, Daniel Feingold, Josh Lobert, Lesly Weber McNitt, Ashley Smith, Caleb Crosswhite, Jennifer Tiller, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. JIM COSTA, A
REPRESENTATIVE IN CONGRESS FROM CALIFORNIA**

The CHAIRMAN. Good morning, everyone. I say good morning. The Subcommittee on Livestock and Foreign Agriculture will now come to order, and we are doing a hybrid Subcommittee hearing this morning, which is not unusual these days. We are, unfortunately, still not out of the woods of this horrific COVID pandemic that has impacted every fabric and region of American lives, over 900,000 lost around the world. So, we hope that we are going to pass some additional funding to protect American people, but that is not the subject of this morning's hearing.

The subject of this morning's hearing is a review of the farm bill as we set the table for next year's reauthorization, focusing today on international trade and food assistance programs. And it could not be more timely for a number of reasons, but the fact is the efforts to ensure that American agriculture, which it has traditionally done, provides a sort of support, not only to feed all of our people, but to also help in places of the world where there is hunger and food insecurity has been a tradition of previous farm bills. So, we are going to look at that.

The Subcommittee will receive testimony from the witnesses today. We have two panels of very good witnesses, and with consultation of the Ranking Member, pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members

of the full Committee may join us today. They are always welcome, and we appreciate their participation.

With that said, I will begin with my opening statement, and I want to thank Ranking Member Johnson and Members of the Subcommittee, and those that are participating on Zoom for your focus on international food assistance and trade programs within the farm bill. These programs are important for multiple reasons. They open and grow new markets for high-quality American food and agriculture; they save lives; they build local agriculture and food systems in developing economies; and they strengthen our foreign relations to advance shared values. As the oldest democracy in the world and still a beacon of light, these shared values that we have that begin with human rights, and the democratic institution that protects those human rights, our freedoms that we hold most dearly.

So, I think all of you know, I like to say as a third-generation farmer, still my primary source of income, that food, the food that we grow in America, is a national security issue. May not always look at it that way, but I think maybe at the beginning of the pandemic with the closure of restaurants and schools, people began to realize in seeing some scarcities on grocery shelves that, in fact, we can't take it for granted that the hardworking American farmers, ranchers, dairymen and -women, the farmworkers, every day do so much with less than four percent of the nation's population to put that food on America's dinner table every night. Let us never, ever take it for granted. And not only can we feed America with the highest quality of products, the most nutritious products, and every day we work hard to make it better at the most cost-effective level, although we know this inflationary spiral we are in right now is impacting the cost of those groceries. The fact is nobody, nobody, as that song goes, does it better than the American farmer, and stewards of our environment as well.

Obviously, I am very passionate about that from my own experience, but the fact is that we have problems. I wanted to send a copy of a story that I thought was very good. I bring it to your attention, and I would urge you to look at it. The title this morning is, *Russia's War on Ukraine: We See the Storm Coming: U.S. Struggles to Contain a Deepening Global Food Crisis*. And that is, in part, why we want to have this Subcommittee hearing here this morning. Putin's war on the Ukraine has been horrific, and I think we all have our very personal feelings about what we have seen and the courageous Ukrainian people fighting for their independence and their sovereignty. And he is a pariah, and I think he is a war criminal. But the fact is that the devastation that he has placed upon the people of Ukraine is a wake-up call for all of us, and I think he has, in a strange sort of way, brought us together. We needed to be together before this, but I think we will see continuing things from the testimony of our witnesses and the questions we ask about what this means. We have already seen the disruption of global grain and fertilizer markets. We have seen a significant downstream effect on countries reliant on Black Sea trade, and for this reason, I have signed on to a letter with many of my agricultural colleagues requesting that the USDA and the USAID use resources available in Bill Emerson's Humanitarian Trust to

help address food insecurity. The Trust is one of many vital farm programs that we look forward to hearing about today from our witnesses, but I believe that—and I have had conversations and I suspect many of my colleagues have with the Secretary of Agriculture and folks in the USDA that we are going to have to look at other resources with the Commodity Credit Corporation and others to provide funding to optimize American farmers and ranchers to use their land and resources that allows for surplus production in various commodities, especially in our grain and wheat areas that many countries don't have.

Though the international food assistance programs only make up a fraction, a fraction of one percent of our Federal budget, Americans still lead global donations and share a bounty through the farm bill programs, like Food for Peace, the McGovern-Dole, and Food for Progress. And so, I think a concomitant view, I believe, that we share is a moral obligation to provide in leading nations, to provide assistance to countries in need, and there are certainly many people who need our help.

According to the USDA's *International Food Security Assessment* from last summer, before the invasion of Ukraine, the number of food-insecure people in 2021 was estimated to be at 1.2 billion people: 1.2 billion people. There are seven billion people plus on the planet, so think about that. That is almost 20 percent, and that increase was due to a lot of factors, including COVID-19 and climate-related disasters, and conflict. And the conflict, of course, is bearing on us now.

The past 2 years have made it clear that our global integrated food system has some cracks, and I want to hear ideas from our two panels and from Members of the Committee on how we can deal with some of those cracks. The vulnerabilities as climate change continues to impact our production systems, exchanging technical knowledge with partnering countries, such as the Farmer-to-Farmer Program, Cochran fellowships can be helpful in food-insecure nations, make them more food efficient.

But food is just one assistance that agriculture connects us globally, and I think the farm bill trade promotion programs are something else that we need to think about in terms of next year's farm bill reauthorization. Market Access Program has had a tremendous benefit in every region of the country. I know it has in California. We are very strong advocates for the Market Access Program. Foreign Market Development Program, FMD, is also helpful for U.S. producers to develop commercial relationships and facilitate agricultural trade.

In addition, we are going to have to deal with the supply chain issue. I mean, it is still a problem and these empty containers are not good. We have two bipartisan pieces of legislation that many of us are supporting. Congressman Garamendi has that piece of legislation that we hope to get it worked out here that will deal with the demurrage issue and the delay issues on the empty containers, and I have legislation on anti-trust provisions.

So, it is kind of an all of the above approach. These programs when they work and to the degree we make them work more efficiently, they contribute to local growth and to agricultural support. Maintaining and deepening relationships is a vital part of engen-

dering economic development and shared values, and building future markets for American agriculture.

So, the two objectives that are advanced by the farm bill's Title III programs are not mutually exclusive in my mind. I think they are complementary, and I would like to hear our witnesses give their thoughts on that. So, we look forward to hearing from them on the full spectrum of Title III programs and delivering on their mission.

The witnesses on our two panels have an impressive amount of knowledge on how Title III farm bill programs impact their efforts in the world. I am excited to hear from them, and I know we will have a productive discussion about what is working and what is not working so well, and how we can improve it.

[The prepared statement of Mr. Costa follows:]

PREPARED STATEMENT OF HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Good morning. Thank you to our witnesses, Ranking Member Johnson, and the Members of the Subcommittee for convening today to discuss the international food assistance and trade programs within the farm bill. These programs are important for multiple reasons: they open and grow new markets for high quality, American food and agriculture products, they save lives, they build local agriculture and food systems in developing economies, and they strengthen foreign relations to advance shared values and security. I've been known to say that food security is national security and that linkage has never seemed stronger than it is today.

Unfortunately, we may be called on to do even more in the coming months as we grapple with the fallout from Putin's war in Ukraine. We have already seen disruption of global grain and fertilizer markets, which will have significant downstream effects on countries that are reliant upon Black Sea trade. For this reason, I signed onto a letter with many of my Agriculture Committee colleagues requesting that USDA and USAID use the resources available in the Bill Emerson Humanitarian Trust to help address food insecurity. The Trust is one of many vital farm bill programs that I look forward to hearing about and discussing today.

American farmers and ranchers are experts at optimizing their use of land and resources. Their efficiency allows for surplus production of commodities—a benefit that many countries do not have. Though international food assistance programs only make up a fraction of one percent of our Federal budget, Americans still lead global donations, sharing our bounty through farm bill programs like Food for Peace, McGovern-Dole, and Food for Progress.

I believe it is a moral obligation of leading nations to provide assistance to countries in need, and there are certainly many people who need help. According to USDA's *International Food Security Assessment* from last summer, the number of food-insecure people in 2021 was estimated at 1.2 billion, an increase of almost 32% (291 million people) from the 2020 estimate. They estimated that much of this increase was due to persistent effects of COVID-19, along with climate-related disasters, and conflict.

The past 2 years have made clear that our globally integrated food system has some cracks. And many of these vulnerabilities may worsen as climate change continues to wreak havoc on our agricultural production systems. Exchanging technical knowledge with partner countries, through initiatives such as the Farmer-to-Farmer program and the Borlaug and Cochran Fellowships, will be critical in helping food-insecure nations become more efficient.

Food assistance is just one way that agriculture connects us globally. Farm bill trade promotion programs such as the Market Access Program (MAP) and the Foreign Market Development Program (FMD) help U.S. producers establish commercial relationships and facilitate agricultural trade. These programs and the work they support are vital to opening new markets, but they also contribute to local growth of food and agriculture supply chains. Maintaining and deepening good relationships is a vital part of engendering economic development and shared values and building future export markets for American agriculture. These two objectives, which are advanced by the farm bill's Title III programs, are not mutually exclusive—they are complementary. I look forward to hearing from our witnesses about how the full spectrum of Title III programs are delivering on their mission.

The witnesses on our two panels today have an impressive amount of knowledge on how Title III farm bill programs impact the world. I am excited to hear from them and have a productive discussion about what is working and how we can improve these programs.

Before the introduction of our witnesses, I'd like to recognize the Ranking Member, Mr. Johnson of South Dakota, for any remarks he'd like to make.

The CHAIRMAN. So, before the introduction of the witnesses, I would like to introduce my friend and the Ranking Member of the Subcommittee, the gentleman from South Dakota, Mr. Johnson, for any remarks he would like to make.

**OPENING STATEMENT OF HON. DUSTY JOHNSON, A
REPRESENTATIVE IN CONGRESS FROM SOUTH DAKOTA**

Mr. JOHNSON. Well, thank you, Mr. Chairman, and I start by associating myself with so much of what you said, sir. I think as I watched the development of the 2018 Farm Bill from afar, it was clear to me how focused people on both sides of the aisle were on putting together the right Title III approach. And I think we all understand the value proposition, right? Clearly, it is needed for communities in need. Clearly, it can be helpful to producers, providing them an avenue for their hard-earned yields. But also, sir, you are right when you talk about shared values. Clearly, these Title III programs can help to advance shared values.

And Title III is not perfect, and I think as we understand amid pandemic, ongoing conflict, and weather-related disasters, it is good for us to have hearings like this so that we can look forward to what does Title III need to look like, not just today, but in the next farm bill as well.

As we talked, sir, before the hearing, you had noted that *POLITICO* article, and I, too, thought it was prescient. I thought it was on target for today. We see the storm coming. We see the storm coming, and we know that the war on Ukraine is adding shocks to an already fragile supply chain, and is exacerbating inflationary pressure.

I think we do see a storm coming. I think we see a global food crisis that could be every bit as dangerous as those we saw in 2007 and 2008, and I think we are looking forward to hearing from our witnesses about are there things that we can do to be more resilient, to be more prepared to try to shave off the most jagged edges of that storm that we see coming.

And of course, I am pleased to hear USAID will trigger the Bill Emerson Humanitarian Trust, and I do have concerns, and I know a number of my colleagues do, about how long it takes those commodities to enter the pipeline. And so, can the communities in crisis, can they wait until the fall, and hopefully, Ms. Charles can educate us more on what that pipeline will look like, and when that relief can actually be delivered.

And before I close, I just wouldn't feel right if I don't mention, again, how important it is for this Administration to prioritize trade: our trading programs, trading relationships, and as the Chairman mentioned, trade promotion programs. And one thing we need to do, our country, is make sure we get swift nominations of a Chief Ag Negotiator, and of course, also a USDA Under Secretary for Trade and Foreign Agriculture. Both of those positions are needed. They are uniquely positioned to be able to help in this

whole suite of conversations we are going to be having today. And frankly, it is hard to imagine a healthy American agricultural sector without new markets, expanded markets, stable markets, and those positions will help with that.

So, with that, I welcome our witnesses. I am excited about it, too, and Mr. Chairman, I yield back.

The CHAIRMAN. Well, I thank the gentleman from South Dakota for his statement and good words. I concur.

Chairman Scott wanted to be here, but is not able to, and I appreciate all the good work that he does in providing leadership for our Committee, and as common courtesy, we want to provide the Ranking Member an opportunity to weigh in as well for any opening statement he might like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Sure. Chairman Costa, Ranking Member Johnson, thank you so much for this Subcommittee hearing, and for your leadership. It is much appreciated. Thank you to our witnesses here. I had a chance to talk with each of you briefly here that are testifying on the first panel. Thank you for your leadership. The times that we are in are difficult times, and I think only going to get worse here, unfortunately, as we reach into the fall.

But good morning, everybody. My thanks to our witnesses for spending time with us this morning. This is a timely conversation. I look forward to learning from you and thinking more comprehensively about how we can best move forward.

We are at a crossroads. The geopolitical strife, weather-related disasters, pandemic-related impacts, and supply chain and inflationary crisis are wreaking havoc on the world, and especially affecting those in vulnerable countries and communities. And there are so many simultaneous emergencies at the moment, so I do want to take this opportunity to extend my appreciation to USDA and USAID, and all their partners for their tireless work to feed our world's hungry. You are truly doing God's work, and we thank you for that. And please pass that thanks along to your colleagues that work with you.

However, there is much more to do, and that is why this hearing is so important. The review of Title III will allow us to learn what is working, what isn't, and to provide direction as we head into deliberation of the 2023 Farm Bill. And this conversation will also be informed by the crisis in Ukraine. As almost everybody knows, Ukraine is a large producer of grain, and together, Russia and Ukraine supply 26 percent of global wheat exports, and Ukraine supplies 13 percent of the world's corn. Ukraine is also the largest global supplier of sunflower oil. Russia is a major global supplier of fertilizer ingredients, and oil and gas products. I think we have been meeting with some of the best thought leaders, trying to really map what we will see occur here into the fall. I am looking forward to hearing your analyses and assessments of this. But everything we have heard and really leads to a pretty grim conclusion that by this fall, we are going to see significant increase in hunger, starvation, and death by famine. And with that, a destabilization

that is going to result in violence and probably an increase in terrorism.

When you think about the Middle East, it gets almost $\frac{1}{2}$ of its food from the Ukraine and these farmers are now on the frontlines defending their nation, and the lack of supply of diesel fuel, we don't know when that winter wheat is going to get harvested, and we certainly don't anticipate where if this continues, where the spring planting will occur.

So, as a result of the disruption to exports, global commodity markets have spiked and will continue to experience volatility, and this volatility leads to higher commodity prices, but there remain very real concerns over fertilizer and pesticide availability, and their skyrocketing costs.

So, I echo my colleagues in hoping this hearing reveals more immediate solutions to these problems. Anything, obviously, I believe that we can do to provide tools to American farmers that they can increase their production at this point in time, which is challenging with inflation costs and availability of fertilizer and those things, but anything that we can do and that the President can do—and I think there are some things that he can do immediately—to help increase that production by American farmers of just additional bushels. Because I believe with every additional bushel above and beyond what we normally would produce is lives saved somewhere around the world at this point in time.

I also hope USDA and USAID can shed some light on any near-term executive actions this Administration is aiming to take, including the drawdown of the Bill Emerson Humanitarian Trust.

With that, Mr. Chairman, Mr. Ranking Member, thank you so much. I yield back.

The CHAIRMAN. All right. I thank the gentleman from Pennsylvania, and let me just underline a number of comments you made. I really believe that we are, as you noted, in a seminal moment in world history. You can look back at the 20th century and you can look at World War I and the Spanish Flu, you can look at the Depression and World War II, Vietnam War, and civil rights movement, but clearly, this time period that we are living in today, the last 4 and the next 4 years, historians will look back 25 years from now and they will make determinations. Did we make more good decisions than poor decisions? We are going to make both. Hopefully we will make more good decisions, and therein lies our challenge.

So, the chair would request that other Members who wish to submit their opening statements for the record will do so and will be accepted, and let us begin with our witnesses and their testimony to ensure that we have ample time for questions.

I am pleased to welcome two distinguished panels of our witnesses for our hearing today. Our witnesses bring a wide range of experience and expertise, and we want to thank you for joining us.

Our first witness on our first panel today is Mr. Daniel Whitley who serves as the Administrator of Foreign Agricultural Service at the United States Department of Agriculture, and we thank you for taking the time this morning. I think you understand, as all the witnesses do here, the regular order. We have 5 minutes, although your testimony I think, is much more detailed and we appreciate

that. You got the green light, then you got the yellow light, and then the red light. Nothing bad will happen, but we would like you to conclude.

So, Mr. Whitley, thank you. Please begin your testimony.

**STATEMENT OF DANIEL B. WHITLEY, ADMINISTRATOR,
FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF
AGRICULTURE, WASHINGTON, D.C.**

Mr. WHITLEY. Thank you, Mr. Chairman, Ranking Member Johnson, and Members of the Committee. I am pleased to appear before you today with my colleague from the U.S. Agency for International Development, Sarah Charles. I appreciate the opportunity to discuss the trade, market development, international food assistance, and capacity building programs and activities administered by USDA as authorized by the farm bill.

As Administrator of the Foreign Agricultural Service, I want to thank the Subcommittee for your continued support for the work of the agency and the Department. As the farm bill process moves ahead, I look forward to working with you and offer the assistance of our staff and to help and support your efforts.

Our prayers are with Ukrainian people as they deal with this unprovoked and unjustified attack, and we stand with the people of Ukraine during this tragic moment. Recently, Secretary Vilsack implored farmers to never take freedom for granted and highlighted the key role of farmers and ranchers in helping America prosper. Never have those words rung more true than today.

FAS is USDA's lead international agency linking U.S. agriculture to the world to enhance export opportunities and global food security. FAS supports producers with a network of agricultural economists, marketing experts, negotiators, and trade specialists in Washington, D.C. and nearly 100 international offices covering 180 countries. We are proud that our role in opening and maintaining markets has resulted in billions of dollars of additional U.S. agricultural exports for the benefit of American producers, and that the international food assistance programs and capacity-building activities administered by the FAS provide assistance that has helped millions of people worldwide.

In addition to our farm bill authorized programs, FAS also expands and maintains access to foreign markets for U.S. agriculture products by removing trade barriers, helping to enforce U.S. rights under existing trade agreements, and negotiating new agreements that benefit agriculture.

FAS works with foreign governments, international organizations, and the Office of the U.S. Trade Representative to establish international standards and rules to improve accountability and predictability for agricultural trade. We will continue to focus on maintaining and expanding access for U.S. agriculture exports through rebuilding trust with our partners and holding them accountable.

Exports of U.S. farm and food products to the world totaled \$177 billion in 2021, topping the 2020 total by 18 percent, and shattering the record set in 2014 of 14½ percent. For many agricultural products, foreign markets now represent more than ½ of total sales. U.S. ag exports support more than one million jobs here at

home, and contribute more than \$154 billion in additional economic activity.

To continue these impressive gains, we cannot rest. We must not rest. We must continue to refine and improve our longstanding farm bill authorized programs to ensure that they operate efficiently, effectively, equitably, and sustainably. Over numerous farm bills Congress authorized and refined an effective combination of ag market development and export credit guarantee programs. These programs are designed to develop markets, facilitate financing of overseas sales, and resolve market access barriers, all of which are goals central to the FAS mission.

The FAS partners with more than 70 cooperative groups representing a cross section of the U.S. food and agriculture industry, and manages a toolkit of farm bill authorized trade promotion programs to help U.S. exporters develop and maintain markets for all of our products.

Included under the umbrella of the farm bill programs are the MAP Program, the TASC Program, the EMP Program, along with several others. A newly independent study prepared by some of our independent research organizations concluded the effectiveness and the benefits of these programs. The largest market development program operated by FAS is the Market Access Program. Through MAP, FAS partners with nonprofit U.S. agriculture trade organizations, U.S. agricultural cooperatives, nonprofit state and regional trade groups, and state agencies to share the cost of overseas marketing activities, such as consumer promotion, market research, and trade show participation.

The 2018 Farm Bill makes available \$200 million of CCC funds annually for MAP. Funding levels for MAP have showed the impressive gains that can be made for U.S. agriculture by using these programs.

As I conclude, as Administrator of USDA's Foreign Agricultural Service, I am proud of our efforts to improve foreign market access to U.S. products, build new markets, improve the competitive position of U.S. ag in the global marketplace, and provide food aid and technical assistance to foreign countries. We have the opportunity to refine our programs when reauthorizing the farm bill Trade Title so that they make U.S. farm policy more efficient, equitable, and sustainable, while providing greater export opportunities to a vast range of markets for the benefit of U.S. farmers, ranchers, and other stakeholders.

This concludes my statement. I look forward to answering any questions you may have, and working with you to reauthorize farm bill programs that will facilitate U.S. agriculture exports and maintain our commitment to providing technical and food assistance to those around the world in need.

Thank you very much.

[The prepared statement of Mr. Whitley follows:]

PREPARED STATEMENT OF DANIEL B. WHITLEY, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Costa, Ranking Member Johnson, Members of the Subcommittee, I am pleased to appear before you with my colleague, Sarah Charles, Assistant to the Administrator, USAID Bureau of Humanitarian Assistance, U.S. Agency for International Development (USAID). I appreciate the opportunity to discuss the trade,

market development, international food assistance, and capacity building programs and activities administered by the United States Department of Agriculture (USDA) as authorized by the Agriculture Improvement Act of 2018 (2018 Farm Bill), the Food for Peace Act, the Agricultural Trade Act of 1978, and a host of other agricultural trade laws. As Administrator of the Foreign Agricultural Service (FAS), I want to thank the Subcommittee for your continued support for the work of the Agency and the Department. As the farm bill process moves ahead, I look forward to working with you and offer the assistance of our staff to help support your efforts.

As Secretary Vilsack noted before this Committee in January, the COVID-19 pandemic has been incredibly difficult on Americans in urban, rural, suburban, and tribal communities. Despite this unprecedented adversity, the Biden-Harris Administration is working to better position our agriculture and rural communities to compete in the global economy. For our part, we are working every day to meet this challenge by creating more and better export market opportunities for our farmers, ranchers, and producers.

Before I discuss our work to support trade and international food aid, I would like to start by sharing that our prayers are with the Ukrainian people as they deal with this latest unprovoked and unjustified attack by Russia. We stand with the people of Ukraine during this tragic moment for the world. For our part, USDA stands ready to step up. The Secretary is fully engaged on this issue alongside his G7 agriculture minister counterparts. He has empowered all of USDA to review the tools at our disposal to assist Ukraine. At the recent Commodity Classic, the Secretary implored farmers to never take freedom for granted and highlighted the fact that it is farmers and ranchers that helped America prosper. Never have those words rung true more than today.

Introduction

The Foreign Agricultural Service (FAS) is USDA's lead international agency, linking U.S. agriculture to the world to enhance export opportunities and global food security. FAS supports producers through a network of agricultural economists, marketing experts, negotiators, and trade specialists in Washington, D.C. and nearly 100 international offices covering 180 countries. We are proud that our role in opening and maintaining markets has resulted in billions of dollars of additional U.S. agricultural exports for the benefit of American producers and that the international food assistance programs and capacity building activities administered by FAS provide assistance that has helped millions of people worldwide.

The efforts of FAS employees, both in Washington and around the globe, combined with 2018 Farm Bill authorized market promotion programs, and in collaboration with the U.S. agricultural community, have contributed to some of the strongest agricultural export numbers on record. Exports of U.S. farm and food products to the world totaled \$177 billion in 2021, topping the 2020 total by 18 percent and eclipsing the previous record, set in 2014, by 14.6 percent. For many American agricultural products, foreign markets now represent more than half of total sales. U.S. agricultural exports support more than one million jobs here at home and contribute more than \$154 billion in additional economic activity. Nonetheless, in order to continue these impressive gains, we cannot rest. We must continue to refine and improve our longstanding farm bill authorized programs to ensure that they operate efficiently, effectively, equitably, and sustainably.

Trade Policy¹

FAS expands and maintains access to foreign markets for U.S. agricultural products by removing trade barriers and enforcing U.S. rights under existing trade agreements. FAS works with foreign governments, international organizations, and the Office of the U.S. Trade Representative (USTR) to improve accountability and predictability for agricultural trade. We will continue to focus on maintaining and expanding access to export markets for American producers through rebuilding trust with our partners and also holding them accountable.

The People's Republic of China (PRC), Mexico, and Canada continue leading as the top importers of U.S. agricultural products with record high values at \$33 billion, \$25.5 billion, and \$25.0 billion in calendar year 2021 respectively (up 25 percent, 39 percent, and 12 percent from 2020).

With a population of 1.4 billion and a middle class the size of the entire United States, the PRC is the largest market for U.S. agricultural exports. Following the 2018-2019 trade war with China, the Phase One Agreement provided some relief, allowing American agriculture to prove once again how effectively it could compete with a more level playing field. As a result of the Agreement and growing import

¹<https://www.fas.usda.gov/topics/trade-policy>.

demand, the United States continues to have strong, record high exports to the PRC of corn, wheat, beef, and poultry. The Phase One Agreement addressed a number of non-tariff measures affecting U.S. agricultural exports. However, we still face a number of barriers in that market, and the U.S. Government is engaging the PRC on next steps. While it is incredibly difficult to manage all the complexities of our relationship with the PRC, we recognize the importance of this market and will continue to represent and advocate for U.S. agriculture. At the same time, we are aggressively diversifying our global portfolio of export markets for U.S. agricultural products to other promising markets.

Canada and Mexico are two of the top three largest export markets for U.S. agricultural exports, accounting for a combined \$51 billion in 2021, up \$10 billion from 2020. While our closest neighbors are among our largest trading partners and benefit nearly every segment of American agriculture, these relationships are not without challenges. USDA is working diligently with our Mexican counterparts to ensure expanded market access for U.S. fresh potatoes. USDA, in close coordination with USTR and industry, is pressing Mexico at every level to ensure they live up to commitments made by their regulator to USDA and this longstanding issue is soon resolved. We are also monitoring Mexico's treatment of biotechnology products very closely and pressing Mexico to maintain a transparent, science- and risk-based regulatory approval process. With respect to our northern neighbor, the recent decision by the USMCA dispute settlement panel on Canada's allocation of dairy tariff rate quotas is an important step for the U.S. dairy sector to realize the full benefits of the USMCA. We will continue to press for the full, fair, and timely access for U.S. dairy exports to Canada that the United States secured in the USMCA negotiations and hold Canada accountable to the commitments made in the USMCA.

In addition to mature and traditional markets, USDA is also paying attention to opportunities in the Indo-Pacific region. President Biden announced in October 2021 that the U.S. is developing an Indo-Pacific Economic Framework with regional allies to deepen economic relationships in the region and coordinate approaches on addressing global economic challenges such as ensuring fair and resilient trade, insufficient or deteriorating infrastructure, and supporting clean energy. Although it's not a traditional trade agreement, the Framework is the beginning of a process that could bring increased opportunities for U.S. agriculture. We have been interested in this region for some time so we welcome the opportunities an enhanced focus on this region could bring for U.S. agriculture and market diversification efforts. In 2021, 16 of the 25 largest U.S. agricultural export markets were in the Asia-Pacific region, including fast growing markets in Southeast Asia. USDA is turning senior level attention to this region and will continue to consult with USTR on what agricultural trade barriers, other than tariffs, we could seek to address in the Framework and how we can advance U.S. exports to this important region.

Africa remains a continent of untapped potential for U.S. agricultural exports. In 2021, only one African country (Egypt) was in the United States' top 25 agricultural export markets, and only two additional countries (Nigeria and Morocco) were in the United States' top 50 agricultural export markets—but we expect this to change significantly in the future. U.S. agricultural exports to Africa totaled close to \$5.6 billion in 2021, with soybeans, wheat, and poultry meat and products as the top three products. A key development for trade across Africa is the 2019 ratification of the African Continental Free Trade Area (AfCFTA) that aims to create a continental market for goods and services with a harmonized trade facilitation regime. AfCFTA will be one of the largest trading blocs in the world once trade negotiations conclude over the next couple of years and the AfCFTA is fully implemented. USDA shares many of AfCFTA's objectives, including lowering barriers and diversifying trade. In these ways, the AfCFTA presents a long-term positive opportunity for U.S. exporters seeking to gain market access in Africa.

Market Development and Export Assistance

Over numerous farm bills, Congress authorized and refined an effective combination of agricultural market development and export credit guarantee programs. These programs are designed to develop markets, facilitate financing of overseas sales, and resolve market access barriers—all of which are goals central to the FAS mission. We must open, expand, and maintain access to foreign markets, given 95 percent of the world's consumers live outside the United States. FAS partners with more than 70 cooperator groups representing a cross-section of the U.S. food and agricultural industry and manages a toolkit of farm bill-authorized trade promotion programs to help U.S. exporters develop and maintain markets for hundreds of agricultural products. FAS also supports U.S. agricultural exporters through export credit guarantee programs and other types of assistance. Included under the umbrella of the Agricultural Trade Promotion and Facilitation Program as provided in

the 2018 Farm Bill are the Market Access Program (MAP), Foreign Market Development Cooperator Program (FMD), Technical Assistance for Specialty Crops (TASC), and the Emerging Markets Program (EMP). These programs, in conjunction with participation at USDA-sponsored international trade shows and Agribusiness Trade Missions, not only assist U.S. agricultural producers market commodities overseas, but bolster their overseas in-country presence, helping make sales and build demand for U.S. products. Applicants to the FAS market development programs submit their applications through the Unified Export Strategy database system (UES). The UES allows applicants to submit and manage holistic marketing plans that outline their proposed foreign market development strategies and request funding under each of the FAS market development programs, facilitating input of strategic and tactical planning and financial information into a single, coordinated system.

Market Access Program (MAP)

The largest market development program operated by FAS is the Market Access Program (MAP). Through MAP, FAS partners with nonprofit U.S. agricultural trade organizations, U.S. agricultural cooperatives, nonprofit State Regional Trade Groups, and state agencies to share the costs of overseas marketing activities, such as consumer promotion, market research, and trade show participation. The 2018 Farm Bill maintained the available \$200 million of Commodity Credit Corporation (CCC) funds annually for MAP. Funding levels for MAP have not increased in over a decade. That amount is more than matched with industry contributions to aid in the creation, expansion, and maintenance of foreign markets for hundreds of U.S. agricultural products. A range of U.S. commodities, from California prunes and almonds to South Dakota beef and soybeans, to Georgia poultry and cotton, dairy and timber from the Northeast, and apples and pears from the Pacific Northwest, all benefit from MAP. In FY 2022 MAP provided funding to 73 U.S. agricultural trade associations, State Regional Trade Groups, state agencies, and agricultural cooperatives. For perspective, the EU Central Fund, Common Market Organization investment, and individual investments of the Governments of Italy, France, Germany, and Spain, combined are estimated to be more than double the combined funding of MAP and FMD. A 2017 competitor study, led by the Wine Institute and MAP funding, determined the EU increased its investment in agricultural export promotion to \$443 million and forecasted its investment would increase to \$555 million in 2019. This study is currently being updated by the USA Poultry and Egg Export Council using MAP funds and is expected to be completed later in 2022.

A few MAP examples I would like to highlight for you today include the California Table Grape Commission, which has used MAP to support in-store sampling, point-of-purchase materials, themed promotions, mascots, and retail promotional displays in Mexico that drew in customers and helped California table grape exports reach a record \$116.5 million in Mexico in 2020. In addition, the California Walnut Commission used MAP funds to support an online consumer campaign in Germany demonstrating how walnuts are the ideal ingredient in home bread-making, and we saw a nearly 70,000 MT of exports to Germany (valued at nearly \$224 million) in September 2019 through August 2020, up 46 percent from the previous year.

Foreign Market Development Cooperator Program (FMD)

The Foreign Market Development Cooperator Program (FMD) is another FAS-administered market development program reauthorized by Congress in the 2018 Farm Bill. FMD is a cost-share program that aids in the creation, expansion, and maintenance of long-term export markets for U.S. agricultural products. The 2018 Farm Bill maintained the annual funding level for FMD at \$34.5 million in CCC funds. The program fosters a market development partnership between FAS and U.S. agricultural producers and processors who are represented by nonprofit commodity or trade associations known as cooperators. Under this partnership, FAS and each cooperator pool their technical and financial resources to conduct overseas market development activities. FMD-funded projects generally address long-term opportunities to reduce foreign import barriers or expand export growth opportunities. For example, FMD supported projects might include efforts to reduce infrastructure or historical market impediments, improve processing capabilities, modify codes and standards, or identify new markets or new uses for the agricultural commodity or product. In FY 2022 FMD provided funding to 25 U.S. agricultural trade associations.

As a particular example, thanks to FMD funding, U.S. Wheat Associates can maintain experienced technical staff to serve customers in Indonesia and around the world. Technical assistance and trade servicing are critical to U.S. Wheat's marketing strategy, demonstrating how customers can meet their product needs economically by blending various U.S. wheat varieties. This technical support also

helps to resolve potential market disruptions like mitigating a potential trade disruption in Indonesia due to fungal spores. Technical support provided the mill with confidence to manage the situation and prevented disruption in U.S. wheat exports that reach over 1 MMT annually.

Technical Assistance for Specialty Crops (TASC) Program

U.S. exports of specialty crops reached \$22.5 billion in fiscal year (FY) 2020, accounting for 15 percent of total U.S. agricultural exports. Tree nuts represented more than 1/3 of FY 2020 specialty crop exports. Other specialty crops like fruits, vegetables, dried fruits, horticultural crops, wine, and nursery crops are increasing in export value. Despite these increases, trade barriers such as burdensome requirements related to pre-export plant health inspections, low or missing pesticide maximum residue levels, labeling, or quality certification may discourage some U.S. specialty crop producers from shipping products overseas.

Utilizing the Technical Assistance for Specialty Crops (TASC) program, USDA is committed to assisting U.S. agricultural stakeholders to overcome trade barriers that deter U.S. specialty crop exporters and help them compete in the global marketplace. First authorized in the 2002 Farm Bill, FAS administers the current TASC program to fund projects that address existing and potential SPS and technical barriers to trade that may affect U.S. specialty crop exports. TASC activities must benefit the industry at large rather than a specific company, and applicants must provide a clear strategy for overcoming trade barriers and market access issues. In line with the changes to the program made in the 2018 Farm Bill, TASC awards are generally granted for a project period not exceeding 5 years, with the opportunity for an extension based on a determination of the effectiveness of continued funding.

For example, a TASC grant for the Almond Alliance of California (AAC) is helping establish new export markets for whole almond hulls in Asia, including China and Korea. Almond hulls are a commercially established feed ingredient in California, with growing supply and hold potential for feed use in Asia's dairy sector, increasing feedstuff options and reducing feeding costs. In another project, TASC funding helped the California Table Grape Commission monitor and report on non-precleared product shipments to Australia. Without this funding, California table grape shippers would have had to gather information on an individual basis which would have been difficult for small- to mid-size shippers. This reporting, funded by TASC, helped improve the on-arrival process, minimize problems during the shipping season, and allowed for broad distribution of actionable information to California table grape shippers exporting to the Australian market.

Emerging Markets Program (EMP)

EMP provides grants to eligible U.S. private or government entities to conduct assessments of the food and rural business system needs of emerging markets, make recommendations on how to enhance the effectiveness of such systems, including potential reductions in trade barriers, and conduct technical assistance to enhance the effectiveness of such systems. For this program, emerging markets are defined as any country, foreign territory, customs union or other economic market that "is taking steps toward a market-oriented economy through the food, agriculture, or rural business sectors of its economy," and "has the potential to provide a viable and significant market for United States agricultural commodities." Private, Federal, and state organizations are eligible to participate in EMP. For Fiscal Year 2021, the EMP program supported 26 agricultural export promotion projects with funding totaling \$3.74 million.

A great example of EMP work is a 2021 Cranberry Marketing Committee project that implemented a multifaceted culinary training program for more than 900 students across India to familiarize these young culinary professionals with U.S. cranberries. The training sessions concluded with a competition in which the students were asked to prepare their own unique dish using U.S. cranberries, and the dishes were judged by an expert panel of chefs. In a post-training survey, 97 percent of the participating students indicated that the training heightened their awareness of U.S. cranberries, with nearly 88 percent stating that they would use U.S. cranberries in future recipes. Moreover, three of the five participating institutes plan to continue U.S. cranberry education in the years to come, helping to establish U.S. cranberries' presence within India's expansive and growing foodservice sector and leading to increased export opportunities for the entire U.S. cranberry industry.

Export Credit Guarantee Program (GSM-102)

The GSM-102 program increases sales of U.S. agricultural commodities to international markets by facilitating the extension of needed trade financing. Over 130 countries—mainly developing countries and emerging markets in Latin America, Asia, and Africa and the Middle East—are targeted destinations under the program.

In 2021, the GSM-102 program supported \$2.1 billion in U.S. agricultural commodity exports, including exports of corn, soybeans, soybean meal, wheat, rice, cotton, and other commodities. Significant export markets included Mexico, Colombia, Honduras, Guatemala, South Korea, and Egypt.

Accomplishments for 2021 include bringing Bangladesh in as a new entrant to the program, which resulted in the export of more than \$6 million in sales of U.S. cotton and \$22 million in sales of U.S. soybeans to that market. USDA now has five Bangladeshi banks participating in the GSM-102 program.

Data and Analysis²

FAS's network of global contacts and long-standing relationships with international groups contribute to the Agency's unique market intelligence capacity. FAS analysts provide objective intelligence on foreign market conditions, prepare production forecasts, assess export opportunities, and track changes in policies affecting U.S. agricultural exports and imports and support U.S. foreign policy around the globe. The Agency is trusted by U.S. decision-makers and entities worldwide to provide relevant, sound, and reliable information related to foreign agricultural markets, international trade barriers, crop conditions, and related policy developments. Through market analysis in Washington and reporting from FAS overseas offices on foreign production and demand, FAS contributes to the USDA economic information system establishing official estimates of world agricultural supply and demand that drives trading on commodity markets worldwide. FAS maintains key public-facing databases to provide convenient access and up-to-date international market information to inform strategy and business decisions. Collecting and communicating market information is invaluable for U.S. exporters, as it provides a level playing field for U.S. organizations working abroad and supports these organizations in identifying new market opportunities. Through our Global Ag Information Network (GAIN) this type of information is gathered and reported by our 70 posts overseas and published on the FAS website. In 2021, we published over 3,000 reports that were viewed 2.6 million times.

FAS information helps producers and others make informed decisions during fluid and challenging situations by providing data and analysis to make sense of complex global commodity fluctuations, such as those we are currently seeing in the wake of the Russian invasion of Ukraine.

Food Security and Capacity Building³

In addition to the important work FAS does to promote U.S. exports and build trade capacity for American agriculture, FAS also leads USDA's efforts to help developing countries improve their agricultural systems and build their trade capacity to receive our exports or send us products the U.S. needs to meet consumer demand. From selecting countries and priorities to reviewing proposals, monitoring agreements, evaluating project performance, and reporting progress, USDA's food assistance staff coordinate with colleagues across the Department and the U.S. Government, particularly USAID, as well as with donors, stakeholders, and recipients to enhance global food security. Collaboration with our interagency partners does not occur just in Washington—our programs benefit from collaborating with FAS Attachés in our embassies around the world and with foreign officials and stakeholders.

USDA administers three international food assistance programs authorized by the farm bill. These include the McGovern-Dole International Food for Education and Child Nutrition Program (McGovern-Dole); the Food for Progress Program (FFPr); and the USDA Local and Regional Food Aid Procurement Program (USDA LRP). USDA also manages the Bill Emerson Humanitarian Trust (BEHT), which serves as a backstop reserve of funds for the USAID-administered Food for Peace Title II program if the USAID Administrator determines that funds available for emergency needs under Title II for a fiscal year are insufficient to meet emergency needs during the fiscal year. These programs support international assistance and development activities that alleviate hunger and improve nutrition, education, and agriculture in some of the world's poorest countries. FAS's non-emergency food assistance programs help meet recipients' nutritional needs and support agricultural development and education.

McGovern-Dole

This year the McGovern-Dole Program will celebrate its 20th anniversary, which is a significant achievement and a testament to the value of the program. USDA

² <https://www.fas.usda.gov/data>.

³ <https://www.fas.usda.gov/topics/food-security>.

is proud to administer the McGovern-Dole Program and continue the legacy of its two great champions of U.S. agriculture and international food assistance—the late George McGovern and Robert Dole. Since its inception in the 2002 Farm Bill, the McGovern-Dole Program has helped feed and educate more than 31.1 million children in more than 48 countries. Over the past 20 years, the McGovern-Dole Program has grown in size and scope to support quality school meals around the world. Through the McGovern-Dole Program, USDA has worked to build the capacity of host governments and communities to transition McGovern-Dole supported schools to their national school meals programs. For example, USDA had been supporting school feeding in Kenya through McGovern-Dole since 2004, and, in June 2018, the remaining balance of McGovern-Dole commodities was completely handed over to the Government of Kenya’s National School Meals Program, thus formalizing the graduation of school feeding activities entirely to the Government of Kenya. In November 2021, despite the challenges of the COVID-19 pandemic, USDA celebrated the handover of school feeding activities in 915 primary schools in Laos that had been supported by McGovern-Dole since 2008 to the Government of Laos’ National School Meals Program.

McGovern-Dole uses commodities grown by American farmers to enhance food security; improve literacy (especially for girls); and strengthen the nutrition, health, and dietary practices of school-aged children, mothers, and families. McGovern-Dole awards to fund projects are made annually to implementing partners—private voluntary organizations (PVOs) and international organizations like the World Food Programme. Following an objective proposal review process, USDA selects and funds the strongest proposals based on rigorous criteria, including demonstrated experience, ambitious goals and outcomes, established capacity to coordinate with U.S. Government agencies and local governments, detailed commodity distribution plans, and thorough graduation and sustainability plans. School meals are made possible through a combination of U.S. donated food commodities, some food commodities procured locally or regionally, and technical assistance provided by qualified entities to help each project achieve success. In countries where McGovern-Dole projects are implemented, USDA works to assure that host country governments contribute to school feeding in many ways and from a variety of levels, from local to national. Frequent contributions include internal transportation of commodities, provision of land for project infrastructure, construction materials, in-kind labor, food accompaniments, and more.

In FY 2021, USDA funded ten McGovern-Dole proposals for new projects valued at \$248 million in Benin, Burkina Faso, Guatemala, Kyrgyzstan, Laos, Liberia, Madagascar, Republic of Congo, Senegal, and Sierra Leone. A total of 46,770 metric tons (MT) of donated U.S. commodities will be provided over the term of these 4 to 5 year projects. In addition, USDA awarded \$20 million in prior year McGovern-Dole funding to strengthen and expand three active agreements in Guatemala and Honduras in alignment with Administration priorities on addressing the root causes of out-migration in Central America. Including the ten new projects funded in FY 2021, McGovern-Dole now has a total of 55 active projects in 31 countries valued at close to \$1 billion across the life of the projects.

In FY 2021 alone, McGovern-Dole projects:

- directly benefited more than 4.5 million children and community members;
- fed nutritious school meals to over 2.1 million food-insecure children;
- distributed take home rations to over 2.1 million children and community members during the global COVID-19 pandemic;
- trained over 11,200 Parent Teacher Associations in how to champion education in their communities;
- educated over 10,800 teachers, helping them to work to improve instruction and literacy;
- rehabilitated or constructed more than 5,100 facilities, including latrines, kitchens, handwashing stations, storerooms, and classrooms; and
- worked in over 14,400 schools to enhance the quality of education that children receive.

The 2018 Farm Bill provided that USDA shall use not more than ten percent of the funds made available for McGovern-Dole for the procurement of local and regional agricultural commodities. The FY 2021 agricultural appropriations act provided that not less than \$23,000,000 will remain available until expended for the local and regional procurement of agricultural commodities under McGovern-Dole. For FY 2021, each of the ten awards includes a local and regional commodity procurement component. The integration of the local and regional procurement compo-

ment into McGovern-Dole is a welcome addition that allows project implementers to improve the dietary diversity of school-age children through including more fresh fruits, vegetables and animal protein into the daily school meal, and strengthens the capacity of local and regional farmers, cooperatives, processors, and agribusinesses to provide high-quality commodities in support of sustainable school meal programs.

Food for Progress

The Food for Progress Program (FFPr) was authorized by the U.S. Congress in the Food Security Act of 1985. FFPr has two principal objectives: to improve agricultural productivity in developing countries and emerging democracies and to expand trade in agricultural products. It may receive funding through either Food for Peace Title I appropriations or CCC financing. The FFPr statute provides that no more than \$40 million of CCC funds may be used annually for non-commodity costs such as freight costs, which limits the amount of shipped commodities, particularly in years with high shipping costs. Donated U.S. agricultural commodities are shipped to recipient countries and sold on the local market in a process referred to as monetization. USDA enters into cooperative agreements with eligible organizations to use the proceeds to implement field-based projects generally to support agricultural, economic, or infrastructure development projects and programs can also be targeted at hunger and malnutrition. FFPr projects have trained farmers in animal and plant health, improved farming methods, developed road and utility systems, established producer cooperatives, provided microcredit, and developed agricultural value chains. FFPr project implementers have included PVOs, foreign governments, universities, and intergovernmental organizations.

In FY 2021, a total of 22 sales of donated U.S. commodities, organized into 19 shipments, were made by project implementers to buyers in 18 countries. The commodities included crude degummed soybean oil, milled rice, soybean meal, yellow soybeans, hard red winter wheat, and dark northern spring wheat. A total of 440,890 MT of U.S. commodities with a commercial value of nearly \$210.52 million was donated in FY 2021, representing the highest totals for tonnage and value in more than a decade. During FY 2021, activities conducted by active projects reached more than 370,000 direct participants. As a result of FFPr project activities, more than 199,000 individuals applied improved agricultural management practices or technologies to over 569,000 hectares of land. Access to working capital and credit are other significant components in expanding participation in agricultural sectors in emerging markets, and last year FFPr project activities resulted in access to more than \$84 million of financing for farmers and cooperatives.

For example, the Food for Progress Malawi project completed in 2021, implemented by Land O'Lakes Venture³⁷ and valued at \$15 million, assisted over 39,000 farmers. Under this project, small-holder producers received assistance in organizing cooperative farmer-based organizations to assist them in selling their produce. The project's interventions have helped horticultural producers and processors be more competitive in both local and regional markets, leading to over \$18.4 million in sales and trade of over 63,000 metric tons of horticultural produce. Additionally, during the life of the project, 10,377 loans valued at \$699,879 were disbursed.

Local and Regional Food Aid Procurement Program (USDA LRP)

First authorized as a permanent program in the 2014 Farm Bill, USDA LRP was designed to provide a complementary mechanism for delivering international food assistance. In accordance with Congressional intent, preference for funding under USDA LRP has been given to entities implementing active projects under McGovern-Dole. As part of the 2018 Farm Bill, Congress authorized a new local and regional procurement component within McGovern-Dole. Thus, USDA LRP has not received appropriated funds since FY19 and local and regional procurement is now conducted directly through McGovern-Dole authority. The objectives of local and regional procurement include strengthening the ability of local and regional farmers, community farmer groups, farmer cooperatives and associations, processors, and agribusinesses to provide high-quality commodities. Local and regional procurement can enhance organizations' abilities to procure such commodities in support of school feeding programs, provide technical and management expertise, and, in coordination with USAID, help expedite provision of safe and quality foods to populations affected by food crises and disasters. Last funded in FY 2019 before the local and regional procurement component was folded into McGovern-Dole, the USDA LRP Program funded three projects to support McGovern-Dole activities in Burkina-Faso, Cambodia, and Nicaragua. USDA LRP was used to purchase local commodities such as fruits and vegetables, increase the acceptability and palatability of nutritious meals, strengthen supply chains, and boost local support for sustainability, as well

as strengthen the ability of local host governments to take ownership of McGovern-Dole projects. During FY 2021, USDA had seven continuing USDA LRP agreements with project implementers in seven countries, including two agreements in which all project activities were concluded. The total number of beneficiaries reached by all seven active USDA LRP projects in FY 2021 was 139,431.

Fellowship Programs and Capacity Building

USDA invests in the future of developing countries by helping them strengthen their agricultural institutions and regulatory systems, encouraging compliance with international norms and fostering an environment conducive to agricultural growth. Before developing countries can become customers for U.S. agricultural products, they must first become politically, economically, and socially stable. The lack of economic development, particularly in fragile and strategic countries and regions, results in economic and political instability which can pose a national security threat to the United States. FAS-sponsored fellowship programs and exchanges enable international researchers, policymakers, and agricultural specialists to work alongside their U.S. counterparts, acquiring knowledge and skills to help build their countries' agricultural sectors. FAS administers three Congressionally authorized fellowship programs: the Borlaug International Agricultural Science and Technology Fellowship Program (Borlaug); the Cochran Fellowship Program (Cochran); and the International Agricultural Education Fellowship Program (IAEFP).

The namesake of Nobel Laureate Dr. Norman E. Borlaug, the Borlaug program promotes agricultural productivity, food security, trade, and economic growth by providing training and collaborative research opportunities to early and mid-career scientists, researchers, or policymakers from developing and middle-income countries. Since the program's inception in the 2008 Farm Bill, USDA has supported more than 920 Borlaug Fellows from 69 countries. Cochran operates in middle-income and emerging market countries, providing training opportunities in the U.S. for senior and mid-level specialists and administrators working in agricultural trade and policy; agribusiness development; management; animal, plant, and food sciences; extension services; agricultural marketing; and many other areas representing the public- and private-sectors of interest to agriculture. Since 1984, Cochran has provided training for over 19,000 international Fellows from 127 countries worldwide. Opportunities to host Cochran Fellows are circulated through the U.S. Land-Grant University System, USDA, other Federal Government agencies, the U.S. Agricultural Export Development Council, U.S. private agribusinesses, and agricultural consultants. The IAEFP was authorized under the 2018 Farm Bill to provide fellowships to eligible U.S. citizens to assist developing countries in establishing school-based agricultural education and youth extension programs. The program was created to (1) develop globally minded United States agriculturists with experience living abroad; (2) help meet the food and fiber needs of the domestic population of eligible countries; and (3) strengthen and enhance trade linkages between eligible countries and the United States agricultural industry. Congress appropriated \$1 million in FY20 for the inaugural IAEFP program and an additional \$1 million in FY21 and FY22. FAS awarded FY20 funds to Texas A&M University and Catholic Relief Services for programming in Ghana and Uganda, respectively. Due to the ongoing global pandemic, selected fellows were restricted from traveling, thus their fellowships were delayed. However, in early fall 2021, nine fellows arrived in Ghana and have been busy in their host communities providing technical advice on improving agricultural production, increasing knowledge of the importance of robust agricultural extension programs, and sharing their experiences with youth-based agricultural organizations, such as 4-H. Later this spring, an additional nine fellows are expected to arrive in Uganda to begin their fellowships.

Conclusion

As Administrator of USDA's Foreign Agricultural Service, I am proud of our efforts to improve foreign market access for U.S. products, build new markets, improve the competitive position of U.S. agriculture in the global marketplace, and provide food aid and technical assistance to foreign countries. I believe Congress has an important opportunity to refine these trade programs when reauthorizing the next farm bill so that they make U.S. farm policy more efficient, effective, equitable, and sustainable while providing greater export opportunities to a vaster range of markets for the benefit of U.S. farmers, ranchers, and other stakeholders.

As the situation continues to unfold in Eastern Europe, it is clear that maintaining trading relationships globally will help benefit all nations at a time that food security is in question for many. Trading means sharing. And sharing will help all countries and all regions of the globe get through these difficult times successfully. We stand with the people of Ukraine during this tragic moment for the world. For

our part, USDA stands ready to step up and assist and to help facilitate the global relationships and the partnerships that will be absolutely vital going forward.

This concludes my statement. I look forward to answering any questions you may have and working with you to reauthorize farm bill programs that will facilitate U.S. agricultural exports and maintain our commitment to providing technical and food assistance to those around the world in need. Thank you.

The CHAIRMAN. Thank you, Administrator Whitley, for those good words and your testimony. I will make sure to put in some good points to the Secretary on your behalf. Thank you.

Our next witness on the panel is Sarah Charles. Sarah Charles serves as the Assistant to the Administrator at the Bureau of Humanitarian Assistance at the United States Agency of International Development, and it directly relates to the comments that we have already heard this morning by a number of us as to the potential challenges that we are facing this year, and I believe into next year, as it relates to the potential humanitarian crisis for food that many of us fear is going to only heighten as a result of the factors that we are dealing with.

So, Ms. Charles, please begin your testimony.

STATEMENT OF SARAH CHARLES, ASSISTANT TO THE ADMINISTRATOR, BUREAU FOR HUMANITARIAN ASSISTANCE, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, WASHINGTON, D.C.

Ms. CHARLES. Thank you. Chairman Costa, Ranking Member Johnson, distinguished Members of the Subcommittee, thank you for the opportunity to discuss the U.S. Agency for International Development's food assistance programs, and thank you to Administrator Whitley for being with me here today.

Most importantly, thank you for your collective commitment to help alleviate hunger and improve food security throughout the world. Your support has helped us reach the most vulnerable in times of need, and helped communities around the world build resilience in the face of multiple shocks. And as you both alluded to, it is also a strong demonstration of U.S. leadership and shared values throughout the world.

USAID's food assistance programs are more important than ever. Global food insecurity levels continue to break records due to the confluence of conflict, climate impacts, and the economic impacts of the ongoing COVID-19 pandemic. At the beginning of 2022, the United Nations estimated there were 274 million people in need of assistance, a 60 percent increase over 2020, and this was before Russia's unprovoked invasion of Ukraine.

Russia's invasion has caused intense suffering and displacement in Ukraine and in the region, and it is already impacting food security around the world. As a result of the war, we could face another 10 to 20 percent rise in commodity prices due to supply chain disruptions and export restrictions.

In the Yemeni city of Aden, the price of a piece of bread increased by 62 percent in less than 1 week after the start of the war. In Lebanon, domestic food price inflation has now climbed to a record 483 percent. We are extremely grateful to Congress for the generous funding provided to USAID through the omnibus, including the supplemental funding to address rising needs caused by

Russia's war. We are already using those funds to provide relief to those both inside and outside of Ukraine impacted by the war.

And in response to the rising global food insecurity, exacerbated by the war on Ukraine, and its impact on global food supplies, USAID and USDA are in very active dialogue to determine the specifics that would go into drawing down funding from the Bill Emerson Humanitarian Trust. We are considering all factors, including commodities and countries that could benefit from these U.S. food commodities, with the intent to bolster existing emergency food operations in countries acutely impacted by this crisis.

I am also pleased to announce today that USAID is providing an additional \$114 million to the people of Ethiopia, Kenya, and Somalia, who are grappling with the worst drought the region has seen in 4 decades. The funding will be used to provide food and specialized nutrition assistance for malnourished children and mothers, medical supplies, and clean water to those in need.

Unfortunately, the reality is that while the number of people in need is growing, the number of people we can reach with the same amount of funding is decreasing. Rising transportation and food prices have cut USAID's purchasing power. Even prior to Russia's war on Ukraine, our purchasing power for food commodities had already dropped 11.4 percent in just 1 year. This equates to feeding ten million fewer people in the coming year with the same amount of funding. We must look for efficiencies to help save as many lives as possible.

Given the scale of global food insecurity and the dynamic nature of its causes, it is imperative that we are able to fully optimize our programs to be able to employ best approaches for each context in the future. The reauthorization of the farm bill at this time of global crisis provides a critical opportunity for Congress to ensure that the U.S. Government has the most effective tools at its disposal to meet the humanitarian challenges of the day. Technical fixes in the 2018 Farm Bill, like the elimination of monetization requirements, allowing community development funds to count towards the \$365 million annual non-emergency floor, and adjusting cost categories to provide more flexibility have had a positive impact on USAID's food assistance programs over the last 4 years. But more could be done to ensure that Title II assistance remains fit for purpose in the face of global food insecurity and increased costs.

To help keep this program viable in the years ahead, there are three technical fixes that could be pursued as part of the 2023 Farm Bill. First would be increasing the cap on section 202(e) resources to provide USAID with the flexibility to support both increasingly expensive emergency logistics, and quality non-emergency program design at the same time. Second, we could expand the Food for Peace Act to allow IDA in Title II funding and the same award to cut down on paperwork and improve efficiency of taxpayer dollars. And third, we could establish a single associated cost category to eliminate some of the barriers to entry for new small or local organizations.

U.S. leadership has never been more critical in the face of staggering levels of food insecurity. Optimizing our food assistance programs saves lives. We look forward to working with the Committee ahead of the upcoming farm bill reauthorization to assure we can

effectively respond to crises, built resilience among communities, and ensure that taxpayer dollars alleviate hunger and improve food security around the world.

I look forward to your questions.

[The prepared statement of Ms. Charles follows:]

PREPARED STATEMENT OF SARAH CHARLES, ASSISTANT TO THE ADMINISTRATOR,
BUREAU FOR HUMANITARIAN ASSISTANCE, U.S. AGENCY FOR INTERNATIONAL
DEVELOPMENT, WASHINGTON, D.C.

Introduction

Chairman Costa, Ranking Member Johnson, distinguished Members of the Subcommittee, thank you for the opportunity to discuss the U.S. Agency for International Development's (USAID) food assistance programming with you today. I also want to thank the Committee for its commitment to maintaining U.S. global leadership in international food assistance. Your support for establishing more flexibility within international food assistance programs has helped USAID to reach the most vulnerable in times of need and build resilience in communities around the world.

USAID's food assistance programs are more important now than ever, as global food insecurity continues to break record after record due to a confluence of conflict, climate change, the second order economic impacts of the ongoing COVID-19 pandemic, and now the war in Ukraine. Russia's invasion of Ukraine has not only elevated humanitarian needs and displacement in the region, but threatens to further jeopardize food security around the world due to its impact on global food supply chains. According to the International Monetary Fund, Ukraine and Russia account for nearly 30 percent of wheat exports and 18 percent of corn exports in the world, most of which are shipped through Black Sea ports that are now closed. USAID is particularly concerned about the impact on geographic areas characterized by already high levels of acute food insecurity, significant vulnerability to price increases, and/or reliance on food imports from Russia or Ukraine—and Afghanistan, the Horn of Africa, Lebanon, the Sahel, the Maghreb, South Sudan, Sudan, Syria, and Yemen are at the top of the list. The impacts of the current crisis on poverty, hunger, and malnutrition could be even more significant than those seen in the global food price crisis of 2007–2008 and the subsequent civil unrest, as the last crisis followed a period of strong global economic growth, whereas the years since the onset of the COVID-19 pandemic have been characterized by an increasingly worse global economic downturn. For example, in the Yemeni city of Aden, the price of a piece of bread increased by 62 percent between February 25 and March 3. In Lebanon, domestic food price inflation has reached 483 percent. In West Africa, wheat prices increased by 58 percent per ton in just 5 days.

As you know, USAID uses resources authorized under Title II of the Food for Peace Act and appropriated under the annual Agriculture appropriations for both emergency and non-emergency food assistance programs. In Fiscal Year 2021, USAID provided nearly \$2.3 billion in Title II Food for Peace Act assistance, funding the procurement of nearly 1.7 million metric tons of food from the United States to serve a total of almost 28 million beneficiaries in 35 countries. Nearly 86 percent of Title II assistance was for emergency responses and approximately 14 percent was for non-emergency programming.

USAID provides emergency food assistance to vulnerable populations affected by natural disasters, such as droughts and floods, and complex emergencies, such as conflict. U.S. in-kind food assistance is often used to respond to an emergency where local markets are not functioning; there is not enough food in local markets to meet needs; or beneficiaries do not have physical access to markets. The food baskets provided at food distributions can vary based on dietary preferences and nutritional needs of beneficiary populations. Because U.S. in-kind food assistance takes an average of 4 to 6 months to reach beneficiaries, USAID prepositions commodities in warehouses that are strategically located across the globe to reduce delivery times.

In addition to emergency programs, USAID works beyond the immediate response phase to improve and sustain the food and nutrition security of vulnerable populations through non-emergency assistance authorized in Section 202(b), what USAID now refers to as Resilience Food Security Activities (RFSAs). These unique programs build on USAID's humanitarian interventions to strengthen the ability of people, communities, countries, and systems to adapt to and recover from shocks and stresses, in a way that reduces chronic vulnerability and facilitates inclusive growth.

USAID merged the Office of Food for Peace (FFP) and the Office of U.S. Foreign Disaster Assistance (OFDA) to form the Bureau for Humanitarian Assistance (BHA) in 2020 to streamline the Agency's humanitarian programming and optimize the use of U.S. taxpayer resources. However, the efficiency envisioned by the creation of BHA could be further enhanced by legislative adjustments to truly maximize the impact of humanitarian programs. USAID welcomes the Committee's regard for this topic and interest in strengthening USAID's ability to more effectively respond to crises, build resilience within communities, and improve stewardship of taxpayer dollars.

Positive Impact of 2018 Farm Bill Reforms

Incremental technical fixes to authorizing language in the Agriculture Improvement Act of 2018 (the 2018 Farm Bill) have positively impacted USAID's food assistance programs over the past 4 years. For example, the 2018 Farm Bill eliminated the monetization requirement for food assistance, which has both ensured that taxpayer dollars do not go to waste and improved the impact of USAID programs by allowing increased investment in the resilience of vulnerable communities. Previously, USAID was required to monetize 15 percent of all U.S. in-kind commodities shipped overseas under RFSAs (based on tonnage) which, according to a Government Accountability Office report, resulted in a financial loss of approximately 24¢ on the dollar.¹

The 2018 Farm Bill also allowed Community Development Funds (CDF) from the Development Assistance account in the State, Foreign Operations, and Other Programs appropriation to count towards the \$365 million Title II floor for non-emergency programs included in the Food for Peace Act. This change allows USAID to increase its commitment to building resilience, provides additional flexibility in non-emergency programming, and frees up \$80 million in Title II funding each year for use in humanitarian emergencies. USAID's non-emergency food assistance programming under Title II primarily consists of RFSAs, which have proven instrumental to furthering the Agency's broader efforts to decrease global chronic food insecurity and contributed significantly to results under the Feed the Future initiative. RFSAs are intended to reduce humanitarian caseloads by strengthening resilience in populations that are vulnerable to acute or chronic hunger and recurrent shocks and stresses through multi-year, multi-sectoral interventions. The current RFSA portfolio includes programming in Bangladesh, Burkina Faso, Democratic Republic of the Congo, Ethiopia, Haiti, Kenya, Madagascar, Malawi, Mali, Niger, Uganda, and Zimbabwe.

The RFSA program in Kenya, for example, is a partnership with the local government and focuses on four counties in the Arid and Semi-Arid Lands that are impacted by recurrent drought cycles and persistent acute malnutrition at or above emergency levels. The program's goal is to break this cycle of acute malnutrition through localized interventions that are sustainable so that communities and county administrations can successfully implement them on their own. The program focuses on building resilience so that the impacts of the drought cycles are lessened through activities like teaching families how to identify malnutrition and prevent or treat it at home, and long-term asset creation such as water pans, shallow wells, and irrigation for people and their livestock. The RFSA program is also able to pivot to respond to shocks like the current drought, deploying rapid response activities already built into the program which help protect the families' and communities' assets during shocks.

The 2018 Farm Bill also clarified the use of associated cost categories, resulting in significant cost savings for Title II programs. USAID has four associated cost categories that support the transportation, programming, implementation, and distribution of Title II food assistance under the Food for Peace Act: Section 202(e), Internal Transportation Storage and Handling (ITSH), ocean freight, and inland freight. Section 202(e) funds support the administrative costs of programming U.S. food assistance and are limited to 20 percent of Title II funding. ITSH funding supports in-country costs directly associated with the movement, storage, distribution and implementation of U.S. food assistance. Ocean freight supports the cost of shipping the commodities on U.S.- or foreign-flag ships. Inland freight supports the cost of moving commodities from a port to land-locked countries. By adding "implementation costs" (such as milling) to the ITSH definition, the 2018 Farm Bill allowed USAID to more effectively use its limited 202(e) funding. For example, flour is a staple in Yemen, but shipping U.S. flour to Yemen is not appropriate due to its limited

¹*International Food Assistance: Funding Development Projects through the Purchase, Shipment, and Sale of U.S. Commodities Is Inefficient and Can Cause Adverse Market Impacts*; <https://www.gao.gov/assets/gao-11-636.pdf>.

shelf life. The ability to use the ITSH cost category for milling costs allows USAID to provide bulk wheat, sourced in the United States, for milling in Yemen. This change saves USAID approximately \$40–\$80 million in 202(e) costs each year that can be used to support and enhance other programs.

As humanitarian needs continue to outpace available resources, BHA's programming must be routinely evaluated so that programs can be adapted to changing contexts and successes can be replicated. Changes in the 2018 Farm Bill allowed USAID to expand its program design, learning, adaptive management, and evaluation activities by adjusting funding under Section 207(f) to be a percentage of annual appropriations, rather than a static dollar amount. These funds support critical oversight, monitoring and evaluation activities including the Famine Early Warning Systems Network (FEWS NET), the Food Aid Quality Review (FAQR), program impact evaluations, third party monitoring, and the maintenance of BHA's information technology systems. The expansion of these activities has been critical over the past 5 years to ensure the quality and effectiveness of Title II programs.

Again, USAID thanks the Committee for its support in addressing the challenges that the Agency faced ahead of the 2018 Farm Bill. Our collaboration on the technical fixes outlined above have led to more effective and efficient food assistance programs and improved use of taxpayer dollars.

Opportunities Presented by the Reauthorization of the Farm Bill

Given the scale of global food insecurity and the dynamic nature of its causes, it is imperative that BHA fully optimize its programs and be able to employ the best food assistance modalities for each context in the future. The reauthorization of the farm bill, at this time of global crisis, provides an unparalleled opportunity for Congress and USAID to work together to ensure the U.S. Government has the best tools at its disposal to meet the humanitarian challenges of the day, while upholding U.S. international commitments.

USAID's goal has always been to optimize humanitarian assistance programming and maximize taxpayer dollars within the confines of authorizing legislation in innovative ways. For example, in our non-emergency RFSAs programming, USAID piloted the "Refine and Implement" approach to co-creation which is based on adaptive management principles. The method allows partners to work closely with USAID and target communities to refine activity design in a way that is considerate of local context and community priorities while addressing the underlying causes of food insecurity. Our partners use evidence and pilot studies gathered during the first year of the award to refine the design of the program. Partners continue to review the assumptions and monitoring data annually to adjust the program as needed. Using this co-creation approach ensures that RFSAs are effective, efficient, and responsive to the needs of beneficiary communities over time. RFSAs are strategically designed to improve the sustainability of outcomes beyond the life of the programs. These programs also build the capacity of local actors to own the delivery of necessary inputs and services using a market-based approach, which is in line with USAID's localization agenda.

In fact, even more optimization and efficiencies could be gained by adjusting some of the approaches to implementing Title II resources. For example, USAID most commonly utilizes Title II and International Disaster Assistance (IDA) resources to fund humanitarian assistance programs. The number of countries where sustained, large volumes of U.S. in-kind food assistance are the most effective modality is limited, and it can be difficult to redirect commodities if the needs or the context change. Increasing flexibility between Title II and IDA accounts to allow USAID to quickly pivot programming in response to changing contexts would help ensure that the Agency utilizes the most appropriate funding tool in each response. Additionally, expanding the Food for Peace Act to allow IDA and Title II funding in the same award, would obviate the need for multiple awards to a single partner implementing both IDA and Title II resources in the same response. Humanitarian crises are rarely limited to one sector-robust wrap-around services (including health, nutrition, and water, sanitation, and hygiene) are often needed to support vulnerable people receiving food assistance. Expanding USAID's ability to co-program accounts would increase USAID's flexibility to respond to complex emergencies and its ability to implement multi-sectoral programs efficiently. Amending the Food for Peace Act to allow the co-programming of accounts could help BHA implement robust, multi-sectoral programs, as it was designed to do through the Bureau's creation.

USAID is also committed to improving localization in humanitarian responses. On November 4, 2021, USAID Administrator Samantha Power laid out her vision for the future of USAID in a speech at Georgetown University, which included an increased focus on localization, as local actors are best positioned to drive their country's development. Administrator Power set two ambitious goals for localization dur-

ing this speech: 25 percent of USAID assistance must go to local partners within the course of the next 4 years, and 50 percent of USAID programming must place local communities in the lead to either co-design a project, set priorities, drive implementation, or evaluate the impact of our programs by the end of the decade. USAID's localization agenda has strong bipartisan support; it was also a priority under former USAID Administrator Mark Green's New Partnerships Initiative and procurement reform efforts. In an effort to attract new, small, or local organizations to apply for these resources, establishing a single associated cost category would help streamline budgets and lessen the administrative burden of implementing Title II programs. This change would result in the elimination of barriers to entry for smaller organizations while retaining the necessary financial oversight to ensure compliance with the strict authorized uses of cost categories, such as Section 202(e) and ITSH.

The combination of CDF authorizations in the 2018 Farm Bill and the increased 20 percent 202(e) cap from the 2014 Farm Bill allowed USAID to eliminate the monetization requirement. Further increasing the cap on 202(e) resources would give BHA the flexibility to support emergency programming while also using the most appropriate modality for each non-emergency program based on local context and beneficiary needs. The 20 percent cap on 202(e) limits our ability to support both quality non-emergency program design and increasingly expensive emergency logistics needs at the same time. Because of this, USAID must still program commodities in RFSAs, where market-based modalities can be better suited to building long-term resilience. For example, the 2021 Haiti RFSA solicitation required a minimum of 50 percent of each annual budget be used to program U.S. in-kind commodities. During the question and answer period, many partners, including local Haitian non-governmental organizations, expressed logistical concerns about the need to program commodities due to inadequate warehouse and storage facilities, supply chain challenges, and security concerns. Some partners also did not believe that RFSAs with a commodity requirement could be sustainable after the end of the award or make lasting improvements to the resilience of vulnerable populations. As such, increasing the cap on 202(e) resources would give our partners increased flexibility to program RFSAs effectively.

Conclusion

Addressing the staggering level of food insecurity around the world will be one of the greatest challenges of our time. Optimizing USAID's food assistance programs will be critical to saving the most lives when confronted with growing humanitarian needs and limited resources. As demonstrated by 2018 Farm Bill changes I outlined above, incremental technical fixes to authorizing language in the farm bill have had significant positive impacts on USAID's food assistance programs over the past 4 years. Similar solutions exist for each of the current challenges USAID is experiencing as well. We look forward to working with the Committee ahead of the upcoming farm bill reauthorization to maximize the ability of the legislation to support USAID to more effectively respond to crises, build resilience among communities, and improve stewardship of taxpayer dollars. Thank you again for the opportunity to testify today; I look forward to your questions.

The CHAIRMAN. Thank you very much for your testimony, and I want to thank both witnesses this morning. We will now recognize Members of the Committee—excuse me—for 5 minutes each, alternating between the Majority and Minority Members of the Committee, and I shall begin by recognizing myself for 5 minutes.

Ms. Charles, in your testimony you noted that, as we all stated, Ukraine and Russia account for nearly 30 percent of wheat exports and 18 percent of corn exports in the world. Obviously, that is a staggering number. As I spoke with Secretary Vilsack last week, we don't know how much seed is going to get in the ground as a result of this war.

Have you begun to do an analysis on how we will work together in terms of the non-emergency food aid programs to build more resilience, but also the emergency aid food programs? I think we have to deal with both.

Ms. CHARLES. Maybe I can start specifically by talking about efforts inside of Ukraine to ensure that even under these incredibly

difficult conditions, they are able to export as much as possible. So, our development programming in Ukraine is working very closely with Ukrainian [Ministry of Agrarian Policy and Food]. Their estimates right now are that Ukraine may be able to plant for the spring season and yield something in the range of 50 percent of what a normal harvest might be from that spring crop. The challenge, of course, remains critical inputs to that, including diesel, as I think it was alluded to before. The Government of Poland has actually made the decision to draw down on their strategic reserve in order to supply the Ukrainians with diesel from Poland, and then the Ukrainians are working with Exxon-Mobile to backfill.

But like you said, this has ongoing impacts around the world, so we are working through the Feed the Future Program to look at ways to expand our efforts to increase yields worldwide, but also to look for greater efficiency in our emergency programs as well.

The CHAIRMAN. I had a meeting earlier this week with the French ambassador, and he indicates that his country, with his President and others, are leading a European effort to deal with this issue of hunger and humanitarian assistance. Are we working together with our friends with the European Union? Because it seems to me we are working together on a whole host of efforts as it relates to this crisis, and this seems to be one of those that I think we really need to be coordinating hand in glove.

Ms. CHARLES. We absolutely are. I actually just came back from Europe about 10 days ago where I was meeting with our European counterparts, both on the response in Ukraine, but more critically or as critically, the global response to the food security crisis. Administrator Powers actually chairs a weekly meeting with our European Union counterparts on the crisis in Ukraine, but the focus of these discussions in the last couple of weeks have been as much about response to the global impact of Ukraine's war on global food security as well. So, the French, the European Union, the Germans, the United Kingdom, these are critical partners in our response.

The CHAIRMAN. Well, they have to be, and obviously, working together we can consolidate resources and do a better job in addressing it and avoid duplication and be more cost effective. We might want to suggest Administrator Powers come here to brief us on this.

Mr. Whitley, I am very concerned about how climate change is impacting global food systems, and what role the farm bill programs have in improving uptake in sustainable practices with our partner countries. Would you care to comment?

Mr. WHITLEY. Yes, sir. Thank you, Mr. Chairman.

I think that one of our programs we can certainly prioritize and target countries that are interested and have shown a willingness to embrace climate-smart agriculture in the manner in which American agriculture views sustainability. Food for Progress is a program where we can highlight and emphasize and share our technology, our expertise, our innovation on global ag production in a sustainable manner. And this year's priority country lists three countries that we think we can partner with and educate them on, and they can be partners in the international conversation on what does—

The CHAIRMAN. Well, I think we would like to have more detail on that. I think many of us are watching what Europeans are doing with this Farm to Fork policy and wondering ultimately how that is going to work. But, there is more to be learned about that.

Let me close before my time runs out. I mentioned earlier in my statement about the supply chain issues, and I know the Europeans are having similar supply chain issues. What emergency procedures or efforts is the Administration contemplating? I mean, if we are having empty containers going back on the West Coast up to 80 percent, that is a problem and we are in a crisis, and even if we can consolidate our commodities that we can use to ship for support, if we don't have the capacity to move those products, then this is different than some of the other support we are providing into Poland or Romania. When we are talking about food grains and other such, you need ships.

Mr. WHITLEY. Absolutely, and the Administration does have a Supply Chain Task Force. Secretary Vilsack is a member of that task force, and—

The CHAIRMAN. With Porcari?

Mr. WHITLEY. Yes.

The CHAIRMAN. Yes, we have had conversations, but have you looked at how this pertains to this effort with this potential humanitarian food crisis?

Mr. WHITLEY. Yes, absolutely. It certainly is a problem in terms of trying to get product around the world, but we are providing assistance and information. We are hearing from our stakeholders every day about the challenges they face with getting products to market, and the two pop-up ports we announced in Seattle and Oakland hopefully will relieve some of the bottlenecks at the ports so we can get those cars loaded.

The CHAIRMAN. Well, let the Secretary know—my time has run out, but we are going to want more information on this container issue, because not only is it depressing current markets of American exports, California exports 44 percent of its agriculture.

Mr. WHITLEY. Correct.

The CHAIRMAN. It is a real challenge. But now you add to this crisis. We need to look at what emergency procedures could be implemented.

My time has really expired, and I will defer to my colleague and good friend, the gentleman from South Dakota, Mr. Johnson.

Mr. JOHNSON. It is good to be the king, right? You get that extra minute when you need it. It is great.

Administrator Whitley, I will start with you. Recently, in fact, yesterday, my colleagues and I sent a letter to Secretary Vilsack and Ambassador Tai about Canada's proposal for their tariff rate quotas on dairy products, and I will just be very up front. I thought Canada's proposal fell woefully short, and I wanted to give you an opportunity to share any of your thoughts on both their proposal and where do we go from here?

Mr. WHITLEY. Yes, sir, and I think USDA agrees that Canada's proposal has fallen woefully short. I think the ruling by the dispute settlement panel under the USMCA was clear that more needs to be done, and Canada has not met what we think the ruling has indicated. We are in talks and conversations with USTR on a regular

basis. This is a top priority for the Secretary and USDA, and we are working on both what we can do to continue our conversation with our Canadian counterparts, but also, what are the tools at our disposal, given the USMCA agreement.

Mr. JOHNSON. Well, thank you for that, and I want to reiterate both to the Administration and probably more importantly, to Canada, that I think a vast swath of bipartisan Members here in the United States House believe that Canada is not living up to its commitments under USMCA, as you alluded to, sir, and we certainly want to support bold efforts on behalf of the Administration to close that gap, because I do think American dairy producers deserve fair opportunity for market access. So, thank you very much for that.

Ms. Charles, you in your testimony noted the purchasing power of your budget has gone down. I think you said 11.4 percent, which is obviously substantial. The Chairman had noted that John Garamendi and I have a bill, the Ocean Shipping Reform Act (H.R. 4996), that would address some of the supply chain crunches. He noted that he and I have a bill that would address the anti-trust exemptions that the foreign-flag ocean carriers have. That would help a little bit.

But give us some sense to what extent have food aid recipients been impacted by the supply chain crunch, by shipping delays generally?

Ms. CHARLES. So, thank you for highlighting that. We certainly feel the impact of supply chain disruptions. That 11.4 percent was even before the war in Ukraine, so I think we can anticipate that our purchasing power unfortunately will go even lower. Just to give you some flavor, it now costs something in the range of \$164 per metric ton to ship food overseas, so where we are really feeling this is in the cost, the cost to move food around the world. And we already see ration cuts in places like Yemen. I think David Beasley was up on the Hill, the leader of the World Food Programme, sharing some of this a couple of weeks ago where we have seen a country where 13 million people are dependent on food aid, 50 percent ration cuts, again, even before the impact of those—

Mr. JOHNSON. So, Ms. Charles, I mean, clearly it is a budgetary problem. I mean, also is it a logistical problem? I mean, even if you have the budget, are you able to get the food where it needs to go when it needs to get there?

Ms. CHARLES. So, we have supply chain experts who work very hard with our partners to ensure that we can plan as far in advance as possible, but that planning does take 3, 6 months in advance to get food where it needs to go in the face of these kinds of supply chain disruptions. It makes it particularly difficult to use U.S.-sourced commodities for something like a sudden onset crisis. I mean, this really is most appropriate in context where we are facing more chronic hunger in part because of that lag time.

Mr. JOHNSON. And what about our international partners, other developed countries that have a tradition—I mean, almost nobody has a tradition like we do of international food aid, but is their ability to respond to these pop-up crises also reduced, I would think?

Ms. CHARLES. So, most of our peer donors provide cash as opposed to in-kind assistance, so our assistance really does complement those efforts in places where we have acute food insecurity and local markets can't support local procurements. That is one of the kind of niche roles that our assistance provides. But we certainly are seeing these supply chain disruptions everywhere that we work.

Mr. JOHNSON. Yes, and I would just close by putting an even finer point on what you note, and that is that the United States plays an almost unique role in international food security. While others are able to provide cash, and that is clearly needed and helpful, we are the bread basket of the world. We are growing and raising the kind of food and protein that people need during times of duress, and I just want to thank you for your efforts.

With that, Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman for his focus and his questions.

The chair will now recognize the gentleman from Georgia, our good friend Representative Sanford Bishop, who we are very fortunate not only does a terrific job on the policy committee, but also does a good job for us on Appropriations, representing the jurisdiction on the appropriate funding measures that will have to do a lot of what we are trying to do here, as we implement Title III and other related programs.

The gentleman from Georgia, Sanford Bishop.

Mr. BISHOP. Thank you, Mr. Chairman, and let me thank our witnesses, Administrator Whitley and Ms. Charles, for appearing this morning.

Let me ask you a couple of questions. The first has to do with the current situation in Ukraine. It has only compounded the global food crisis by intensifying the need for humanitarian assistance, and by reducing global supplies of wheat, cooking oil, and fertilizer. To bolster the American response to these crises, 36 bipartisan Members of the House Agriculture Committee, myself included, recently sent Administrator Power and Secretary Vilsack a letter encouraging them to tap the Bill Emerson Humanitarian Trust to make additional commodity donations available. Is this something that your agency is considering? If so, can you share your current plans to obligate available Food for Peace funds, and what steps need to be taken to access the trust?

Second, how are the Bill Emerson Humanitarian Trust funds replenished once they have gone down, and how long would it take to replenish those funds?

Ms. CHARLES. Thank you for that question, Congressman.

I can assure you that we are in very active conversations with the U.S. Department of Agriculture about determining the specifics about drawing down that Bill Emerson Humanitarian Trust, and we are in the process right now of looking at commodities in countries that could benefit from U.S.-sourced food commodities. And again, in terms of replenishment, I do think the statute has a specific cap on how much is replenished each year. I believe it is \$20 million each year, and we will be very eager to share with the Committee as soon as those specifics have been decided between

USDA and USAID about specific plans, including what that would mean in terms of replenishment.

Mr. BISHOP. Thank you.

Next question. In past farm bill debates, there have been efforts to reform the Food for Peace to shift more resources away from commodity food aid to cash assistance. What do you believe is the appropriate balance of commodities and cash assistance in Food for Peace, and what are the tradeoffs of proposals to shift more resources into cash or vouchers? And are there other ways that we should consider adding flexibility into the program implementation?

Ms. CHARLES. Thank you again for that question.

As I think Ranking Member Johnson mentioned, we do see a critical role for U.S.-sourced food commodities with our humanitarian assistance and our resilience-focused programs, particularly where local markets can't support the acute food needs of those that are most in need of assistance. We are seeking, in part because of what we talked about in terms of the reduced purchasing power of our Title II resources, greater flexibility in the 2023 Farm Bill, including, for example, when we look at some of our resilience programs, we may, in the first, second, third year of a program focused on increasing the resilience of local communities, want a bigger basket of U.S.-sourced food commodities, but over time as we invest in agricultural inputs, small-hold farmer yields, want to transition to more cash and voucher assistance to support local markets and hopefully markets that will become import markets as well for U.S. farmers.

Mr. BISHOP. Thank you very much. I will yield back the balance of my time. I thank you very much.

The CHAIRMAN. Will the gentleman yield?

Mr. BISHOP. Yes, I will.

The CHAIRMAN. Since you have a little more time.

It dawned on me as the gentleman from Georgia was asking you, it just seems to me that we have some commodities in this country in which we have surpluses, and some of those surpluses are, in part, caused by the supply chain issue with regards to empty containers. Have you looked at whether or not there is—as that is a source of protein that can be used in terms of your program, focusing on possibly purchasing some of those commodities in which there are surpluses and product just sitting, if not at ports, sitting in warehouses that could be shipped?

Ms. CHARLES. So, we start from the place of looking in the areas where we are seeing acute food insecurity, looking at the specific needs of those communities, what is appropriate for their local diet, what is familiar to those communities, and then we work very closely with colleagues at USDA to source the appropriate commodities in response to that. And often, that does include certain protein sources.

The CHAIRMAN. Well, let me give you an example and then get back to us on this. But wheat shortages, as we noted with Ukraine produces the flour to produce a lot of the bread products that certain diets in certain parts of the world—almonds, as you make almond flour, and that works as a good substitute, and—in terms of

a protein substitute. So, those are the kinds of things I think we need to be looking at in terms of thinking out of the box.

Our next Member is the Ranking Member, the gentleman from Pennsylvania, Congressman GT Thompson from the 15th Congressional District of Pennsylvania.

Mr. THOMPSON. Well, Mr. Chairman, thank you. Once again, thank you to the witnesses and your written testimony has been very helpful.

I wanted to follow up on some things. Ms. Charles, your testimony mentions the benefits of the flexibilities provided in the 2018 Farm Bill, and thank you for those kind comments, remarks. Yet, it seems USAID has continued to push to make Food for Peace Program a really important program, a cash giveaway program with virtually no requirements for the use of U.S.-grown food. Do you worry that a continued push in that direction will erode domestic support for this longstanding program, and quite frankly, I worry about the effectiveness of this pivot when the fact is, it is really about having enough food commodities with what we are experiencing—what we are seeing over the horizon come this fall. I don't—it seems to be the better push would be to, obviously, to help our farmers increase yield and production so that we actually have food. I am not sure where that money is going to be used to purchase commodities, given what is happening in Europe right now and will spread into the Middle East.

Ms. CHARLES. Thank you, Congressman Thompson.

I can assure you that the Food for Peace Program, both as authorized and as implemented, at its core is using U.S.-sourced food commodities. We do, at times, depending on the market conditions, the particular needs and environment, have wraparounds in terms of cash and voucher assistance. So, for example, in a place like Somalia or like Yemen, we may be pairing U.S.-sourced wheat, lentils, soy, or vegetable oil with that cash and vouchers that allow people to purchase things like vegetables to supplement those U.S.-sourced commodities or iodized salt, which is more appropriate to purchase on the local market.

Mr. THOMPSON. Okay, thank you.

Administrator Whitley, with the agriculture trade promotion programs winding down over the next year and a half, how do you foresee promotion of American agricultural products abroad being impacted?

Mr. WHITLEY. Thank you, Congressman, and we do have the MAP Program, which is the farm bill authorized program to promote U.S. agricultural products, and we have seen tremendous success. Obviously, we set a record amount of exports in 2021 at \$177½ billion, and many of our cooperators and companies tout the fact that they have been able to use MAP and FMD and some of these other programs to reach those successes.

So, as Congress authorizes these programs, we are certainly capable of implementing them and benefitting American agriculture to achieve exports, and as we get these authorizations and the requests from the farm bill, we will implement them to the best of our abilities.

Mr. THOMPSON. And thank you for that. Obviously, I am a big fan of both agencies, and the MAP Program and FMD, those two

tools that we provide through the farm bill are extremely important for our farmers, right, and our ranchers to be able to kind of navigate what can be pretty confusing and challenging in terms of trade. And so, I look forward to working with you to make sure that all the tools are there as we prepare for the next farm bill to continue to be effective.

One of the many lessons of this terrible genocide in the Ukraine is looking at how vulnerable food security can be, and so this is a win-win, because economically, this is a great market for our farmers and ranchers. I know the Great Recession of 2009 when many industries were just struggling desperately, agriculture actually held its own and we were resilient, but that was because of our trade that we have. So, we can never forget that it is important to serve the needs of people around the globe, but quite frankly, economically it helps those hardworking folks that work so hard every day.

And my time has just about expired, so I will yield back.

The CHAIRMAN. Well, we thank the gentleman from Pennsylvania always for your contributions, and we will continue to work together on all of the above.

Our next Member who is on queue is Representative Scott DesJarlais from the wonderful State of Tennessee, the 4th Congressional District. Mr. DesJarlais?

Mr. DESJARLAIS. Thank you, Chairman Costa, and thanks to our panelists today for being here.

Ms. Charles, I will start with you. USAID has historically pushed Members of this Committee to advocate for more flexibility to use cash to procure foreign commodities over in-kind donations of U.S. commodities. For example, instead of buying U.S. rice or U.S. wheat, USAID and its implementing partners could theoretically use U.S. taxpayer dollars to buy Russian wheat or Vietnamese rice to support feeding and development projects. Do you know, does USAID have controls in place to prevent U.S. dollars from supporting Russian businesses or others that directly compete with U.S. farmers?

Ms. CHARLES. So, all of our U.S. foreign assistance programs certainly have controls in place to make sure that our assistance is used consistent with the law and consistent with, certainly right now our partners are looking very closely at new sanctions that have been imposed. We do not restrict our partners, though, from procuring with our International Disaster Assistance, our IDA funding, from procuring what is on the local market.

Mr. DESJARLAIS. Okay. Administrator Whitley, Ranking Member Thompson touched a little bit on this, but when you talk about the MAP or FMD funds, how are they awarded to cooperator groups. Is there a formula, and is it based on the domestic production value of the commodity?

Mr. WHITLEY. No, the funds for MAP and FMD are awarded based off of export strategies called the Unified Export Strategy that they submit annually, and we have experts that assess these strategies for their capabilities to increase trade and increase exports. So, we work with the cooperators in the companies who submit these strategies. We add a little of our own analysis to those strategies and have a conversation with the companies, and deter-

mine the appropriate awards that we think those activities will lead to exports.

Mr. DESJARLAIS. Okay, and do you have concerns with how current transportation costs may limit the reach of the Food for Progress Program, and if so, has FAS been looking at creative ways to be more flexible with the \$40 million transportation cap?

Mr. WHITLEY. Yes, sir. We are limited by the cap, so we can only ship the amount of commodities that \$40 million will support in terms of transportation. So, we look forward to working with Congress and this Committee as we think about the next farm bill and what are some of the options and some ways that it can possibly be adjusted or more flexibility can be given so we can ship more commodities.

The CHAIRMAN. Would the gentleman yield?

Mr. DESJARLAIS. Yes, sir.

The CHAIRMAN. I am wondering either what could be done under emergency authority to lift the cap, and what we could do to help if this is anticipation of this year?

Mr. WHITLEY. We would welcome that conversation with Congress, Mr. Chairman, and certainly, this is a limitation of the program, the \$40 million cap.

The CHAIRMAN. We ought to look at that.

I defer back to my colleague, and I will give you the balance of the time that I used of yours.

Mr. DESJARLAIS. Okay. I guess we have time for one more question.

Administrator Whitley, Food for Progress is an excellent long-term industrial development market development program administered by USDA; however, I am hearing concerns with the narrow scope of Food for Progress's most recent key priority areas, and how they may preclude work on other worthwhile projects. Can you speak to how Food for Progress develops its priorities, and how these priorities can be expanded and improved upon in advance of the Fiscal Year 2024 funding opportunity to allow more U.S. co-operators to participate?

Mr. WHITLEY. Yes, sir. We work closely with USAID and other partners in carrying out a scoping mission on which countries and which parts of the world the program can be most effective. We evaluate those countries, those regions, those markets. We go through a process internally at USDA to determine where we think it is appropriate to go ahead and announce its priority countries, and once those countries are announced, we have a conversation with our implementing partners and we ask them to submit proposals and think about those options. And those proposals come in and again, we formulate an expert committee to evaluate those proposals and make those awards.

Mr. DESJARLAIS. Okay. That about uses all my time. Thanks again to both of you for appearing today, and Chairman Costa, I yield back.

The CHAIRMAN. Well, I want to thank the gentleman, and the chair was more than willing to provide additional time for allowing me to—your willingness to yield, because I think this cap issue may be something we are going to have to look at. Thank you for your good questions and your comments.

The next Member that I think is in queue at this point in time is Representative Jim Baird from the 4th District in Indiana. Mr. Baird, I believe you are on Zoom.

Mr. BAIRD. Thank you, Mr. Chairman, and I really appreciate this opportunity to discuss international trade and food assistance, and I really appreciate the witnesses being here.

My question goes to Administrator Whitley, and in your testimony, you stated that the Biden-Harris Administration is working to better position our agricultural and rural communities to compete in the global economy. Your testimony goes on to say USDA is working every day to meet this challenge by creating more and better export market opportunities for farmers, ranchers, and producers.

Some of my colleagues and I are concerned about the commitment this Administration is making to prioritize trade, to craft an ambitious agenda, as well as swiftly nominating individuals to fill the position of Chief Agriculture Negotiator and the Under Secretary for Trade and Foreign Agricultural Affairs. So, I really appreciate all the work that you do and the work that USDA FAS is doing, but I want to know what you are doing in this area of trying to fill these positions and enhance foreign trade?

Mr. WHITLEY. Thank you, Congressman Baird. I know the Administration is eager to complete the process to fill all of these positions that you mentioned. I will also add that we recently had our first in-person trade mission in the 2 years since the pandemic began. We took over 40 companies to Dubai on a trade mission and trade shows, and we received a very enthusiastic welcome from all of our trading partners and importers and distributors that we met in Dubai. Many of our companies walked away with enormous success moving forward. We had our first projections from that trade mission come out last year, and many of the companies in total reported that first year sales will exceed \$200 million. So, we are excited to take along American agribusinesses to new companies and new markets, introduce them to importers and buyers, and continue the process of creating these market access opportunities. We have four more trade missions on tap later this year, and we are looking forward to additional successes.

Mr. BAIRD. In that vein, the commodities that we are able to produce and incorporate into our trading programs, what are the comments for some of those on these trade missions, the recipients of our products, in your opinion?

Mr. WHITLEY. Well, the biggest comments I think we heard in Dubai is that American agriculture is the most reliable in the world. We received a lot of feedback that many countries and many buyers want to strengthen their ties with American agriculture because of our ability to provide safe, nutritious, timely commodities and be reliable year in and year out.

It is no accident that American agriculture set record exports in 2021 despite the supply chain logistics, despite the COVID pandemic. It is because of the resilience of American agriculture to perform in all times, and I think that is being shown, given the situations around the world, that we are a reliable supplier and many of our trading partners are looking forward to strengthening their relationship with us.

Mr. BAIRD. In that same vein, I am going to switch a little bit. Do you have concerns about our current transportation costs and how that may limit the reach of our Food for Progress Program? And if so, has FAS been looking to create ways to be more flexible with the \$40 million transportation cap?

Mr. WHITLEY. Yes, sir, we do have concerns about the \$40 million cap and we are certainly open to a conversation with Congress and the appropriate committees as they formulate the next farm bill to discuss what could be done or how it could be more helpful to have any flexibility with that cap to ship more products.

Mr. BAIRD. Thank you very much. I appreciate those remarks, and I yield back, Mr. Chairman.

Mr. WHITLEY. Thank you, sir.

The CHAIRMAN. Thank you. I thank the gentleman for his questions and his focus.

I now believe that Representative Hayes wishes to be recognized. I believe Mrs. Hayes is on Zoom. I don't see you.

Mrs. HAYES. I am here.

The CHAIRMAN. Oh, terrific.

Mrs. HAYES. Thank you, Mr. Chairman.

The CHAIRMAN. You are welcome. Glad to have you, and you are recognized for 5 minutes.

Mrs. HAYES. Thank you. Thank you, Mr. Chairman, and thank you for hosting this very important hearing.

During my time as the National Teacher of the Year, I traveled the world as an ambassador for education, and while I was abroad, I learned the degree to which many communities look to Americans to lead the way on food security. When I would visit towns, many students assumed I was there to bring food, as other Americans had done before me. Our international food programs are not just an exercise of goodwill; they are absolutely critical to communities that are impacted by the devastation of food insecurity.

I am thinking about now the crisis in Ukraine and what is happening as the world is watching many pregnant and nursing women flee their country, and I am particularly concerned about the health and well-being of these women.

Ms. Charles, how is USAID addressing the nutritional needs of pregnant and nursing mothers in Ukraine and their newborn babies?

Ms. CHARLES. Thank you. It is such a good question. This obviously has been a crisis that has even more so than normal disproportionately impacted women and children. We see this all over the world when war strikes. Women and children are most vulnerable, but we are seeing it in full force in Ukraine. I actually think it is a good example to come back to Mr. Thompson's question about how are U.S.-sourced commodities combined with greater flexibility around cash can be helpful in addressing the acute needs of lactating women and children. The flexibility we are pursuing in terms of wraparound services for the U.S. commodities allows, for example, for us to use U.S.-sourced specialized products to treat malnutrition, both in young children, but also pregnant and lactating women, but also have the cash to provide the kind of wraparound nutrition services, the training of community health workers, the assessment of nutrition, the follow up services that are pro-

vided to ensure that those programs can be most effective and use our U.S.-sourced food commodities most effectively.

Mrs. HAYES. Thank you. I appreciate that.

Additionally, the McGovern-Dole International Food for Education and Child Nutrition Program is a critical international program which is aimed to provide at least one nutritious meal per day to vulnerable children in schools across the world.

Mr. Whitley, how has the McGovern-Dole program been adapted to the COVID-19 pandemic, and do you have any recommendations for Congress to ensure the program can adequately respond to crises of this magnitude in the future?

I can't hear in the room. I am sorry.

The CHAIRMAN. You need to activate your microphone there.

Mr. WHITLEY. Okay, thank you. Thank you, Congresswoman.

Yes, the McGovern-Dole program has continued to operate during the COVID pandemic, and we have seen enormous success. Coincidentally, this is the 20 year anniversary of the program, and since the program's inception, we have fed over 31 million children around the world in 48 different countries, purchasing more than 1.3 million tons of American food. So, it has been a huge success, the overall program. So, every year we look forward to carrying out and implementing this program, identifying the places around the world where it can be most useful, and of course, as the farm bill authorizes this program, we are excited about the opportunities to continue.

Mrs. HAYES. Thank you. I appreciate your commitment to this work, and just the appreciation that we have to prioritize making sure that we get healthy meals to children, not just in our country, but all over the world.

Mr. Chairman, that is all I have. I yield back. Thank you.

The CHAIRMAN. We thank the gentlelady for her questioning, and the chair will now recognize the next Member of the Subcommittee, Representative Tracey Mann from Kansas's 1st District.

Mr. MANN. Thank you, Chairman Costa and Ranking Member Johnson.

The CHAIRMAN. You are welcome.

Mr. MANN. I appreciate it.

Today's hearing represents much of Kansas's legacy. I get to represent the big 1st District of Kansas, and former Senator Bob Dole used to be in this seat, and he paved the way, of course, for the McGovern-Dole International Food for Education and Child Nutrition Program, which as you all know, helps fight hunger by providing nutritious meals to children in schools and developing countries. The origins of Food for Peace Program actually came out of the district as well at a county farm bureau meeting in southwest Kansas years ago, and so, the list of reasons why international trade and food assistance programs like these are important to my district and important to Kansas, and that list goes on and on.

Ms. Charles, first off a question for you. Kansas is the Wheat State. Wheat is the number one commodity used in U.S. donations. If you add up all of the aid destinations, they would represent a top ten market for U.S. wheat. In that same vein, the last two farm bills have granted USAID flexibility in implementing aid programs; however, more than 1/2 of that funding is for market-based assist-

ance, meaning non-U.S. food. How can USAID prioritize in-kind donations of U.S. commodities like wheat?

Ms. CHARLES. Kansas certainly has a very proud legacy when it comes to food assistance overseas.

I will say, as you noted, wheat is the biggest commodity that we source here in the United States. When we look at assistance, we really are looking at how to deliver the most effective assistance, including how to make sure that that wheat is accompanied by the kind of wraparound services to ensure that it is actually addressing the most critical food security needs, that it is targeted at the most vulnerable, and that they are provided the kind of wraparound nutrition and health services that ensure that that can be effective.

Mr. MANN. Great, thank you.

My next question is for you, Administrator Whitley.

As you mentioned, the 2018 Farm Bill created International Agriculture Education Fellowship Program, or IAEFP. I applaud USDA's successful of IAEFP in Africa, but I am concerned with USDA's recent decision to relocate IAEFP after only 1 year in a country. While I recognize the need for this type of program in many geographic regions, such a move in the program's second year would undermine or could undermine the intent, sustainability, and overall success of the entire program.

What do you need from Congress to ensure multi-year sustainability in a particular country so that we don't risk exiting a country prematurely before progress is made and accounted for?

Mr. WHITLEY. Thank you, Congressman Mann.

The recent decision to offer ag program and under IAEFP to another country we do think is within the legislative authority of how the program was written. The funding is available on an annual basis, and we award on an annual basis; however, the programs do have a 3 year component to it. So, we will monitor and assess the program over a 3 year period for its overall effectiveness. But we can only allocate the money on that annual basis.

Mr. MANN. Great, thank you.

I believe that for IAEFP to be successful, the Department must find ways to extend its presence in awarded countries or regions. We can't expect to monitor any program with only a years' worth of results. I just think, once these programs are stood up, we have to do it for a few years to really know if we are having results, and there has to be a sense of longevity and sustainability to see effectiveness and really effective use of tax dollars.

So, thank you both for being here and what you do, and with that, I yield back.

The CHAIRMAN. The gentleman yields back and we thank him for his questions and comments.

The chair will now recognize the representative from Virginia's 7th District, my friend, the very able Representative Abigail Davis Spanberger.

Ms. SPANBERGER. Thank you so much, Mr. Chairman and Ranking Member Johnson, thank you for organizing this hearing, and thank you to the witnesses for being here today.

I also serve on the House Foreign Affairs Committee, so I am very excited to have the opportunity to discuss the role of American agriculture abroad in the ways that we can both support our farm-

ers and producers here domestically, and also affirm our global leadership in assisting in humanitarian crises and economic development priorities across the world.

So, Administrator Whitley and Ms. Charles, thank you for being here today and more importantly, thank you for the work that you do at USDA and USAID respectively. As my colleagues have mentioned, certainly there is significant concern about what the Russian invasion will have in terms of impact on the global food supply, the potential for an increase in food insecurity in lower- to middle-income countries, in particular, not to mention cost of food prices associated with rising costs of fertilizer, some of the secondary and significant impacts of this invasion.

We saw that just this week the reporting is that farmers in Ukraine are expected to plant 8.6 million fewer acres compared to 2021, and in addition to challenges with planting, of course, we see the Russian invasion destroying agricultural equipment and other essential elements of production, harvest, and ultimately storage.

So, looking into the future, I am curious kind of in a broader scale if you could speak to some of the role of USDA or USAID in helping Ukraine rebuild its agricultural capacity, and related to that, as we are looking at the 2023 Farm Bill, are there any additional flexibilities that we should be considering in this frame of how we assist countries that might need to not only feed their hungry citizens, but also rebuilt their agricultural capacity? And I will open that up to both of you.

Ms. CHARLES. Maybe I can take that question about Ukraine and their recovery.

I would just say we are not waiting for the end of the war to work with the Government of Ukraine on resilience in their agriculture industry. Already, there is very close collaboration between existing USAID agricultural programs to help farmers with access to credit to purchase seeds, fertilizer, and other core inputs. We really are working very closely with the [Ministry of Agrarian Policy and Food] in Ukraine to ensure that they are able to, even in the midst of the war, plant and hopefully export as much as possible, as well as supporting small-hold farmers on local production for the local market.

I would also say we do think there are a couple of flexibilities that could be pursued as part of the farm bill to give us greater flexibility to respond to what we know is going to be acute food insecurity throughout the world as a result of this crisis really for the next several years, we anticipate, including flexibility on the 202(e) cap to allow us to use a greater percentage of Title II funds to help build capacity of local partners and provide wraparound services to—along with U.S.-sourced commodities, as well as, again, greater flexibility to co-program IDA funds and Title II funds for similar types of reasons.

Ms. SPANBERGER. One really quick follow-up question. Are you also engaging directly with our European Union partners as well?

Ms. CHARLES. Yes. I am on the phone almost daily with my European Union partners. We are working very closely with them in the region. As well, Administrator Power does a weekly sync with our European partners, including on the responses out of Ukraine, but also how to support Ukraine in exporting as much as possible,

even under the circumstances, to address that global food security crisis, and coordinating on humanitarian efforts overseas. We are pressing on our European partners to not divert humanitarian resources from other parts of the world to Ukraine, but to seek new resources for that humanitarian response in Ukraine, and I think that will be critically important next year in particular as we see the impacts of this food price spike.

Ms. SPANBERGER. I know we are low on time. Hopefully the Chairman will be a little more generous.

Mr. WHITLEY. Thank you, Congresswoman.

Yes, so I think one of the things that USDA has provided early on to the crisis is an overall economic assessment and analysis of the situation. We have an economic reporting mandate from Congress and we report out monthly through our *World Agricultural Supply and Demand Estimates* the overall S&D situation, production/consumption, imports/exports, as well as stocks around the world. The next report comes out on April 8, so we have a lot more information in this month's report than we had in the previous month's report, and we work with our Office of the Chief Economist. The Chief Economist, Seth Meyer, briefed several of your staff a couple of weeks ago on this situation. So, that is the official USDA estimates and projections of the overall global supply and demand situation. So, we look forward to sharing that information publicly and with the world, because it certainly advises and gives insight as to how we see the overall situation and outlook of global commodities.

Ms. SPANBERGER. Fantastic. To both of our witnesses, thank you so much, and I really appreciate your time.

The CHAIRMAN. And we thank the gentlewoman from Virginia.

The chair will now recognize Representative Barry Moore from the wonderful State of Alabama, the 2nd Congressional District.

Mr. MOORE. Thank you, Chairman Costa, and I want to thank all the witnesses for being in attendance today.

Ms. CHARLES, this is a question I have. Can you explain why the International Disaster Assistance account which is being used for support does impact Ukraine, which we have been talking a good deal about today, but it generally precludes the use of U.S.-grown food. I am just curious what your thoughts are on that, and why?

I can't hear her.

Ms. CHARLES. Sorry. Our International Disaster Assistance account has maximum flexibility, including the ability to source food in-kind from the United States, if that is the most appropriate modality to respond in the context in which we are responding.

Mr. MOORE. Okay, and so, does that make sense to you? I know in situations where we try to support American agriculture, is it just a logistics issue most of the time with shipping costs, or could you maybe go in specifics on why you see that as—we don't use the U.S. food as often as we should maybe?

Ms. CHARLES. We tend to—we start from a place of analyzing both the local needs and the local markets, and from that, determine the most appropriate modality, which at times is U.S.-sourced in-kind commodities. Often, that comes from the Title II account that we are discussing here today, but that could come from IDA-based assistance as well.

Mr. MOORE. Okay. Well, thank you, and thank you for your time. With that, Mr. Chairman, I yield back.

The CHAIRMAN. All right, the gentleman yields back, and we thank him for his participation.

The chair will now recognize Representative Randy Feenstra from the good State of Iowa, the 4th Congressional District.

Mr. FEENSTRA. Thank you, Chairman Costa, and thank you, Ranking Member Johnson.

Administrator Whitley, in your testimony you speak of how the Biden-Harris Administration is working to position our agriculture and rural communities to compete in the global economy. This morning, I was with our pork producers. I have also been talking with our soybean association and corn growers, and there is this passion, probably their number one issue, is trade, and especially advancing trade in the Pacific Rim, the second phase of the Chinese trade deal, and then USMCA issues with the GMO corn in Mexico.

And I know you have talked about this already. I was listening earlier on, and you noted that the Administration has yet to fill the Under Secretary of Trade and Foreign Agriculture Affairs position, and the Chief Agriculture Negotiator has not been filled. I am really concerned about this. I want you to elaborate why. Why are we a year and 3 months down the path and these are critical, critical to our agriculture community, and yet, these things haven't been filled? I just see a tremendous void here.

Mr. WHITLEY. Thank you, Congressman Feenstra, for your question. So, at USDA, we do have a White House liaison office who manages the political appointments for the Department, so I would have to have the staff there get back to your staff on the particulars as to why the positions haven't been filled. But we do have an office that manages that.

Now, I know there is—they are working very hard in trying to get those positions filled, but that is outside the normal responsibilities of FAS.

Mr. FEENSTRA. Thank you, Administrator. Can you just bring back my comments to them, because these big organizations—I mean, for me, I am number one in hog production in the country in my district, and also close to the top in cattle, corn, soybeans, eggs, and they all need export markets. And so, this is so critical.

Another question. As you mentioned in your testimony, U.S. farmers export billions of dollars of corn products to Mexico each year. Unfortunately, Mexico is taking a non-science-based regulatory approach to agricultural products, including a December 2020 Presidential decree promising to phase out all genetically modified corn imports by 2024. Already, we have seen the Mexican Government take steps to begin enforcing this decree. What steps is USDA currently taking to ensure that Mexico upholds these commitments that they made under the USMCA, and ensure that U.S. farmers have access to the latest agricultural technology based on sound science?

I saw yesterday the USDA's press release that noted the Secretary's visit to Mexico, but unfortunately, did not mention at all any progress on the corn biotech approvals. Can you broach that subject at all, or tell us where we are at?

Mr. WHITLEY. Yes. I can assure you that the Secretary's visit to Mexico, which was yesterday, that he met with the [Secretariat of Agriculture and Rural Development], Mr. Villalobos, as well as the President of Mexico to make the case on the importance of following sound science and international standards for many of these inputs and products that we cultivate here in the United States of America. That is a high priority for Secretary Vilsack as well as the Department, and we have made the case at all levels with Mexico that the direction they are headed is quite troublesome. We have heard from many industries here at home and they, too, are extremely troubled by this, and this will continue to be a major focus and prioritization at USDA.

Mr. FEENSTRA. I am glad to hear that. I mean, it is so important that we keep Mexico as a trading partner. And frankly, I look at it and say the USMCA hasn't been agreed to, and there are parameters in there on how we move forward with this. So, that is great to hear.

One more thing, and I know you have talked about this again already; but, we have a lot of vulnerabilities in our country when it comes to drought, when it comes to flooding, obviously with the war going on now we have these issues with fertilizer and drought-resistant seeds. So, I am just wondering, is there anything that you can add to our farmers? I mean, we are ready to plant. My family, in-laws, are ready to plant. Is there anything that we can do in this upcoming season yet that is right around the corner to help out our farmers to get the seeds or to get fertilizer to where it needs to be and we can get it taken care of?

Mr. WHITLEY. Yes, Congressman. Recently USDA announced support for American farmers and offered up a program to encourage innovation, independent assessments, and to be resilient in terms of what we can do to produce fertilizer here at home. So, hopefully that program spurs and generates some creative thought on behalf of American agriculture, and we can bring down those costs with resources right here at home.

Mr. FEENSTRA. Thank you, and just one little note on that. Hog producers use natural fertilizer, so that is a way to do it.

I yield back. Thank you.

The CHAIRMAN. Well, the gentleman yields his time, although it has expired. But there is all sorts of good fertilizer out there that we can use.

I want to thank our two witnesses for your testimony here this morning. I think it really gave us an opportunity to focus on the challenges we are facing today, and as we all noted, the current crisis that we are dealing with, and really get in front of it. And so, we are going to continue to work with both of you and the Department of Agriculture and the Secretary, because it is so important for all the reasons we are aware of.

We are going to recess briefly for 5 minutes so that we can allow these two panel members to get back and do other important things, and we will have our second panel start shortly thereafter. So, we have a little break here that we are going to recess for, and then we will begin with our second panel just in a few minutes, okay?

So, if you want to take a little break, and the chair will recall the Committee shortly.

[Recess.]

The CHAIRMAN. All right. The Committee will now come back to order, and I want to recognize our second panel. We had a good first part of our hearing, and we want to thank our two witnesses for joining us. Our first witness is Ms. Krysta Harden, who is the President and Chief Executive Officer of the U.S. Dairy Export Council, and our next witness is Mr. Bill O'Keefe, and we are appreciative of his participation as well. I think both of you are old hands here, appearing before Congress, and you understand that you have 5 minutes appropriately, and we appreciate very much your being here.

As I said on the outset this morning, we have a crisis that we are dealing with as a result of world events, and the situation in Ukraine, the horrific invasion of Ukraine by Russia is having a ripple effect across the world. And the markets that are being impacted in terms of food availability is something that this Subcommittee is very concerned on, and we are very interested in how we anticipate this storm that is coming, and address it in every best way that we possibly can.

So, Mr. O'Keefe, your previous background is with mobilization of Catholic Relief Services and in your current role as Executive Vice President, we are looking forward to hearing your testimony as well. So, I want to thank you folks for both being here, and let us begin with Mr. O'Keefe, and we will go from there. Thank you very much. Please proceed.

**STATEMENT OF BILL O'KEEFE, EXECUTIVE VICE PRESIDENT
FOR MISSION AND MOBILIZATION, CATHOLIC RELIEF
SERVICES, BALTIMORE, MD**

Mr. O'KEEFE. Thank you so much, Chairman Costa, Ranking Member Johnson, and Members of the Subcommittee for the opportunity to testify today on the implementation of international food assistance programs authorized under Title III of the farm bill.

CRS was founded in 1943 due to an outpouring of concern from Catholics across the United States to help refugees from World War II. I have served CRS, starting in Africa, for over 40 percent of that time, implementing, supervising, visiting, and supporting USDA and USAID food assistance programs.

The arc of how Congress, USAID, and USDA have gradually shaped these programs bends towards sustainability, resilience, and flexibility. Marginal change, though, will no longer meet the challenges we as a country and the poor of the world face.

After decades of progress, global hunger has steadily risen for 7 consecutive years. The three C's, conflict, climate change, and COVID-19, are exacerbating chronic and severe food insecurity for people living in highly vulnerable and fragile contexts. This hearing has already brought out how Putin's war in Ukraine further threatens catastrophic global food insecurity. CRS Madagascar has already reported a 200 to 300 percent price hike in staple crops like wheat and vegetable oil, which dramatically cuts the number of vulnerable people our Title III supported program can reach.

As others have already mentioned, we are going to need significant supplemental food assistance and other international disaster assistance to prevent famine, death, and suffering in innumerable places. We at CRS are not the hyperbolic types, but we are extremely concerned.

This farm bill, though, provides an opportunity to get in front of the storm that is coming. The non-emergency international food assistance programs are critical mechanisms for helping communities prepare for, adapt to, and even thrive in the world of the three C's. We need to scale and maximize investments in multi-year development efforts aimed at sustainably reducing poverty and putting marginalized communities on a path towards resilience.

People are multi-sectoral beings, and their families and communities have varied and complex multi-sectoral needs. Food for Peace Title II programs uniquely respond to those needs according to local contexts. In Haiti, Ethiopia, Kenya, Madagascar, Uganda, the DRC, and Niger are Title III supported resilience food security activities, support families to recover from crises and transition from subsistence farming into greater market engagement. These critical activities depend on a locally determined and flexible mix of cash and in-kind agricultural commodities, and the ability to design programs based on present on the ground needs.

That is why CRS recommends that the next farm bill authorize full flexibility of funding for Title II non-emergency resources, and the removal of the cap in 202(e) funding that Assistant to the Administrator Charles mentioned earlier. Implementing partners must be able to mix cash and commodities and multi-sector activities in direct response to local context, experience of local partners, and changing realities on the ground. In-kind commodities are critical in food deficit context, such as Madagascar and Ethiopia right now. Market-based analyses frequently point, though, to a balance of food sourced from the United States, food sourced locally, mobile money, vouchers, cash, alongside a mix of supporting activities. Furthermore, COVID-19 disruptions in adaptations along with global food supply shortages and price inflation exacerbated again by the war on Ukraine are limiting the impact and sustainability of programs, given the inflexibility of current Title II resources. Without a legislative fix that makes the non-emergency resources fully flexible, program design may undermine some of the best practices to fight hunger.

Recently in designing RFSA in Haiti, these restrictions required too much commodity in the final year or 2 of the award, which limited our ability to transition to full self-reliance of the communities that we are serving.

I urge Congress to consider building this greater flexibility for non-emergency programs in the upcoming farm bill, and to adopt the other recommendations my written statement elucidates, including improving the Bill Emerson Humanitarian Trust and school feeding through the McGovern-Dole Food for Education Program, and reauthorizing the other notable trade title programs such as agricultural value chain support provided through Food for Progress. Emergency and long-term assistance, and eventually Feed the Future play dynamic roles as layered and sequenced re-

sponses that are a lifeline for hungry people, and build the foundation for more resilient and prosperous communities.

We look forward to continuing our partnership with Congress, this Committee, this Subcommittee, USDA, and USAID to strengthen farm bill Title III international food assistance, and we thank you for the opportunity to share our work, and I welcome any questions that you might have.

Thank you.

[The prepared statement of Mr. O’Keefe follows:]

PREPARED STATEMENT OF BILL O’KEEFE, EXECUTIVE VICE PRESIDENT FOR MISSION AND MOBILIZATION, CATHOLIC RELIEF SERVICES, BALTIMORE, MD

Thank you, Chairman Costa, Ranking Member Johnson, and Members of the Subcommittee, for the opportunity to provide testimony today on the implementation of international food aid programs authorized under Title III of the farm bill. My name is Bill O’Keefe, and I am the Executive Vice President of Mission and Mobilization for Catholic Relief Services (CRS), the humanitarian relief and development agency of the Catholic community and Church in the United States.

CRS was founded in 1943 due to an outpouring of concern from Catholics across the United States to help thousands of survivors and refugees of World War II with emergency food, water, and shelter assistance. It was from this initial response that CRS realized the overwhelming needs that existed not only in mid-war Europe, but across the globe for people impacted by poverty and facing crises, leading CRS to establish its mission of serving the world’s most vulnerable. Today, we partner with over 2,000 local, national, and international Catholic institutions and structures, faith-based and secular organizations, and the U.S. Government to assist people on the basis of need, not creed, race, or nationality. Motivated by the desire to preserve and uphold the sacredness and dignity of all human life, CRS serves more than 150 million people in over 100 countries globally. Through life-saving assistance for those impacted by unanticipated socioeconomic, political, and climate-related shocks and long-term, holistic development projects, CRS is working to sustainably reduce poverty, build resilience, and promote peace and prosperity for all God’s children.

After 2½ decades of historic and landmark progress that reduced the number of hungry and malnourished people in the world by half, global hunger is steadily on the rise for the seventh year in a row. The interconnected and compounding drivers of hunger that are a consequence of what we refer to as the “three Cs”—climate change, conflict, and now COVID–19—are exacerbating chronic and severe food insecurity for people living in highly vulnerable and fragile contexts. This has contributed to a significant backslide in once-achieved, record-breaking progress, pushing our world entirely off-track to achieving zero hunger and malnutrition by 2030.

As a leading U.S. Government implementing partner responding to emergencies around the globe, it is abundantly clear that U.S. international food aid programs have and continue to fulfill a dynamic role as mainstays of the American international response to the global hunger crisis and reflect the generosity of the American people. Through the combined work of farm bill-authorized international food aid programs like Title II Food for Peace, McGovern-Dole Food for Education, Food for Progress, the Farmer-to-Farmer program, the Bill Emerson Humanitarian Trust, and the International Agricultural Education Fellowship that effectively deliver a hand-up to people in need, the U.S. Government in partnership with organizations like CRS continue to inspire hope for those who are often left-behind.

As work begins to reauthorize the 2023 Farm Bill, CRS requests the following reforms to enhance international food aid programs:

- We request full flexibility for non-emergency Title II Food for Peace development programming, eliminating constraints around associated costs, such as 202(e) and the commodity requirement.
- We request that the Community Development Fund is reauthorized at an appropriated funding level to ensure continued and long-term flexible funding to support activities that holistically address hunger needs and build resilience.
- We request additional funding, at the discretion of the U.S. Department of Agriculture, for expanded local and regional procurement activities in the McGovern-Dole Food for Education program to enhance sustainability.
- We request that funding for commodities provided in the Bill Emerson Humanitarian Trust be made accessible to respond to unanticipated food crises; author-

ize a replenishment mechanism to respond to recurrent food security needs arising globally; allow for the prepositioning of emergency food aid so that food can arrive as quickly as possible in the face of an emergency; and permit the trust to cover associated costs, like ocean freight and warehousing, when Commodity Credit Corporation funding is not available.

The Food for Peace Program

For more than 65 years, the Food for Peace program has provided food assistance to over four billion people in need around the world. Today, the program provides funding for both emergency and development food security responses. In an emergency, Food for Peace delivers U.S.-sourced agricultural commodities to people facing crises. This emergency aid allows people to receive enough food to survive and prevents them from either having to migrate in search of better opportunities or sell off critical assets like seeds or livestock.

Food for Peace also authorizes a minimum of \$365 million a year—of which \$15 million supports the Farmer-to-Farmer program—for non-emergency, development programming that works with the most vulnerable communities in the late-recovery stage to build back better and create a pathway towards resiliency so that communities can once again provide for themselves and thrive. These multi-sectoral, multi-year programs address a number of sectors simultaneously—agriculture, nutrition, land regeneration, water management, infrastructure improvements, and market engagement—in order to holistically meet the needs of communities. The root causes of hunger, malnutrition and poverty are many and often interrelated; therefore, multi-sectoral programming effectively breaks down those silos that occur too often in foreign assistance, allowing implementers to tackle challenges from a systems-based approach.

CRS is currently utilizing Food for Peace Title II funding to respond to emergencies in Ethiopia, Sudan, South Sudan, and Madagascar, in addition to non-emergency funding for multi-year Resilience Food Security Activities (RFSA) in Kenya, Uganda, Ethiopia, the Democratic Republic of Congo, Haiti, Niger, and Madagascar.

Food for Peace in Southern Madagascar

The effects of an increasing global temperature, resulting in more frequent and extreme climate-related disasters, environmental degradation, increased resistance of agricultural pests and diseases, and decreased nutritional quality of staple crops, is posing a severe threat to the global food and agriculture system. Unfortunately, those who have contributed the least to the climate crisis will suffer the greatest consequences due to the impact on their livelihoods from lessening crop yields at best, or total crop failure at the very worst. CRS is already witnessing the devastating impacts of climate change on the lives of the communities we serve.

In Southern Madagascar, Catholic Relief Services, using emergency Title II Food for Peace resources, is responding to one of the worst multi-year droughts in the country's history. Poor rainfall, in addition to the economic impacts of the COVID-19 pandemic, sandstorms, and pest infestations, have driven nearly two million people into crisis-level hunger, with approximately 30,000 experiencing famine-like conditions. Through funding provided by the U.S. Agency for International Development (USAID) that totals \$40 million over 2 years, CRS is distributing emergency food aid to over 220,000 people and providing nutrition counseling and monitoring to over 25,000 children who are vulnerable to wasting, the most acute form of malnutrition. Additionally, CRS is repairing water points to provide much-needed water in this extremely arid environment, while simultaneously training program participants on how to maintain and manage their water supply. As a part of this emergency response, CRS is also building the foundation for resilience by integrating long-term solutions to drought and poverty. We are working with communities to strengthen local governance structures and are encouraging climate-smart agricultural practices. Additionally, the program supports youth and gender-sensitive approaches to agricultural development and community decision-making, while fostering financial literacy to help participants learn how to save and manage their money. For Madagascar's poorest people, Food for Peace is a lifeline that is staving off hunger and alleviating human suffering.

Nearby to this response, CRS is implementing a 5 year Resilience Food Security and Nutrition Program that works with the most vulnerable people, households, and communities to prevent and reduce acute food insecurity in Madagascar's Deep South. The project pursues a multi-sectoral approach to support families by improving their health; livelihoods through agriculture, fisheries, and livestock; and social services and safety nets. Through this response, CRS—with the support of the U.S. Government—is addressing the root causes of hunger and poverty by building the

foundations for sustainable agriculture-led growth that will prevent previously vulnerable populations from falling back into poverty.

Title II Food for Peace Recommendations

We thank Congress for continuing to support the Food for Peace Title II program and honor the good work it does in places like Madagascar. Additionally, CRS supports the reauthorization of Title II Food for Peace in the 2023 Farm Bill, acknowledging its role in providing both emergency food assistance and implementing risk-reducing and resilience-building activities that reduce poverty among the most vulnerable, thereby decreasing the need for future humanitarian assistance. However, as unprecedented crises continue to arise globally, and with funding and resources failing to keep up with the pace of the global need, we recommend improvements to the program to ensure that CRS and other implementers are utilizing the best and most appropriate tools in our toolbox, reaching as many families in need as possible.

A core focus of CRS' implementation of Food for Peace development programs is on improving the livelihoods of small-holder farm families as a means to achieving food security and optimal nutrition. This requires transitioning families from subsistence farming into greater engagement with markets with the goal of sustainability. We do this by: (1) building sustainable sources of income through savings groups, diversified livelihoods, new small-scale business opportunities, and links to sources of loans and other financial instruments; (2) improving capacity within local governments and civil society actors to carry forward new skills and practices introduced in programs, but also to continually learn and adapt practices to new challenges long after a program ends; and (3) by building lasting linkages between beneficiaries, service providers, and other market actors so that once the program is over, the network remains in place.

These activities require the use of cash-based resources, rather than in-kind commodities, and the ability to design programs based on present, on-the-ground needs, as opposed to legislative policy directives.

That is why CRS is requesting full flexibility of funding for Title II non-emergency resources, so that implementing partners have the agency to utilize the best and most appropriate modality choice to make responses and interventions context-specific and poverty-reducing. The statutory 20% cap on 202(e) funding, which provides fully flexible cash to support multi-sectoral development interventions (like the above) that are essential to graduating communities out of poverty, is not sufficient to meet the needs and objectives of Title II development programming. This is even more true today, as programming costs are increasing due to COVID-19 and global food supply shortages and price inflation as a result of the war in Ukraine. While we recognize the need for some in-kind aid in contexts like Madagascar or Ethiopia, we need the flexibility to pursue context-specific approaches using market-based analyses that address the needs of the people we are serving on the ground, which requires a more proportionate balance of food and cash.

CRS also supports the reauthorization of the Community Development Fund (CDF), Development Assistance funding provided through State, Foreign Operations appropriations, that is transferred to the Bureau for Humanitarian Assistance to directly fund or supplement Food for Peace development programming. The funding provided in CDF allows for fully flexible direct assistance, much like 202(e), to support sustainability activities that improve livelihoods, the nutritional status of communities, and enhance long-term economic productivity. **We request that Congress maintain the mechanism for CDF in the next farm bill, reauthorizing it at an appropriated funding level to ensure continued and long-term flexible funding to support activities that holistically address hunger needs and build resilience.**

Last, we emphasize the need for continued integration of climate adaptation interventions into Title II non-emergency, development responses to ensure that communities hardest hit by the impacts of a changing climate are not further pushed into poverty and food insecurity. Universally mainstreaming climate-smart and agroecological approaches into long-term food security activities enables rural farmers to strengthen their climate resilience, sustainably improve their incomes and livelihoods, incorporate locally led approaches for community capacity building, and strengthen the global food system. These activities include restoring degraded landscapes, developing better water management systems, planting drought-resistant crops, repairing soil health, and preserving biodiversity.

COVID-19's Impacts on Food Security

In the early days of the COVID-19 pandemic, when widespread movement restrictions were in place and schools across the world were closed, children who participate in the McGovern-Dole Food for Education program were impacted by unanticipated disruptions to their daily meals and education. For many of the children, who overwhelmingly come from chronically food-insecure households, a school meal is the only reliable source of food they are guaranteed to receive on a daily basis. Furthermore, the pandemic's stress on the global food and agriculture system resulted in inflated prices and widespread food shortages, making nutritious food less affordable and accessible to marginalized households and communities.

Thanks to the flexibility of USDA to help the McGovern-Dole program quickly pivot projects across the world—such as CRS's Learning for Life project in Guatemala—were able to adapt and pivot to the challenges posed by the pandemic by administering take-home rations at socially distanced food aid distribution sites. This allowed caregivers to collect food to feed themselves and their children, in addition to receiving learning materials so young children can continue their education at home.

McGovern-Dole Food for Education Recommendations

CRS recognizes the tremendous work of the McGovern-Dole program in serving millions of primary school children, infants, and new mothers across 40 countries in the 2 decades since its inception in 2002. Additionally, we express our utmost gratitude to Congress for continuing to fund and support the program's existence. Currently, CRS leads implementation in nine McGovern-Dole funded projects in: Guatemala, Honduras, Burkina Faso, Sierra Leone, Mali, Guinea-Bissau, Benin, Togo, and Laos. Each of these programs focus on improving childhood nutrition, promoting literacy, and supporting optimal maternal health outcomes for pregnant and lactating women. CRS also believes that continued support and robust investments in the McGovern-Dole Food for Education program aligns well with the U.S. Government's commitment to improving the nutrition, health, and education of vulnerable children worldwide as a member of Global School Meals Coalition. The coalition aims to make nutritious meals available for all children around the world by 2030. We stand with USDA in their commitment to graduation and a transition to public ownership, supporting efforts to build the capacity of host country governments to sustainably maintain their own independent school meal programs.

In the 2018 Farm Bill, a change to the McGovern-Dole program was incorporated that required USDA to allocate 10% of total McGovern-Dole funding to support local and regional procurement (LRP) activities. Previously, the agency had the discretion to choose which McGovern-Dole projects would receive funding for LRP. The United States Department of Agriculture (USDA) interpreted this change by universally applying LRP to all McGovern-Dole programs across the board. CRS welcomes the universal application of LRP activities into all active McGovern-Dole programs, enabling McGovern-Dole implementers the ability to supplement U.S. in-kind aid with culturally appropriate and locally sourced commodities, with the additional benefit of stimulating the local market by supporting livelihoods within the community.

In the upcoming farm bill, CRS requests that Congress allow for increased LRP activities to be determined on a yearly basis at the discretion of USDA, within a Congressionally directed authorizing window, to promote long-term sustainability and transition schools to a self-sustaining home-grown school feeding system. Furthermore, we request that the current *status quo* of 10% serves as a floor for McGovern-Dole LRP funding going forward, and that increases to LRP do not come at the expense of McGovern-Dole programs that improve food security; reduce the incidence of hunger; improve literacy and primary education—particularly with respect to girls; and maternal, infant, and child nutrition programs for pregnant women, nursing mothers, infants, and children who are 5 years of age and younger.

In places like Sierra Leone, where CRS is implementing McGovern-Dole projects in two districts, the host government has shown increasing interest in a home-grown school feeding model for schools across the country, acknowledging its role in serving as a vital safety net system for hungry children who rely on daily school meals. An increase in LRP commodities will allow McGovern-Dole programs the opportunity to work with local farmers to become a reliable market for schools in the community. Purchasing staple foods locally helps create a bridge that supports rural economies and livelihoods, diversifies school meals with locally appropriate foods to increase nutritional outcomes in young children, and strengthens local infrastructure and capacity.

Additionally, investments in LRP support USAID's Locally Led Development Initiative by engaging local actors in a holistic and meaningful way as co-equal partners working to strengthen local capacity, enable local actors to facilitate decision-making and develop their own solutions, and mobilize local resources to catalyze sustainable and transformative development outcomes.

CRS in South Sudan

Conflict is the primary driver of hunger globally with more than half of the world's hungry people living in areas of extreme violent conflict. Protracted crises, like conflict, combined with poor governance and corruption pose the most significant and grave threat to global food security, beyond—though exacerbated—by other drivers like climate change and COVID-19. South Sudan provides one of the clearest examples of the inexplicable linkage between hunger and conflict and the vicious cycle it creates. Since South Sudan's founding in 2011, the nation has been mired by extreme violent conflict, resulting in high levels of displacement, both internally and externally. Furthermore, the ongoing conflict has severely impacted food production in the country, with a record 5.8 million people currently facing a severe hunger crisis. Some areas are dealing with fighting. Others struggle with the influx of 1.6 million displaced people. This is in addition to a persistent El Niño-driven climate pattern which has caused the most severe drought in decades, with nearly half of the country's population unsure of where their next meal will come from.

Since January 2015, CRS continues to implement emergency relief and long-term development programs within South Sudan to provide agriculture, nutrition, and water and sanitation assistance, as well as promote peace-building and social cohesion to thousands of program participants. In 7 years, CRS has distributed food and nutritional supplements to over ½ million people; provided bags of grain and training on post-harvest storage to roughly 4,000 farmers; repaired 80 water sources; and trained communities on how to keep their water supply safe and flowing. We do this work in partnership with USAID through two programs: The Livelihoods Recovery and Resilience Program and the Resilience Food Security Program both funded by the USAID's Bureau for Humanitarian Assistance. Together, CRS is having an impact in over 1.3 million lives through integrated and multi-sectoral programming. A major component of the Livelihoods Recovery and Resilience Program is distributing in-kind food aid from the U.S. to families in need in exchange for work on community projects that rebuild roads and irrigation systems.

The Bill Emerson Humanitarian Trust

While Title II Food for Peace provides significant emergency resources to many countries around the world, hunger needs have ballooned significantly in recent years. The Bill Emerson Humanitarian Trust (BEHT) was created with the intent that U.S. Government emergency resources could be scarce in any given year, therefore resources provided in the trust can supplement emergency food needs when Food for Peace resources have been fully utilized.

The trust was originally established in 1980 to hold up to 4 million metric tons of wheat. It was later expanded to include a number of other commodities and was renamed the Bill Emerson Humanitarian Trust in 1988. Today, the BEHT has morphed into an all-cash reserve for the purchase of U.S. commodities for when unforeseen food needs arise. USDA and USAID jointly administer the BEHT, and the Commodity Credit Corporation (CCC) holds all BEHT funds. Equivalent to a rainy-day fund, the BEHT allows USDA and USAID the option to provide additional food assistance quickly, without having to rely on supplemental appropriations from Congress.

Unfortunately, despite increasing hunger needs and funding shortfalls, the resources in the trust have been mostly untapped, even though there is significant mobilization capacity and thousands, if not millions, of additional people who could benefit from this lifesaving assistance. Most recently, the trust was last accessed in 2014 to supplement a Food for Peace emergency response in South Sudan. The response required a \$50 million drawdown from the trust and \$130 million in associated costs from the CCC. At the time, very remote regions of South Sudan, where millions of people were on the brink of starvation, were impossible to reach by land and required more costly airdrops of food to urgently arrive to these areas. The funding in the BEHT made this effort possible; otherwise, hundreds of thousands of South Sudanese would have potentially faced death due to catastrophic levels of hunger as a result of ongoing war.

The Bill Emerson Humanitarian Trust Recommendations

Due to persistent global food insecurity, and looming famines around the world, **CRS requests that Congress make reforms to the BEHT that: (1) eliminate the barriers for accessing funding, (2) provide a replenishment mechanism**

to ensure long-term use of the trust in the face of growing global food insecurity, (3) allow for prepositioning of food in advance of anticipated crises, and (4) cover all associated costs, such as ocean freight and warehousing, when CCC funding is no longer available. According to the President’s Fiscal Year 2023 budget request, the trust currently holds approximately \$282 million in funding.

Additional Farm Bill Recommendations

CRS thanks Congress for continuing to support Farmer-to-Farmer (F2F), Food for Progress (FFPr), and the International Agricultural Education Fellowship. Each of these programs, in combination with Title II Food for Peace, McGovern-Dole Food for Education, and the Bill Emerson Humanitarian Trust, provide a holistic package of interventions that are layered and sequenced as communities transition from crises and recovery to long-term development interventions that connect small-holder farmers to markets, build connections with private-sector enterprises, and foster a legacy of food security in communities that were once dependent on U.S. Government assistance. In the upcoming farm bill, CRS supports:

- The reauthorization of the FFPr program, acknowledging its achievements in places like Uganda, where CRS has helped local vanilla farmers improve their livelihoods. Additionally, we support the reauthorization of pilot programs funded by FFPr for direct technical assistance of \$10 million annually to support agriculture extension projects, rather than through monetization, as authorized in the 2018 Farm Bill for Fiscal Years 2019–2023.
- The reauthorization of the International Agricultural Education Fellowship, established in the 2018 Farm Bill, to allow U.S. citizens—in partnership with implementing organizations like CRS—the opportunity to establish school-based agricultural education and youth extension programs in communities ripe for capacity building and scaling.
- The reauthorization of the F2F program, which partners American farmer volunteers with local small-holder farmers, producer groups, and rural businesses to develop their local capacity with the goal of increasing food production and rural incomes, expanding economic growth, and addressing environmental and natural resource management challenges. We hope F2F’s reauthorization will build off lessons learned from COVID–19 by continuing to pair U.S. volunteers with local experts to encourage sustainable knowledge and skills transfer.

The War in Ukraine’s Impacts on Food Security

The ongoing conflict in Ukraine is having an undeniable impact on the state of global food security within Ukraine and around the world. As a top exporter of wheat and sunflower oil, accounting for 40% and 60% of the global supply, respectively—many countries throughout North and East Africa and the Middle East are already feeling the effects of food price spikes and global supply shortages. Furthermore, agricultural inputs like fertilizer—which are vital for strong crop yields—have also taken a massive hit to its global supply due to sanctions imposed on Russia, who is the lead global supplier of potash, ammonia, and other soil nutrients. Countries on the brink of famine, like South Sudan, Yemen and in the Horn of Africa, are particularly vulnerable to the worsening impacts of the ongoing war in Ukraine, with an unfortunate likelihood of new hotspots arising in places like Lebanon, Egypt, and Jordan. In fact, global projections predict a food price crisis worse than 2008 and 2009, when widespread food scarcity led to civil unrest throughout the Middle East.

While there is great uncertainty as to how significantly food prices and availability will be impacted over the next 4 to 6 months, it is clear that the worst is yet to come. Staple crops like wheat, maize (predominantly for livestock), and sunflower oil, in addition to fertilizers and crude oil—a necessary input for food use, production, and distribution—have already seen price increases as high as 200–300% from pre-conflict levels. In anticipation of what is yet to come, the U.S., in partnership with implementing organizations like CRS, need to be prepared to mobilize rapidly in advance of a potentially deteriorating global food security situation. **As with any evolving humanitarian crisis, funding needs to be applied in a flexible and adaptive manner to avoid programming delays and ensure that the most appropriate modality is utilized to efficiently meet the needs of impacted populations and local market conditions. Additionally, interventions—even in a response setting—need to prioritize long-term resilience building, disaster preparedness, and strengthening of local structures to have the greatest possible impact.**

Conclusion

As Pope Francis urgently reminds us, “There needs to be a constant acknowledgement that the right of every person to be free of poverty and hunger depends on the duty of the entire human family to provide practical assistance to those in need.” This is why CRS thanks Congress for continuing its moral leadership in support of international food assistance programs like Food for Peace, McGovern-Dole Food for Education, Farmer-to-Farmer, the Bill Emerson Humanitarian Trust, the International Agriculture Education Fellowship, and Food for Progress.

In light of climate change, conflict, and COVID-19 aggravating severe hunger needs globally—and most recently, the conflict in Ukraine causing extreme price volatility and food supply shortages—we urge Congress to implement vital reforms to improve international food aid programs, such as:

- Allowing for full flexibility in non-emergency Title II Food for Peace development programming, eliminating constraints around associated costs, such as 202(e) and the commodity requirement.
- Authorizing the Community Development Fund at an appropriated funding level to ensure continued and long-term flexible funding to support activities that holistically address hunger needs and build resilience.
- Expanding local and regional procurement activities in the McGovern-Dole Food for Education program to enhance sustainability.
- Allowing resources in the Bill Emerson Humanitarian Trust to be made more accessible to respond to unanticipated food crises; authorizing a replenishment mechanism to respond to recurrent food security needs arising globally; allowing for the repositioning of emergency resources so that food can arrive as quickly as possible in the face of an emergency; and permitting the trust to cover associated costs, like ocean freight and warehousing, when Commodity Credit Corporation funding is not available.

These changes will allow us to nuance our responses to the numerous emergencies around the world, thus enhancing program impact and ensuring that CRS and our partners are reaching those in need with the most appropriate and context-specific responses to reduce vulnerability and address the root causes of hunger and malnutrition. Furthermore, CRS will supplement our farm bill outreach and requests by working with appropriators on the Agriculture Appropriations Subcommittee to increase U.S. investments to key accounts in the upcoming fiscal year and beyond. While policy-related improvements to Title III food aid programs through the farm bill reauthorization process are critical for catalytic community-level change, commensurate increases to baseline funding through Congressional appropriations is equally crucial for programs to keep up with rapidly increasing global needs.

As a leading implementer of U.S. international food aid programs, we can attest to the very real and lifesaving impact that these programs are having on countless lives around the world. Our proposed reforms reflect our experiences working with marginalized communities on the ground and a sincere understanding of how to make these great programs even better. We are grateful for your consideration of our recommendations and look forward to continuing our partnership with Congress, especially with Members of this Subcommittee, and the Administration to strengthen farm bill Title III international food aid programs, protecting their core focus of alleviating hunger and human suffering to save lives.

Thank you for this opportunity.

The CHAIRMAN. Well, thank you, Mr. O’Keefe, and your testimony is timely. Your suggestions on modifications with regards to Title III and implementation of various programs, given the current circumstances and the crisis that we are in, I fear only to grow worse, are very important and I am sure other Members will revisit this in the time of questioning.

In this time of—and you noted this pandemic, we have tried to learn to continue to work as efficiently as we can through Zoom and hybrid hearings, but we don’t always get it right. I certainly don’t always get it right, and I was focused on those that were physically here on the panel, but we have two other members that are on the panel that I failed to properly introduce, and I want to do that now.

Our next witness on this second panel today is Ms. Krysta Harden, who is the President and Chief Executive Officer of the U.S. Dairy Export Council, and then, of course, I noted earlier that we have Ms. Nicole Berg who will be testifying on behalf of the National Association of Wheat Growers, and then our fourth witness of this panel, Dr. Arif Husain, who is the Chief Economist of the World Food Programme. Dr. Husain is also joining us today from a long ways away. He is at the Democratic Republic of Congo, and we thank him for making the extraordinary effort to be testifying today before the second panel.

So, let us begin with Ms. Krysta Harden, who is the President and Chief Executive Officer of the U.S. Dairy Export Panel—Council, excuse me. Ms. Krysta Harden.

STATEMENT OF KRISTA HARDEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, U.S. DAIRY EXPORT COUNCIL, ARLINGTON, VA

Ms. HARDEN. Thank you, Mr. Chairman, Ranking Member Johnson, and other Members of the Committee for inviting me today.

I am not in the Congo, but I have to tell you on my family farm in southwest Georgia, Congressman Bishop's district, there are a lot of people in the world I would disappoint and leave early and come to be in person in this hearing, but my parents are just not one of them. So, I had to be with them this week and I really regret not being with all of you in person.

The CHAIRMAN. We will give you a raincheck.

Ms. HARDEN. My name is Krysta Harden. I am testifying on behalf of the U.S. Dairy Export Council. I serve as President and CEO.

USDEC represents the global trade interest of U.S. dairy farmers, processors, cooperatives, dairy ingredient suppliers, and export trading companies, and USDEC works closely with our partner, the National Milk Producers Federation, on trade-related issues.

Since USDEC was founded 27 years ago, dairy exports have grown ten-fold, reaching a record \$7.75 billion last year. All told, dairy exports accounted for about 17 percent of milk production. Our impressive export results, made possible in part by U.S. programs and policies that support exports, many overseen by this Committee. Today, I will discuss how existing farm bill programs, potential new farm bill provisions, and other trade policies can help drive the global demand and growth our dairy farmers and manufacturers need in order to create jobs in both rural and urban America.

The farm bill promotes American produced products through the Market Access Program and the Foreign Market Development Program, both of them instrumental to USDEC's efforts to support dairy exporters and build a market share against entrenched competitors. My written testimony includes a few specific examples and the many ways in which USDEC has used these programs in markets around the world.

An important part of MAP is its cross sector global-based initiative program—now, that is a mouthful, including one that USDEC leads that is noted to preserving export access for U.S. foods and beverages using common names. This GBI has been extremely im-

portant to American agriculture's work to combat EU's abuse of geographic indicators by imposing new trade barriers in various international markets. MAP and FMD offer excellent returns. For every dollar invested in the export market development programs, over \$20 is returned in export revenue. Yet, while our exports have expanded in whole, MAP and FMD resources have remained stagnant over the years. Given their critical missions and their impressive results, USDEC urges Congress to double MAP and FMD funding in the next farm bill.

Another major component of the farm bill are U.S. food aid programs—we have talked a lot about those today—which play an important role in helping support the world's nutrition needs. However, U.S. dairy products are not typically a sizable piece of our food aid purchasing. This is despite of the robust scientific evidence on dairy's unique nutritional benefits.

To make better use of these programs, Congress should seek opportunities in the farm bill to increase the use of U.S. dairy ingredients in food aid, including by scaling up purchases of ready-to-use therapeutic foods.

We also ask this Committee to consider a new provision. First, we recommend language to combat the EU's abuse of geographic indications. Legislation that can ensure USTR and USDA more proactively can defend common use names using a variety of tools. We also recommend establishing specific timeframes for the Administration to put forward critical nominees, specifically the USTR Agricultural Ambassador, and the USDA Under Secretary for Trade and Foreign Ag Affairs.

While the farm bill's related provisions are vital to American exports, Congress should also consider and work to promote additional policies that are key in advancing market access for farmers and food manufacturers. I just speak on two. I know I am running out of time, but our largest competitors have been exceptionally active in free trade agreements. The U.S. needs to get back in the game as well and craft an approach to pursuing comprehensive trade agreements that allow this country to advance its values and priorities on global trade. In the meantime, we need to fulfill the use of available tools, like the Indo-Pacific Economic Framework and the Trade Investment Framework Agreements. We also need to ensure our trading partners faithfully uphold current trade deals, and we talked about that today. We greatly appreciate the Administration securing a successful verdict in the USMCA's first ever dispute panel, yet more work remains and we discussed that today. We just need robust enforcement in this and in other markets, such as Mexico, as it has to be a key part of ensuring our exporters can meet the full rewards of U.S. trade agreements.

In closing, I would like to emphasize again how important Title III of the farm bill is to the American dairy industry and its workers. USDEC looks forward to working with our industry colleagues to provide further input on these programs, as work on the next farm bill advances.

Thank you for this opportunity. I look forward to questions.
[The prepared statement of Ms. Harden follows:]

PREPARED STATEMENT OF KRISTA HARDEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, U.S. DAIRY EXPORT COUNCIL, ARLINGTON, VA

Good morning, Chairman Costa, Ranking Member Johnson, and distinguished Members of the Subcommittee. Thank you for inviting me to testify as part of your 2022 Review of the Farm Bill's International Trade and Food Assistance Programs.

My name is Krysta Harden. I am testifying today on behalf of the U.S. Dairy Export Council (USDEC) where I serve as the President and Chief Executive Officer.

USDEC is a nonprofit, independent membership organization representing the global trade interests of U.S. dairy farmers, dairy processors and cooperatives, dairy ingredient suppliers and export trading companies. Our mission is to enhance U.S. global competitiveness and assist the U.S. industry to increase its global dairy ingredient sales and exports of U.S. dairy products. USDEC and its 100+ member companies are supported by staff in the United States and overseas in Mexico, South America, Asia, the Middle East and Europe. Dairy Management Inc. founded USDEC in 1995 and, through the dairy check-off program, is the organization's largest funder, however none of those funds are utilized in advocacy efforts. USDEC works with the National Milk Producers Federation to promote and advance the trade interests of the dairy community. USDEC's advocacy with Congress and the Administration related to trade policy issues is solely funded by membership dues.

USDEC is the dairy industry's cooperator, executing programs to increase U.S. dairy exports with the support of the MAP and FMD programs since its founding 27 years ago. As part of that work, USDEC has also been an active participant in multiple Global Based Initiatives. Over that time period, dairy exports have grown from \$764 million in 1995 to a record \$7.75 billion last year. Farm bill Title III programs' support has been instrumental to that growth and will continue to be critical in sustaining and growing U.S. dairy exports in the years to come.

The robust environmental stewardship of U.S. dairy farmers bolsters our capacity to meet global demand and provides an additional opportunity to be competitive. No other country is as greenhouse gas efficient in milk production as the United States, where producers reduced the greenhouse gas emissions of producing a gallon of milk by almost 20 percent from 2007 to 2017. We make highly sustainable products and continue to improve on that through our 2050 goals to become greenhouse gas-neutral or better, improve water quality, and optimize water usage.

Our history of stewardship and strong commitment to building upon our progress further in the coming years makes the U.S. dairy industry extremely well poised to responsibly meet the growing global demand for sustainably produced, high-quality dairy nutrition. We're eager to rise to that challenge and appreciate this opportunity to outline how Congress and the U.S. Government can best support dairy farmers and manufacturers in this critical endeavor.

Strong Title III funding of export promotion programs in the farm bill lays the bedrock necessary for our success; coupling that with additional trade policy measures enabling the U.S. to better compete against the world's largest global suppliers of dairy will help our dairy farmers and manufacturers thrive and support the millions of American jobs that are reliant on a healthy U.S. dairy industry.

Economics of Dairy Sector and Trade

U.S. dairy is an essential component of American communities across the country, employing more than one million workers and adding \$750 billion to the U.S. economy.¹ For the U.S. dairy industry to be successful and continue to support farmers, workers, and consumers, international trade and exports are of utmost importance. Exports underpin U.S. dairy's success in the present and will support the industry's growth in the future.

To best understand the impact of exports, it's important to understand how milk is produced and priced. Milk contains three essential components: milkfat, protein and lactose. The domestic *versus* international uses of these different components vary. In essence, U.S. cows naturally produce more of these essential dairy components than the United States consumes, making export markets critical to fully and efficiently using all the valuable components in the milk produced by dairy farmers.²

Over the past 20 years, satisfying international consumers' growing demand for dairy, particularly dairy protein, has allowed the industry to grow. Today, exports account for 17% of U.S. milk production. That figure is expected to continue to climb in the years ahead as global dairy demand continues to grow.

¹ <https://www.idfa.org/dairydelivers>.

² According to USDA, on average, out every 100 pounds of milk, 4 pounds were milkfat and 9 pounds were protein, lactose and other skim solids. The rest is water.

Percent of U.S. Milk Production Exported

(Rolling 12 Months)



Since 2001 U.S. milk production has increased by 37% while exports have more than quintupled. Impressive as that export growth has been, the *value* of exports has increased even faster than the *volume* of exports over that time, jumping by 537%. This highlights the fact that international markets can be a high value proposition for U.S. dairy. And those sales are critical to our customers abroad as well—the U.S. is the third largest exporter in the world. The well-being of the U.S. dairy industry is inextricably tied to international trade and the global dairy demand is strongly reliant on the U.S. remaining a consistent and reliable supplier.

Total Exports to World

(Rolling 12 Months, Value)

Million USD



As important as exports are today to America's dairy industry, they're essential to our future. International dairy trade is growing faster than the U.S. domestic market. As shown in the chart below, since 2010, the amount of dairy traded internationally has grown by more than twice the rate (+4% per year on average) of U.S. domestic dairy consumption (+1.5%).

Incremental Growth of Global Dairy Trade & Domestic Consumption since 2010

(Rolling 12 Months, Milk Solids Equivalent)

'000 MT MSE



The U.S. dairy industry's strongest future growth opportunities will come from international trade with 96% of the world's population living outside of the United States and rising populations and incomes in dairy importing markets. In some ways that future is already here. Perhaps the most telling statistic of all is that **U.S. dairy exports have grown by more than domestic sales in 4 out of the past 5 years**, including 2021, which set records for volume, value and percent of production exported. And this is despite what U.S. exporters face in key markets with recent export supply chain headwinds and competition disadvantages.

Ultimately, if the United States wants to continue to help fulfill the growing demand for high-quality nutrition around the world—and reap the benefits that those sales create for U.S. dairy farmers and workers through the production of Made-in-America products, we will need to continue to expand export sales. That takes broad-based support—including from the farm bill as well as the complementary matching funds the U.S. dairy industry provides—and additional policy tools to set our farmers and dairy manufacturers up for continued global success.

The growing global market is a highly competitive environment with experienced competitors entrenched in key markets. The European Union and New Zealand, the world's two largest dairy exporters, have been active in international markets far longer than the U.S., which has provided them with powerful historical advantages. They've built upon those advantages through a much more robust trade policy strategy—between the EU and New Zealand, one or both have free trade agreements (FTA) in 15 out of the 17 largest dairy markets by value.³ The U.S., by contrast, only has FTAs with five.⁴

With the combined investment of U.S. dairy farmers, processors, policymakers and associations, the U.S. is asserting itself as the primary dairy supplier to the growing global market. In 2021, the United States grew dairy exports by more than any other country in the world. However, sustaining that success is not guaranteed.

Maintaining trade relationships is vital to the strength of the domestic dairy industry and the economic health of rural America. Congress and the U.S. Government must work together to preserve equitable trade relationships with key dairy trading partners and prioritize creating greater market access for the high quality, sustainably produced milk and dairy ingredients manufactured by the U.S. dairy industry.

Expanding trade opportunities for dairy and reducing tariffs and non-tariff barriers to trade is crucial. The case for free trade agreements is more important than ever. With the international market growing at a faster rate than the domestic market, well negotiated FTAs support jobs in the United States. Over the past 10 years, global dairy trade grew on average by 3.8% per year on a milk solids equivalent basis. Customers around the world continue to demand more high-quality, nutri-

³ Excluding the U.S. and European Union, the seventeen largest dairy import markets by value are China, United Kingdom, Russia, Saudi Arabia, Mexico, Japan, Indonesia, South Korea, Malaysia, Philippines, Australia, Singapore, Canada, Thailand, Taiwan, Switzerland, and Egypt. Only Russia and Saudi Arabia don't have FTAs with either the EU or New Zealand.

⁴ The U.S. has FTAs with Australia, Canada, Mexico, Singapore, and South Korea. Although the U.S.-Japan Phase One Agreement expanded U.S. access to that market, work to complete it and create a permanent, comprehensive FTA has not been concluded.

tious, and sustainable dairy products every year, a need that U.S. dairy farmers and their cooperatives are well positioned to meet. Greater access to key dairy markets where the U.S. exports currently face competitive disadvantages will mean continued opportunity and growth for U.S. dairy farmers.

Title III and U.S. Dairy

MAP & FMD Funding

The Market Access Program (MAP) and the Foreign Market Development (FMD) program promote American-grown and produced food and ag products that are in competition with heavily subsidized foreign products. According to preliminary data from a forthcoming econometric study, the benefit-cost ratio of these programs is exceptional. For every \$1 invested in export market development programs, well over \$20 is returned in export revenue. Additionally, these programs increased net farm cash income by an average of nearly \$3 billion per year over the last 2 decades. These programs have significant direct impacts for farmers and ranchers, while also generating indirect effects in jobs and wages created at the state and local level.

Over the past 5 years, USDEC has received an average of \$5.3 million annually in MAP funding⁵ and an average of \$697,000 annually in FMD funding.⁶

- USDEC MAP funds are largely used for investments in our international office network of “boots on the ground” in key markets around the world; global cheese communication and education work conducted through USDEC’s USA Cheese Guild; retail cheese promotions; strategic market research, participation in the Middle East’s flagship trade show, Gulfood; and market servicing work on one of our largest export destinations: Southeast Asia.
- USDEC FMD funds are largely used for investments in strategic research; communications, seminars, shows and workshops focused on driving international use of U.S. dairy ingredients.

The following are just a few examples of the ways in which USDEC has used these programs:

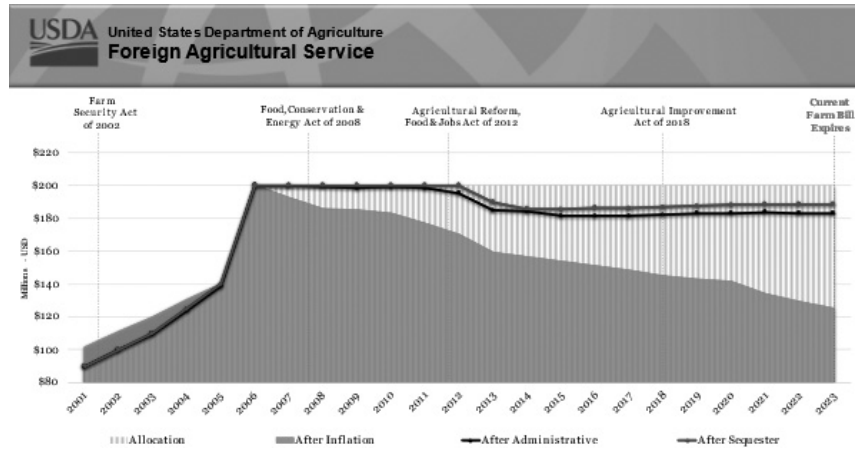
- USDEC trade servicing and promotions have effectively introduced new cheese varieties and supported new menu items containing U.S. cheese in Japan. As a result, Japan has been a consistently growing market for U.S. cheese, with U.S. exports more than doubling in the past 10 years, reaching nearly \$163,000,000 in value in CY 2020, compared to \$73,000,000 in CY 2010; Jan.–Jun. 2021 exports are at about \$97,000,000, 11 percent ahead of last year.
- Southeast Asia has become one of the most significant regions for U.S. milk powder exports as well as other dairy ingredients. A key impetus for our milk powder export gains was the USDA MAP-funded Milk Powder Summit held by USDEC in Singapore a few years ago. In addition, in 2021, USDEC launched the virtual Dairy Protein Snack Studio to give Southeast Asian food manufacturers ideas for incorporating U.S. dairy protein into new snack products targeted to regional tastes. This MAP-funded online tool has an interactive interface to spark R&D imaginations, with the ability to experiment virtually with different product shapes, U.S. dairy protein type, flavor, complimentary ingredients and coatings.

MAP is currently funded at \$200,000,000 annually, while FMD is at \$34,500,000. Based on various factors, including inflation, sequestration, and administrative expenses taken out of the program, the value of the MAP program has been reduced to approximately \$129,000,000 as illustrated in the chart below, decreasing the program by \$70,000,000. This trend will continue to decrease the program’s value every year. Similarly, over \$3,000,000 is stripped from FMD.

⁵ 2022—\$5.790M; 2021—\$5.318M; 2020—\$5.221M; 2019—\$5.292M; 2018—\$4.998M.

⁶ 2022—\$694K; 2021—\$789K; 2020—\$632K; 2019—\$712K; 2018—\$657K.

Impacts on MAP Funding 2001–2023



Recent reports from the U.S. Grains Council and the U.S. Agriculture Export Development Council show that doubling MAP and FMD would add \$44,100,000,000, or 3.6 percent, to agricultural export revenues. These programs undeniably add tremendous value to not only U.S. dairy exports, but the ability of all U.S. producers to market their goods internationally.

As Congress looks toward the next farm bill, USDEC urges doubling funding for MAP and FMD to better promote America's food and ag products across the globe. Based on our experience with the Agricultural Trade Promotion (ATP) Program, short term funding imposes significant constraints on the effectiveness of U.S. co-operators' ability to build sustainable market development activities. USDEC was awarded approximately \$7,800,000 in ATP funds in 2019—funds which must be spent by the end of 2023.⁷ The ATP program has been helpful, and we value these additional resources, yet their time-limited nature greatly limits our ability to develop the type of programs we would see as most effective long-term.

Common Food Names and the Farm Bill

In addition to our traditional promotion and research-oriented activities under the MAP program, USDEC has also been an active participant in various Global Based Initiatives (GBI), cross sector projects that benefit from a small portion of the total MAP funding. We are particularly active through the Consortium for Common Food Names in leading the charge to defend the use of common food and beverage names against aggressive global efforts by the EU to impose geographical indications (GIs) trade barriers in markets around the world. In principle, GI protections are used to describe specialized products made in a specific region of a country to protect the unique nature of that product. However, the EU has used GIs to restrict the use of generic terms by which millions of consumers recognize some of their favorite foods and beverages. The use of GIs to restrict consumer access to generic named foods must be firmly rejected as the protectionist and anti-trade policy that it is.

To complement the industry-led activities executed through the GBI program, we have urged the U.S. Government to secure firm and explicit trade commitments assuring the future use of specific generic food and beverage names targeted by EU monopolization efforts and rejecting the use of GIs as barriers to trade in products relying on common names. USMCA's common food name side letter provisions established a new precedent affirming market access rights for a non-exhaustive list of commonly used product terms. However, to effectively combat the EU's trade-distorting and WTO-illegal actions, the U.S. Government must proactively and consistently expand beyond this precedent to rectify these trade barriers with other trading partners. Accomplishing this will ensure that market access protections for American-made common food name products are strengthened and these cloaked barriers to trade are rejected.

⁷In 2021 ATP funds were primarily used for the following: market and consumer research; retail cheese promotions in Mexico and South America; dairy ingredient activities in Mexico; dairy ingredient promotions and communications in SE Asia; trademark registrations for USDEC promotion efforts.

This Committee also holds a responsibility to address non-tariff barriers like GIs. Language in the 2023 Farm Bill would help combat the challenge of GIs restricting trade of U.S. exports of common food names products. This would ensure that USTR and USDA negotiate proactively to defend the ability to use common names through bilateral agreements, MOUs and exchanges of letters. We look forward to working with our dairy industry partners to further elaborate on potential recommendations for this Committee as the writing of the next farm bill progresses.

Food Aid

Dairy provides high quality nutrition, which is particularly important for food-insecure populations.⁸ Milk and dairy products are nutrient-dense foods, supplying energy and high-quality protein with a range of essential micronutrients (especially calcium, magnesium, potassium, zinc, and phosphorus) in an easily absorbed form. Milk minerals are crucial for human health and development as well as in dairy processes as cheese-making and for all traits involving salt-protein interactions. Dairy products are rich in nutrients that are essential for good bone health, including calcium, protein, vitamin D, potassium, and phosphorus. Adequate calcium intake influences skeletal calcium retention during growth and thus affects peak bone mass achieved in early adulthood. The high levels of calcium play an important role in the development, strength, and density of bones for children and in the prevention of bone loss and osteoporotic fractures in elderly people.

With respect to protein quality, dairy outperforms alternatives and has important advantages for consumers over other (typically lower priced) protein sources. Despite the robust scientific evidence that demonstrates the nutritional benefits provided by dairy, dairy products are not widely used in U.S. food aid programs. *USDEC encourages Congress to examine opportunities to increase the use of U.S. dairy ingredients in a targeted manner in U.S. food programs in order to draw more heavily on the high-quality nutrition that dairy can offer, particularly for vulnerable groups such as children who are experiencing the devastating consequences of malnutrition.*

One area that is particularly ripe for greater near-term focus worldwide is the use of dairy ingredients in the treatment of malnutrition and wasting. For example, powdered milk is one of the primary ingredients used in ready-to-use therapeutic food (RUTF), an energy-dense, fortified medical food paste used to treat severe acute malnutrition the deadliest form of malnutrition, known as wasting. Just three RUTF packets every day can bring a child back from the brink of death in a matter of weeks. Despite being ranked as one of the most effective child survival interventions, RUTF is vastly under-funded. Less than one in four children suffering from wasting have access to this life-saving treatment.

American dairy farmers have the capacity to meet more of this emergency global need, but current investment in RUTF production is not enough. *USDEC encourages Congress to examine opportunities in the upcoming farm bill to scale up purchases of U.S. RUTF products that are compliant with World Health Organization (WHO) guidelines.*

Additional Trade Priorities

As vital as the farm bill's Trade Title is to supporting U.S. dairy exports, to maximize success America's dairy farmers and manufacturers need to see additional policy steps taken to advance U.S. agricultural export opportunities. A few top priority policies are outlined below:

Swift Appointment and Approval of Key U.S. Agricultural Export Nominees

To achieve full implementation of our existing trade agreements, and to broker new trade deals, it is imperative that we have the correct people at the helm of these negotiations. We are extremely worried that over a year into this Administration, we still do not have a confirmed USTR Agricultural Ambassador or a USDA Under Secretary for Trade and Foreign Agricultural Affairs. We believe the next farm bill trade title should provide specific timeframes for the Administration to put forward nominees for these two positions for Congress to consider. In the meantime, we urge Congress to push the Administration to fill these positions swiftly given how critical they are to defending the interests of U.S. farmers and food manufacturers working hard to sell their American-made products around the world.

Strong Support for Comprehensive Trade Agreements

As noted earlier, U.S. dairy exporters operate in a highly competitive global marketplace where our largest competitors—the EU and New Zealand—have been much

⁸Dairy facts in this paragraph sourced from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6723869/>.

more active than the U.S. over the past decade in negotiating and implementing trade agreements. This is already putting U.S. dairy exporters at a disadvantage in certain markets and the gaps will continue to grow the longer the U.S. delays reengaging in the global trade policy sphere in earnest. For this reason, USDEC strongly urges a resumption of the pursuit of comprehensive trade agreements with key dairy importing markets.

For example, we should restart U.S.-United Kingdom (UK) FTA negotiations. In 2021, the U.S. exported only \$30,000,000 in dairy products to the UK despite the fact that the UK is a major dairy importer. Our exports were significantly constrained due to existing tariff and non-tariff barriers. A resumption of FTA negotiations, and an eventual agreement, would substantially increase trading opportunities for this region.

Moreover, we urge the pursuit of comprehensive trade negotiations with key Asian markets such as Japan, Vietnam, Malaysia, Thailand, Indonesia and the Philippines. This is particularly important given that our major dairy competitors in many of these markets already have FTAs in place, putting U.S. dairy producers at a competitive disadvantage. USDEC does not consider FTAs to be an outdated 20th century tool; rather, FTAs remain the primary tool by which the U.S. can level the playing field for the sale of American-made goods around the world. The contents of FTAs can and should evolve over time to best advance U.S. priorities; yet abandoning this tool entirely due to concerns about some of our FTAs' past provisions risks losing market share to our competitors.

As FTAs are unfortunately not advancing, it's key that we maximize use of the tools USTR has announced to date. The Indo-Pacific Economic Framework provides an opportunity to address tariff and non-tariff trade barriers to U.S. dairy exports throughout the region. It is imperative that agriculture is a core component of these conversations given our industry's position as a reliable net-exporting producer of products supporting U.S. workers. The U.S. should maximize use of the Indo-Pacific Economic Framework to benefit U.S. agricultural exporters while continuing to work toward resumption of comprehensive trade agreement negotiations.

At the same time, USTR has also touted the value of Trade and Investment Framework Agreements (TIFAs) to advance U.S. export interests. We are hopeful that TIFAs can indeed be leveraged to make a degree of progress on expanding markets; doing so will require a greater prioritization of U.S. agricultural export interests than has traditionally been the case in TIFA discussions, however.

Implementation and Enforcement of Existing Trade Agreements

As important as it is to forge new agreements to continue to reduce barriers to U.S. dairy exports, it is critical that the U.S. ensure that our trading partners are held accountable of the provisions in our current deals.

In this respect, USDEC emphasizes the importance of fulsome implementation and robust enforcement of the U.S.-Mexico-Canada Agreement (USMCA) in order to preserve and fully deliver on the market access opportunities the U.S. procured for U.S. dairy exports.

We greatly appreciate the work of the Administration to initiate and secure a successful verdict in the first dispute settlement panel proceeding ever brought under USMCA, focusing on Canada's breach of its USMCA dairy tariff-rate quota (TRQ) commitments.

I would like to thank the numerous Members of this Subcommittee for their strong support on this issue.

Unfortunately, Canada's proposal to alter its USMCA dairy TRQ system falls far short of the genuine reforms needed to comply with all of its USMCA commitments. The U.S. must insist that Canada's proposal is unacceptable and that full compliance with the agreement is the only acceptable outcome in this case. The future of U.S. dairy exports to Canada depends on this, as does the outlook for the ability of USMCA's dispute settlement case to deliver real change when our trading partners shirk their obligations.

Other issues must be monitored and focused on by the Administration to ensure USMCA works for the dairy industry:

- Canadian exports of milk protein isolates (MPI) and certain skim milk blends manufactured under the new Class IVa have been increasing in a manner that appears designed to intentionally circumvent USMCA's dairy protein export disciplines. Curbing Canada's use of global markets to dispose of the excess dairy protein generated by its government-controlled supply management system was a core USMCA objective and must remain a focus area of the Administration.
- Vigilant monitoring and aggressive enforcement will also be necessary with our other USMCA partner, Mexico. Mexico is the largest export market for U.S.

dairy products, and the U.S. trade relationship with Mexico is of the utmost importance. Unfortunately, Mexico has seen a proliferation of poorly designed regulations that threaten to disrupt trade and erode the U.S. role as a reliable supplier. These overly burdensome regulatory proposals pose a particular threat to U.S. milk powder and cheese exports to Mexico. Close attention must also be paid to Mexico's implementation of USMCA side letter provisions on geographical indications (GIs) and common food names.

The U.S. should ensure discussions with Mexico treat its surge in regulatory and customs enforcement issues as a collective concern, and not simply as one-off issues. We need to restore smooth and predictable trading conditions with Mexico to ensure that the U.S. and Mexico remain an integrated market fulfilling the promise of USMCA.

Another area where implementation and enforcement are crucial is the China Phase One agreement. The Phase One trade agreement with China achieved important progress on several non-tariff-barrier (NTB) issues such as dairy facility registrations and access for high-value products such as extended shelf-life milk. However, retaliatory tariffs continue to impose a significant burden on U.S. dairy exports. The U.S. should secure long-term relief from these tariffs and work to ultimately achieve removal of them so that the U.S. dairy industry can reap the full benefit of the Phase One agreement and grow its market share and export volumes.

Over the past decade, China has become a critically important market for U.S. dairy exports. Sales last year alone totaled over \$700,000,000, ranking China the third largest export market for U.S. dairy products, despite the harmful impact of China's retaliatory tariffs in response to USTR Section 301 duties. While this progress is appreciated, it should also be noted that the Chinese have fallen short of their Phase One commitments to the tune of over \$17,000,000. The impact of this shortcoming did not escape the dairy industry—China continues to primarily source key dairy commodities such as milk powder and cheese from non-U.S. sources.

While there remains tremendous potential in this market as demand for dairy products continues to expand, China has not prioritized purchasing significantly larger shares of its dairy needs from the U.S. to date, despite its Phase One agricultural purchase commitments. We urge this Committee, and all of Congress, to work with the Administration to hold China accountable for their purchase commitments, press for removal of all retaliatory tariffs on dairy, and in the interim secure year-long retaliatory tariff exemptions for dairy products.

U.S. Leadership on Global Sustainability Efforts

We believe that the U.S. is uniquely positioned to promote sustainability on the global stage by leading a science-based, productivity-oriented approach that will be critical to supporting global competitiveness of U.S. agriculture exports, particularly dairy. We expect to see increasing pressure from our export competitors focused on advancing their agriculture, sustainability and trade objectives through ongoing work in the United Nations and international standard setting bodies. To balance the discussion and ensure global recommendations and standards are science-based, facilitate trade, and deliver more sustainable food systems, it is essential that the U.S. Government take a leadership role and work with like-minded countries around the world to deliver priority outcomes.

The U.S. dairy industry demonstrated that it is a strong partner in this charge at this past year's United Nations Food System Summit. As a proud member of the Coalition of Action for Sustainable Productivity Growth for Food Security and Resource Conservation, we stand ready to do the work needed to advance the pragmatic, forward looking approach that the U.S. Government has identified in their fight against climate change. This wide-ranging effort includes encouraging other countries and sectors to embrace the benefits of a sustainable productivity model and support innovation through initiatives such as our Net-Zero Initiative, which is a voluntary on-farm effort to advance our 2050 goals of achieving GHG neutrality and improving water and land use.

As dialogue around the world and within the UN itself often focuses on an anti-trade, anti-dairy, and anti-agriculture narrative, the U.S. dairy industry looks to U.S. leadership to inform the debate about the benefits of innovation and technology while advocating an approach that respects the legitimate role of all agricultural sectors in the future of the global food system. Given current and anticipated challenges combined with the solutions U.S. agriculture has to offer, the United States must remain uniquely focused on charting a more workable, trade-friendly and science driven pathway forward on sustainability and climate issues. Agricultural producers across the board are stewards of the land, and the U.S. dairy industry provides a prime example of that.

Closing

In closing, I would like to reiterate how important Title III of the farm bill is—the trade title supports U.S. dairy producers and processors in accessing profitable and successful global trading routes, while maintaining capacity at home. This importance cannot be understated, yet it is critical that we see more policies and actions by Congress and the Administration to best support American-made ag exports.

Again, Chairman Costa and Ranking Member Johnson, I truly appreciate the opportunity to testify before this Committee and serve as a voice for the U.S. dairy industry to highlight the importance of global trade to American dairy farmers across the nation.

The CHAIRMAN. Thank you very much, Ms. Harden, and with your previous experience both working with USDA in other past years. We look forward to your thoughts in terms of the question period.

Our next witness on today's panel is Ms. Nicole Berg, who is the President of the National Association of Wheat Growers, and in a conversation I had with her earlier, she has some familiarity with her family in the San Joaquin Valley where I grew up and was raised, and have the honor to represent. And we welcome you here, and your thoughts as it relates to the challenges we are facing, not only in Title III, but as we set the table for next year's farm bill reauthorization and the challenges we face, and what insight you might be able to provide us.

Ms. Berg?

**STATEMENT OF NICOLE BERG, PRESIDENT, NATIONAL
ASSOCIATION OF WHEAT GROWERS, PATTERSON, WA**

Ms. BERG. Chairman Costa, Ranking Member Johnson, and Members of Congress, thank you for the opportunity to testify before the Subcommittee on Livestock and Foreign Agriculture. My name is Nicole Berg. I am a fourth-generation farmer where I work alongside my dad and two brothers on our family farm in Patterson, Washington. We grow dryland and irrigated wheat on a diversified farm. Currently, I serve as President of the National Association of Wheat Growers.

NAWG is a federation of 20 state organizations and industry partners. We believe the farm bill Title III programs and how our Federal partners administer them can be improved going into the next farm bill. NAWG intends to outline our priorities in the coming months as Congress begins debating reauthorization.

Title III consists of two major elements that play a critical role in agricultural trade: international food aid and agricultural trade promotion. The international food aid programs have been successful in stabilizing economies and populations impacted by climate change, famine, and war. Trade promotion programs have helped U.S. agricultural products remain competitive on world markets and open access to new markets, which has boosted the agricultural economy and kept farmers in business.

Nationwide, there are six different classes of wheat grown in different climates for different uses. In my home State of Washington, there are roughly 2,500 wheat farmers, and eastern part of the state is known as the home of the soft white wheat. This variety is grown primarily for their use for cookies, crackers, cakes, as well as flatbreads. Washington farmers also raise superb hard red winter and spring wheats for bread. So far, marketing this year soft

wheat makes up 34 percent of the food aid donations and has several success stories resulting in the Title III trade promotion programs.

The programs in Title III play a significant role in the agricultural community. According to a study on MAP and FMD, these programs contribute an average of \$8.2 billion more in ag export revenue per year. However, MAP and FMD funding levels have remained stagnant for 15 years. During that time, cooperators like U.S. Wheat have reduced staff and offices while they work to prioritize and maintain programming. NAWG has historically sought to preserve and enhance funding levels for export promotion programs, given their significant return on investment and support for American agriculture and rural communities. The study also concluded that by doubling annual MAP and FMD funding, cooperators would increase their investment by 50 percent, creating yearly increases in agricultural exports by \$4.5 billion.

As an example, this return on investment can be seen in the Philippines where using Title III funds has increased our market share over 97 percent for U.S. wheat over the last 60 years. The Title III programs are essential to build trust with buyers and end-users who also look to U.S. Wheat for advice.

While there is still uncertainty about how Russia's invasion of Ukraine will impact world markets, we know that the invasion will exacerbate global food insecurity. Title III food aid programs are the best suited for the U.S. wheat to help support the humanitarian needs of those involved. Markets that typically purchase wheat from Russia and Ukraine, including bread heavy diets in the Middle East and Africa historically cannot afford high quality, high premium U.S. wheat. Using these programs will be the best way for the United States to help fill the unmet needs of a potential food crisis.

I was fortunate enough to witness the effects of these life-changing programs firsthand when I joined members of U.S. Wheat Associates and other ag groups on a 2 week journey to Kenya and Tanzania in 2019. The trip was funded by export market development programs, toured the Kakuma refugee camp in Kenya, where the World Food Programme is feeding more than 200,000 residents from nine countries, with over ½ of their food supply coming from the United States. A man I met there named Nelson expressed they are always happy to see the high quality of U.S. food they received. We also visited the World Food Programme's office in Mombasa, Kenya, where one of the largest ports in Africa is located. Through this port, the World Food Programme supports feeding programs in multiple African countries, all of which receive regular U.S. food shipments. This is just one example of life-changing impact these programs have made, and certainly changed my life.

As the Committee continues to have these hearings and reflects on programs authorized under the 2018 Farm Bill, I look forward to working with Members of the Committee, their staff, and other witnesses here today to help craft a farm bill that enhances trade and helps deliver American commodities to populations in need.

Thank you again for the opportunity to testify before the Committee today.

[The prepared statement of Ms. Berg follows:]

PREPARED STATEMENT OF NICOLE BERG, PRESIDENT, NATIONAL ASSOCIATION OF
WHEAT GROWERS, PATTERSON, WA

Chairman Costa, Ranking Member Johnson, and Members of the Subcommittee thank you for the opportunity to testify before the House Agriculture Subcommittee on Livestock and Foreign Agriculture (LFA). My name is Nicole Berg, and I am a fourth-generation farmer where I work alongside my dad and two brothers on our family farm in Paterson, Washington. We grow dryland and irrigated wheat on a diversified farm. I currently serve as the President of the National Association of Wheat Growers (NAWG). Thank you for holding this hearing today to discuss Title III—the trade title—of the 2018 Farm Bill. The Title III programs, originating in the farm programs following World War II, are vital programs that work to open new markets for agricultural production and help stabilize food-insecure countries and regions to preserve peace.

NAWG is a federation of 20 state wheat grower associations and other industry partners. We work collaboratively to represent the needs and interests of wheat producers before Congress and Federal agencies. Based in Washington, D.C., NAWG is grower-governed and works in areas as diverse as Federal farm policy, trade policy, environmental regulation, the future commercialization of emerging technologies in wheat, and uniting the wheat industry around common goals. Our members feel it is important to provide testimony before the LFA Subcommittee today as we reflect on the programs authorized under Title III of the farm bill. Today's hearing is particularly timely as NAWG is also evaluating the effectiveness of the farm safety net programs, how those programs can be improved going into the next farm bill, and how the U.S. Department of Agriculture (USDA) administers these programs. NAWG intends to outline our specific farm bill priorities for lawmakers in the coming months as Congress begins debating farm bill reauthorization. However, we are prepared to speak to how the programs have been functioning from the wheat perspective since enactment of the 2018 Farm Bill.

Title III of the farm bill consists of two major elements that play a crucial role in agricultural trade: international food aid and agricultural trade promotion. The international food aid programs have been successful in stabilizing economies and populations hurt by climate change, famine, and war and have helped promote peace by reducing terrorism and food emigration. Trade promotion programs have helped U.S. agricultural products remain competitive on world markets and opened access to new markets, which has boosted the agriculture economy and kept farmers in business. While making up less than one percent of total farm bill funding, Title III plays a crucial role in the farm safety net.

According to the United States Department of Agriculture's (USDA) World Agriculture Supply and Demand Estimates from March 9, the United States (U.S.) exported over an estimated 26 million metric tons (MMT) (990 million bushels) of wheat in 2020/21 and projects the U.S. to export 21.77 MMT (800 million bushels) in 2021/22, representing 54 percent and 49 percent of total U.S. wheat production respectively, with such a large percentage of our production exported, U.S. wheat growers' profitability is intricately connected to our export markets. The U.S. is the largest donor of food assistance worldwide, with over 1 MMT in food aid tenders in marketing year 2021/22 so far, making up around five percent of commercial sales, plus substantial additional cash and non-U.S. purchased food. Wheat is one of the principal food grains produced in the United States and consumed around the world, constituting roughly one in five calories consumed worldwide. Food aid donations have made significant impacts in markets like Ethiopia and Yemen that are facing food shortages.

Nationwide, there are six different classes of wheat grown in different climates and for different uses. In my home State of Washington, there are roughly 2,500 wheat farmers. The eastern part of the state is known as the home of soft white wheat. These varieties are grown primarily for their use in cookies, crackers, and cakes as well as flat breads. Washington farmers also raise superb hard red winter and spring wheats for bread. So far, this marketing year soft wheat (SW) has made up 34 percent of food aid donations and has seen several success stories resulting from Title III's trade promotion programs.

World Wheat Markets

With over 50 percent of U.S. wheat heading to overseas markets, trade is a major priority for wheat farmers. The United States is the world's fourth largest exporter of wheat, behind Russia, while being the largest contributor to food aid, providing around half of the world's food aid. On average, Mexico, the Philippines, Japan,

South Korea, and Nigeria make up the top five destinations for U.S. wheat. Following the United States's success at the World Trade Organization (WTO) and through efforts to negotiate the China Phase 1 deal, China went from being the world's 16th largest importer to the 4th largest in a single year. In addition, top recipients of food aid most recently include Yemen, Ethiopia, and Sudan.

The world wheat market is an ever-changing one that provides unique opportunities for U.S. wheat farmers. But wheat is also the world's most widely planted and traded commodity. That means global competition among exporters is fierce. It highlights the continuous need for new market access to keep U.S. growers on a level playing field with other countries—especially as our primary competitors in quality wheat markets—Canada and Australia continue to sign and pursue new free trade agreements around the world. Two free trade agreements that are currently being evaluated by the administrations are with the United Kingdom and Kenya. Both would be prime examples where U.S. wheat faces tariff and non-tariff barriers that we would hope to resolve through trade negotiations. In addition, the Asia Pacific is a region ripe for U.S. attention on trade, given several competitor agreements in place and the continuing growth in their wheat consumption. Whatever form those future discussions take, agricultural market access must be a priority.

Recently, the global wheat market has drawn a great deal of attention with Russia's invasion of Ukraine and the subsequent impacts on wheat trade and markets. Together the two countries represent around 30 percent of global wheat exports, and 14 percent of global wheat production. In the aftermath of the invasion wheat markets skyrocketed, and farmers witnessed unprecedented market volatility. Market prices have decreased since then but remain elevated and the volatility continues in the market.

While there is a great deal of unknown how the international sanctions will impact Russian exports of food grains and how the conflict will impact Ukrainian exports, we know that these increased prices are exacerbating global food insecurity. Russia and Ukraine are large wheat exporters, but even more so to some of the world's most price-sensitive markets. The White House has put together a conference on hunger and has stressed the dangers of world food shortages. Markets historically served by Black Sea wheat are scrambling to figure out how they are going to fill their demand and feed their people. As these events unfold, Title III will become more critical. The U.S. food aid programs will be needed to curb the effects of hunger in a humanitarian crisis that is unprecedented in recent history. The trade promotion programs will be vital diplomatic tools to build relationships with countries that have historically sourced wheat from Russia. Congress needs to take the opportunity to strengthen these programs in the new world.

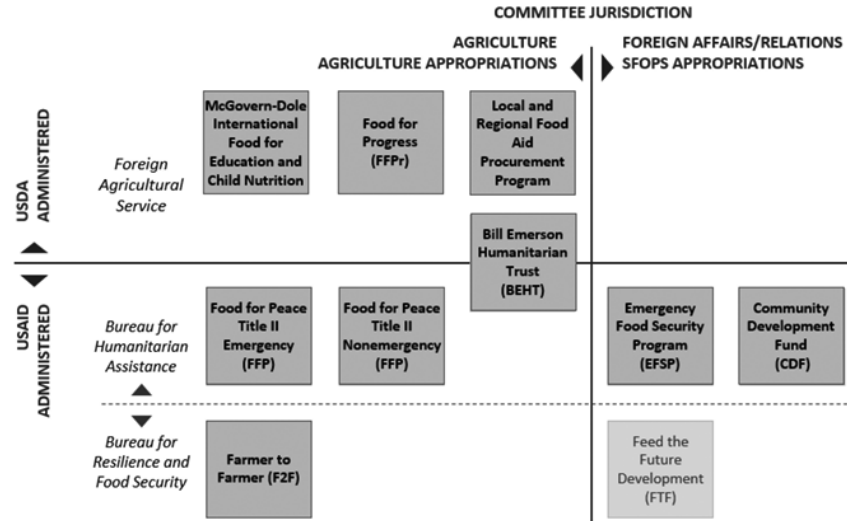
Food Aid Background and the 2018 Farm Bill

Title III international food aid and trade promotion programs have their roots in post-World War II European reconstruction efforts. President Dwight Eisenhower signed the Agricultural Trade Development and Assistance Act of 1954, Public Law 480, creating the program now known as Food for Peace which is Subtitle A of Title III of the farm bill. Food for Peace worked to decrease the surplus of domestic agricultural commodities, improve domestic markets, and stimulate new international markets. The 1985 Farm Bill saw the marriage of international food aid programs to the farm bill by authorizing the donation of USDA commodities by the Secretary of Agriculture to provide food aid to countries in need. Since 1985, farm bills have sought to allow the agencies that implement these programs, the United States Agency for International Development (USAID) and USDA's Foreign Agriculture Service (FAS), the flexibility to address humanitarian and food security crises adequately and efficiently.

Today, USDA and USAID partner with organizations to implement the food aid programs. Each program serves a separate purpose and provides assistance through either in-kind assistance or market-based assistance. In-kind assistance includes commodities produced in the U.S. and shipped to a target region and includes monetization where a partner organization sells commodities on local markets in developing countries and uses the proceeds to fund development projects. Market-based assistance provides direct cash transfers, food vouchers, or locally and regionally procured food to populations in need.

Jurisdiction of international food assistance programs, not all of which are in the farm bill, is demonstrated in the chart below from the Congressional Research Service.

Figure 1. U.S. International Food Assistance Jurisdiction



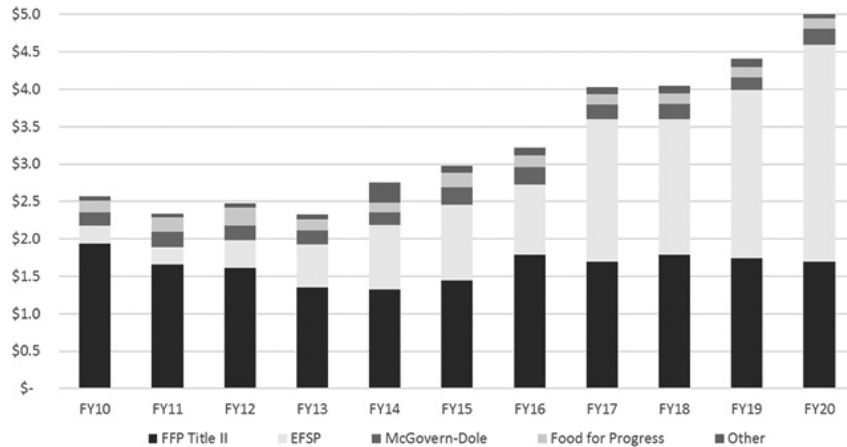
Source: CRS.

Notes: Feed the Future Development refers to agricultural development assistance provided under the Feed the Future initiative. The Feed the Future initiative is a government-wide initiative that includes all programs in this matrix, as well as other assistance provided outside USDA and USAID. Thus, this matrix does not include all programs that comprise the Feed the Future initiative. The programs highlighted in this graphic are the programs discussed in this report. SFOPS = Department of State, Foreign Operations, and Related Programs; USDA = U.S. Department of Agriculture; USAID = U.S. Agency for International Development.

International food aid programs are subject to annual appropriations and are included with funding originating outside of the farm bill. Food for Peace Title II programs are authorized at \$2.5 billion. The chart below shows total U.S. food assistance outlays for all food aid programs, not just ones inside the farm bill.

Figure 2. U.S. International Food Assistance Outlays, FY 2010–FY 2020

\$ in billions (current year)



Source: figure created by CRS using data from USAID, *U.S. International Food Assistance Report*, various years.

Notes: FFP = Food for Peace; EFSP = Emergency Food Security Program; The “Other” category includes the Farmer-to-Farmer Program Local and Regional Food Aid Procurement Program, Bill Emerson Humanitarian Trust, and Community Development Fund.

The 2018 Farm Bill continued prioritizing Title III and its role in international food aid while making key changes to provide maximum flexibility in how agencies and NGO’s implement these important programs. The new farm bill eliminated the 15 percent monetization requirement in Food for Peace, which allowed additional flexibility in program implementation. It also permitted ten percent of McGovern-Dole program funds to be used for local and regional procurement, established a pilot agreement allowing supplemental appropriated Food for Progress funds to be used for direct development activities, and made technical changes to several fellowship programs.

International Food Aid Programs

This section provides a brief overview of each of the international food aid programs.

- The *Food for Peace (FFP) Title II* is aid provided by the U.S. to recipients in foreign countries. All FFP assistance is required to be labeled as from the American people. Assistance must not interfere with the local agricultural economy, whether assistance be commodity, locally procured food, vouchers, or cash.
- The *Farmer-to-Farmer Program (FFP Title V)* coordinates short-term placements for U.S. volunteers to services to provide technical assistance to farmers in developing countries.
- The *McGovern-Dole International Food for Education and Child Nutrition Program* provides U.S. commodities to developing countries for school feeding programs and for pregnant and nursing mothers.
- The *Food for Progress Program (FPPr)* monetizes U.S. commodities in recipient countries to fund humanitarian or development projects.
- The *Bill Emerson Humanitarian Trust (BEHT)* is a mandatory reserve of funds held by the USDA that can supplement FFP assistance when FFP alone cannot meet emergency food needs. There have recently been a number of calls to release BEHT funds, which we fully support and believe is necessary.
- The *Local and Regional Food Aid Procurement Program (LRP)* finances the provision of local and regionally procured foods in non-emergency situations.

Agricultural Promotion Background and the 2018 Farm Bill

The agricultural promotion programs in the farm bill date back to 1978, when Congress passed the Agricultural Trade Act to increase the profitability of farming by increasing opportunities for U.S. commodities by expanding markets and improving their competitiveness in world markets. The 1981 Farm Bill was the first to include a trade promotion title.

Today, USDA FAS works with cooperator organizations to create, expand, and maintain foreign agricultural markets using the Market Access Program (MAP) and the Foreign Market Development (FMD) program. Title III also provides essential financing to encourage exports through the Export Credit Guarantee Program (GSM–102).

The 2018 Farm Bill continued promoting trade by consolidating several programs into the Agricultural Trade Promotion and Facilitation section, which maintains the unique functions of each program while establishing permanent, mandatory funding for export promotion activities. It also created a Priority Trade Fund that allows the Secretary of Agriculture to allocate additional funds to any export promotion program. MAP and FMD funding was also made available for activities in Cuba.

Agricultural Promotion Programs

The 2018 Farm Bill provides \$255 million in annual mandatory funding for export programs from the Commodity Credit Corporation, while GSM–102 was given over \$3.5 billion for allocation in the Fiscal Year 2022.

- The *Export Credit Guarantee Programs* provide credit guarantees to encourage the financing of commercial exports. This program helps lenders balance financial risk, especially in developing countries.
- The *Market Access Program* partners FAS with U.S. agricultural trade association and other groups to share the costs of overseas marketing and promotional

activities in order to build export markets for agricultural products. The farm bill provides \$200 million for MAP.

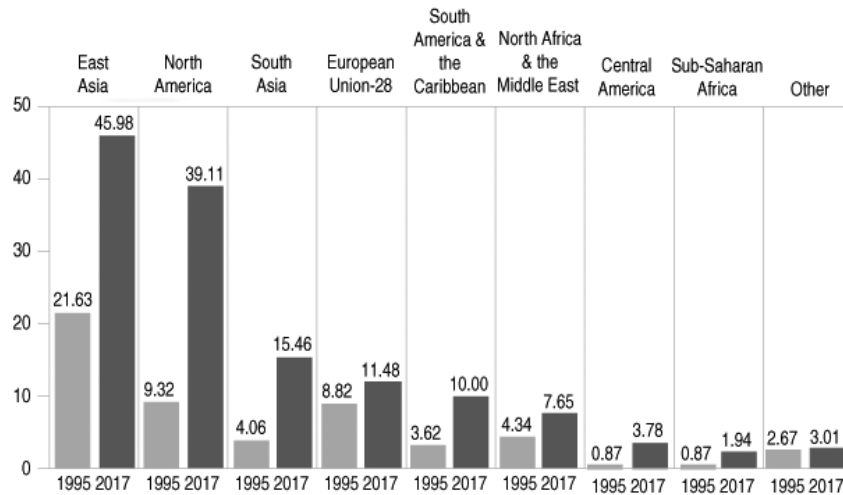
- The *Foreign Market Development Program* partners FAS with nonprofit agricultural trade associations to address long-term opportunities to reduce foreign import constraints or expand export growth opportunities. The farm bill provides \$34.5 million for FMD.
- The *Emerging Markets Program (EMP)* provides cost-share funding for technical assistance activities that support exports of U.S. commodities. The farm bill provides \$8 million for EMP.
- The *Technical Assistance for Specialty Crops (TASC)* program provides funding organizations to address non-tariff barriers of U.S. specialty crops. The farm bill provides \$9 million for TASC.

In the wheat industry, U.S. Wheat Associates is the USDA cooperator organization. They participate in MAP, FMD, and occasionally EMP in their efforts to expand markets for U.S. wheat producers. Those USDA grants are required to be matched, in the case of wheat, though farmer dollars are collected by individual state check-offs. Combined, those monies support a global network of 13 overseas offices and around 75 technical, marketing, and support staff, all working on behalf of U.S. wheat farmers.

Implementation of 2018 Programs

The programs in Title III play a significant role in the agricultural economy. According to an econometric study of MAP and FMD, conducted by Informa Economics IEG (now IHS Markit), these programs contributed an average of \$8.2 billion more farm export revenue per year between 1977 and 2014. These programs also boost export volume, and farm cash income. The study also concluded that doubling annual MAP and FMD funding would encourage cooperators to increase their investments by 50 percent, and the total investment would create yearly increases in agricultural exports by \$4.5 billion, increase the farm economy through cash receipts and income and farm assets by \$4.0 billion, increase domestic GDP by \$6.0 billion, while creating 84,600 new full and part time jobs. The graph below from USDA's Economic Research Service shows just how big an impact these programs have had over the past 3 decades.

Figure 2
Increases in U.S. agricultural export value by region, 1995 to 2017
 Value (\$ billion)



Source: USDA, Economic Research Service, U.S. Agricultural Trade topic page.

It can be an uphill battle to convince milling wheat buyers to opt for premium-priced, but better performing, U.S. wheat. However, there are many examples of

how MAP and FMD funding have had an impact. Within the class of wheat that I produce, soft white, The Philippines contains many such success stories, where through a combination of marketing and technical assistance over the last 60 years, the U.S. has built better than a 90 percent milling wheat market share and helped increase Filipino wheat consumption. U.S. wheat enjoys this level of market dominance because the program investments have helped U.S. Wheat Associates (USW), a MAP and FMD cooperator organization, stay “on the ground” in the Philippines and other Asian markets for decades, making trade and technical service calls and conducting wheat food production training. The Title III programs are essential to building trust with buyers and end-users who also look to USW for advice.

To increase wheat foods consumption in the Philippines, USW has helped flour millers, and commercial food companies build and maintain a multi-year campaign. As a result, over the past 5 years, the annual per capita consumption of wheat in the island nation has increased from 23 to 29 kilograms. That is an annual demand increase of 600,000 metric tons of wheat, with an estimated 97 percent of that wheat coming from the United States.

The funds also allow U.S. cooperators to work directly with companies to highlight the advantages of using U.S. commodities. Flour milling courses at international facilities highlighting the superior end-use attributes of U.S. grown wheat have led to Filipino millers adopting “Guaranteed 100% U.S. Wheat” labels on flour bags. This effectively locked mills into annual wheat purchases from U.S. origin supplies.

Providing technical services for emerging technologies is another area that can lead to increased loyalty to U.S. commodities. Through USW education and technical services, more than half of the Philippines’ mills have installed Solvent Retention Capacity (SRC) testing—a method for measuring protein functionality that most accurately conveys the end-use product attributes for soft white wheat. USW technical milling specialists have pioneered the use and adoption of the technology. As a result of these SRC-related efforts, millers and their customers can use objective, repeatable statistical data to communicate quality information while providing a clear advantage for U.S. wheat classes to the industry. That technology is especially critical for SW producers as each year’s crop’s functional attributes depend not only on genetics or management but also on the weather—which is clearly outside of our control. SRC has helped ensure millers and bakers receive the functional quality wheat they need regardless of what mother nature throws at us as farmers.

In another example of how cooperators use MAP programs to support customers’ purchase of U.S. grown wheat, USW has provided multiple layers of trade and technical support to a specific Philippine milling company, including custom training at the Wheat Marketing Center in Portland, Oregon, in 2020 to analyze the optimal blend of U.S. western white (WW) wheat flour in Philippine sponge and chiffon cakes as well as on layer cakes and Japanese sponge cakes. As a result, after follow-up technical servicing with USW technicians in 2021, the company launched their new unchlorinated cake flour utilizing 48,486 MT of WW valued at \$14 million, which was the first WW commercial shipment to the Philippines since MY2012/13.

The impacts of international food aid on the lives of millions of people are indescribable. I was fortunate enough to witness the effects of these life-changing programs firsthand when I joined members of U.S. Wheat Associates, U.S. Grains Council, and USA Rice for a 14 day journey to Kenya and Tanzania in 2019. The trip, funded by USDA FAS using export market development program funds, toured the Kakuma Refugee Camp in Kenya, where the World Food Programme (WFP) is feeding 98 percent of the more than 200,000 residents from nine countries, with over ½ of their food supplies coming from the United States. A man that I met there named Nelson emphasized that they were always so happy with the high quality of the U.S. food they received, especially because of the quality of wheat flour. We also visited the WFP office in Mombasa, Kenya, where one of the largest ports in Africa is located. Through this port, WFP supports feeding programs in Sudan, South Sudan, Mozambique, Rwanda, and Uganda, all of which receive regular U.S. food shipments. This is just one example of the life-changing impact that these programs have. It certainly changed my life, and this is just one example of the many stories that can be told that have originated out of Title III programs.

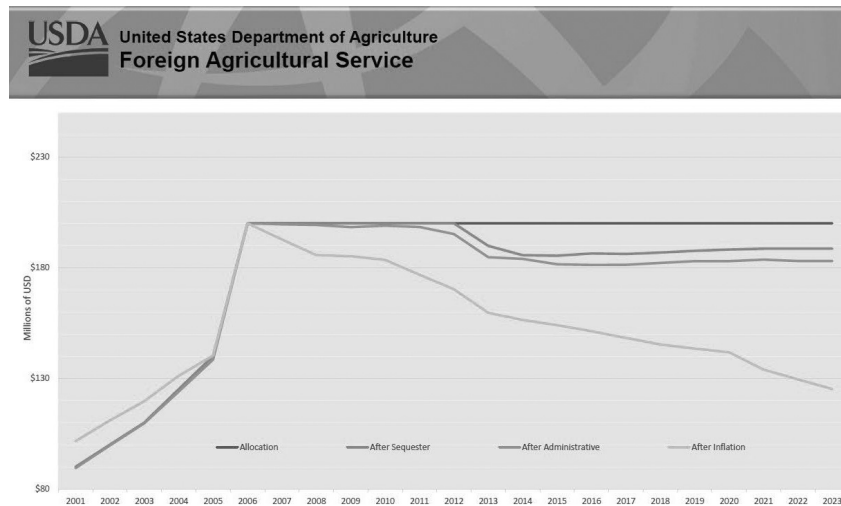
Critiques of Title III

Food aid and trade promotion programs remain a critical part of the overall export economy of U.S. wheat. The 2018 Farm Bill provided mandatory funding of \$255 million annually for trade promotion activities. Unfortunately, these funding levels become less effective as costs and the numbers of grant applicants increase, as indicated in the graph from USDA below. It has been more than 15 years since Congress increased funding for MAP and 20 years for FMD. During that time, cooperators like U.S. Wheat Associates have reduced staff and offices while they work

to prioritize and maintain programming. The non-farm bill authorized Agricultural Trade Promotion Program (ATP) has temporarily staved off further reductions and allowed a much-needed increase in programming, but those funds run out in 2024. Significant increases to the MAP and FMD baseline funding levels will be critical as ATP funding is exhausted. Throughout the appropriations process and in past farm bill reauthorizations, NAWG has sought to preserve and enhance funding levels for export promotion programs given their significant return on investment and support for American agriculture and rural communities. Currently, NAWG is formalizing our farm bill priorities, however, important groundwork has been laid through the MAP/FMD Coalition seeking to double the funding level for these critical programs, given the decade and a half of level funding. It is important the Subcommittee consider these requests going into the 2023 Farm Bill debate.

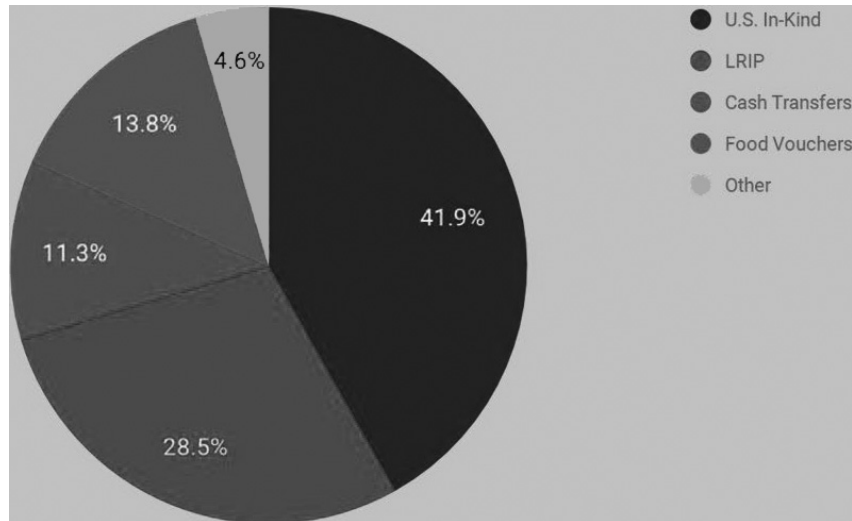
Available MAP Funding

2001-2023



Similarly, as the price of shipping and fuel increases, the amount of commodities donated through food aid, given the authorized funding levels, continually decreases. Therefore, it is important that this Subcommittee give serious consideration to addressing the increased costs of providing food aid and expanding markets while looking at the funding levels of each of the programs contained in Title III. One such area the Subcommittee should examine is the cost it takes to ship commodities. According to a Congressional Research Service Report, procurement of commodities for in-kind food aid made up approximately 40 percent of funding in FY 2020. These commodities are subject to U.S.-flag shipping requirements in the Cargo Preference Act of 1954, which requires at least 50 percent of the gross tonnage of U.S. Government-financed cargoes must ship on U.S.-flag vessels. Shipping on U.S.-flag vessels typically costs more than foreign-flag vessels, which raises the cost of providing in-kind food aid. This reduces the volume of food aid that can be provided. Congress should evaluate the required threshold for food aid programs, consider an increase to the Food for Progress Transportation Cap, and work with the maritime industry to find a creative solution that maximizes food aid while keeping the maritime industry strong.

The last two farm bills have granted USAID flexibility in implementing programs. Unfortunately, this flexibility has gone almost solely toward cash donations or vouchers. As seen in the graph below, market-based assistance makes up close to 60 percent of food aid funding. While NAWG supports flexibility in food aid assistance, including monetization when absolutely necessary, the Subcommittee should consider prioritizing in-kind donations of U.S. commodities.

FY 2020 Funding by Modality*

* All data included in this presentation is preliminary and will be shared, when final, in the *FY 2020 International Food Assistance Report*.

Another area of concern is the FAS staffing levels in overseas offices. FAS staff play a key role and work in nearly 100 offices across approximately 180 countries. These staffers play a crucial role in increasing trade opportunities across these countries, which helps support and create jobs here at home. Additionally, financial support is needed to support administrative costs at FAS, which would allow full MAP and FMD funding to be used for export promotion and market development. Without long-term sustained investments and support for FAS staffing in overseas offices, our trade missions will be at a competitive disadvantage compared to our main competitors in finding new opportunities and executing the great work they already carry out.

It is important that USAID and USDA continue to work together on all U.S. foreign aid programs, and NAWG encourages greater cooperation moving forward. Each agency brings unique skillsets to the operation and provides value in different ways. NAWG believes that implementation and funding of LRP should go through USAID, while the USDA should retain administration of Food for Progress programs.

Conclusion

NAWG's policy committees and board of directors are evaluating these programs' effectiveness. We are working to finalize our policy priorities over the coming weeks. These farm bill priorities will be shared with you and your staff upon being finalized. As the House Agriculture Committee and the various subcommittees continue to have these hearings and reflects on programs authorized under the 2018 Farm Bill, I look forward to working with the Members of the committee and their staff to help craft the next farm bill that works for wheat growers and all American agriculture. Farmers play a key role in helping sustain our rural communities and feeding the world. As the farm bill process continues, I would urge judicious and expeditious review of authorized programs and work to ensure a full reauthorization of farm bill programs prior to the expiration of the current farm bill on September 30, 2023.

We look forward to continuing to work with you to ensure a strong U.S. farm economy. Thank you again for this opportunity.

Sincerely,

NICOLE BERG,
President,
NAWG.

The CHAIRMAN. Well, we thank you, Ms. Berg, for your testimony and your background and experience. That is eastern Washington State that you farm in?

Ms. BERG. It is.

The CHAIRMAN. Terrific.

Our last witness on this panel wins whatever prize we can award this individual for testifying from the longest distance. Dr. Arif Husain is the Chief Economist of the World Food Programme, and he is joining us today from the Democratic Republic of Congo. So, Dr. Husain, I don't know what time of the day or night it is there, but we really very much appreciate your taking this opportunity to inform us on the challenges that we are facing with world hunger in the areas that we are very familiar with, and the new crisis that we have spoken about this morning with regards to Russia's invasion of Ukraine and the additional impact it is having on food supplies.

So, your thoughts and comments will be very much appreciated this morning. What time is it there, Dr. Husain?

Dr. HUSAIN. Sir—good afternoon, sir. I am just on my way. I was so concerned about the connection that I postponed my leaving until tonight. So, I am in still in Rome.

The CHAIRMAN. Oh, Rome? That is still the longest distance for today's witnesses in terms of testifying, but what time is it in Rome?

Dr. HUSAIN. Sir, it is just after 6:00 p.m.

The CHAIRMAN. Well, we thank you. Please begin your testimony. It is 5 minutes, so I think you are familiar with this process and we look forward to hearing from you.

**STATEMENT OF ARIF HUSAIN, PH.D., CHIEF ECONOMIST,
UNITED NATIONS WORLD FOOD PROGRAMME, ROME, IT**

Dr. HUSAIN. Thank you, sir. Chairman Costa, Ranking Member Johnson, and distinguished Members of the House Agriculture Subcommittee, thank you. I greatly appreciate the opportunity to brief this Subcommittee on the United Nations World Food Programme's efforts to assist ever-increasing numbers of people with food assistance.

Today, our world is not moving towards, but away from zero hunger, and the costs of humanitarian response is soaring while resources are more constrained.

But first, I want to thank Members of Congress from both sides of the aisle and both chambers for their continued support of the World Food Programme. The United States is our largest partner, and we share an important history that dates back to the organization's very founding in 1961. The United States is our largest donor, and we deeply appreciate our partnership with the American farmers and agribusinesses.

The quantity and quality of U.S. commodities is invaluable to our operations, and it is critical to our efforts to save lives, but also change lives around the world. Last year, the United States provided a record \$3.86 billion to our World Food Programme, and a significant portion came through programs under the jurisdiction of this Committee. As a share of value United States in-kind donations constituted 17 percent of WFP's total food procurement in

2021. We are very grateful for the commodity support we receive through Title II emergency programs and the McGovern-Dole school feeding program.

While WFP has increased its cash-based assistance portfolio in recent years, that does not mean that food transfers have become any less important. In fact, WFP benefits from having a balanced toolbox of food assistance modalities. We offer cash-based assistance where supplies are ample, markets are functioning, and inflation is under check, and we provide in-kind food assistance where markets are disrupted, food availability is limited, and inflation is a concern.

The war in Ukraine has underlined the importance of in-kind assistance as well, which has a critical role in responding to domestic supply shortages which may soon be triggered in countries reliant on grain imports from the Black Sea region. Indeed, we cannot adequately speak to the current global hunger crisis and the importance of American food aid programs without addressing the conflict in Ukraine, which has global repercussions for food insecurity. It has caused deep upheaval in global food and energy markets, steep rises in international prices for basic staples, fertilizers, and energy, equal to those last seen in the high food and fuel crisis of 2008 or 2011. But today's price hikes are perhaps even worse, because previously, we did not also have to deal with COVID-19 or wars in Ethiopia, Yemen, Syria, and northeast Nigeria.

Sir, in 81 countries where WFP operates, up to 276 million people were already facing severe hunger crises or worse conditions. Now, the Ukraine war would easily push another 47 million people worldwide into acute hunger. This means that up to 323 million people would become acutely food-insecure just this year. They will need urgent food, nutrition, and livelihood assistance. Refugees, returnees, asylum seekers, and internally displaced persons are particularly vulnerable.

WFP therefore plans to assist about 145 million people in 2022. This is an even higher number than in the past 2 years when WFP assisted a record-breaking 115 million beneficiaries in 2020, and a record 128 million beneficiaries in 2021. This year, WFP's assistance will cost approximately \$20 billion. Unfortunately, however, our funding requirements are growing much faster than our contributions, and today, we face a funding gap of about 50 percent.

While WFP has always faced funding gaps, they have previously not been this wide or in such a difficult environment, as other UN agencies are being forced to cut out assistance at the same time. This makes cuts to WFP assistance, which offers a lifeline to millions of people, much more painful than they would have been in the previous years. The Ukraine crisis only adds to the funding gap by increasing commodity and transportation costs. Buying from further afield implies higher transport costs and delivery times. This means that WFP's monthly costs are expected to be \$71 million above their 2019 average. This is a 44 percent increase and enough to cover one lifesaving daily meal for 3.8 million people for a month. WFP is increasingly confronted with decisions of who to support and among those in need, and who not to support. Which child lives, which child dies? The costs of humanitarian inaction are tremendous, especially for people on the edge of starvation who,

in worst cases, will pay with their lives. Failing to mobilize sufficient and timely funds for humanitarian assistance also means that donors bear the cost of inaction.

As soon as refugees arrive at donor countries doors, the new host governments start literally paying the price for not acting earlier. For every U.S. dollar spent on forcibly displaced persons in the developing world, \$70 U.S. dollars goes to an asylum seeker in a donor country. WFP is extremely grateful for the sustained commitment of the American people to addressing global hunger and responding to urgent humanitarian crises around the world. We thank you for your continued support, partnership, and collaboration.

Thank you, Mr. Chairman, and I am ready for any questions. Thank you very much.

[The prepared statement of Dr. Husain follows:]

PREPARED STATEMENT OF ARIF HUSAIN, PH.D., CHIEF ECONOMIST, UNITED NATIONS WORLD FOOD PROGRAMME, ROME, IT

This brief is being provided on a voluntary basis and should not be understood to be a waiver, express or implied, of the privileges and immunities of the United Nations and its officials under the 1946 Convention on the Privileges and Immunities of the United Nations.

Introduction

Chairman Costa, Ranking Member Johnson, Members of the House Agriculture Subcommittee on Livestock and Foreign Agriculture, thank you for convening this hearing on “International Trade and Food Assistance Programs” as they relate to the farm bill.

Today, I will provide a briefing on the United Nations World Food Programme’s efforts to assist increasing numbers of people in a world that is not moving towards, but away from zero hunger, and where the humanitarian response is becoming more expensive with constrained resources.

Before I do that, I want to thank Members of Congress—from both sides of the aisle and both chambers—for your continued support of the United Nations World Food Programme. The United States is WFP’s largest partner, and we share an important history that dates back to the organization’s very founding. Last year, the United States provided \$3.86 billion in support to WFP, and a considerable amount was provided through programs under this Committee’s jurisdiction.

We also deeply appreciate the partnership we have with the American farmer. The United States is the largest contributor of commodities to international food aid programs and is critical to our efforts to alleviate hunger around the world. The quantity and quality of U.S. commodities is invaluable to our operations, and we could not do the work we do without the support and engagement of American farmers and agribusinesses.

U.S. Food Aid Programs

The United Nations World Food Programme has been a U.S. partner for the P.L. 83–480 (Title II) and McGovern-Dole International Food for Education and Child Nutrition programs since their inception and remains today the largest recipient of American-grown commodities provided through those programs. As a share of value, United States in-kind donations constituted 17 percent of WFP’s food procurement in 2021. WFP is encouraged by the proposed increase of ten percent in Title II funding for FY 2023, as reflected in the White House FY 2023 Presidential Budget Request released last week.

While WFP has increased the amount of assistance it provides through cash-based assistance in recent years—from US\$210 million in 2011 to US\$2.3 billion in 2021—that does not imply that food transfers have become any less important. WFP values a balanced “toolbox” of food assistance modalities. The use of commodities in WFP programming has remained relatively constant over the last decade, increasing slightly from 3.6 million metric tons (mt) in 2011 to 4.4 million mt in 2021.

Cash-based assistance needs functioning markets. If markets are not working properly and responding to an increase in demand with rising supply, cash-based transfers can fuel inflation. Moreover, the current high food inflation rates in many

poor economies pose a challenge for cash-based assistance. When money rapidly loses value, a set transfer value won't go as far anymore as it used to, making it difficult to ensure that beneficiaries are able to cover their food and other essential needs.

In-kind food assistance, on the contrary, can put downward pressure on food prices. What is more, especially, in the scenario of a prolonged war in Ukraine, in-kind assistance can help respond to local supply chain breaks that the conflict could trigger in countries dependent on Black Sea grain imports.

In short, the United Nations World Food Programme is grateful for the commodity support provided through the Title II emergency program and the McGovern-Dole School Feeding program. These resources are especially important today given volatile market and currency conditions faced in many countries and prolonged humanitarian emergencies driven by conflict that destroy markets and reduce domestic production of food.

State of Global Hunger

The world is not on track in its efforts to achieve Zero Hunger. Progress on SDG2 was waning even before the COVID-19 pandemic began causing economic turmoil and eroding food security. In 81 countries where WFP operates, up to 276 million people are acutely food-insecure in 2022 and in need of urgent food, nutrition, and livelihoods assistance. This is a record high, and an increase of 126 million people compared to before the pandemic. Refugees, returnees, asylum-seekers, and internally displaced persons are particularly vulnerable.

There are more than ½ million people (670,000 people) facing famine-like conditions (IPC/CH Phase 5, Catastrophe/Famine). Some 400,000 of these people are in parts of Ethiopia affected by the Tigray crisis—the highest number recorded since the 2011 famine in Somalia—while the remaining people are in South Sudan and Yemen. 44 million people living across 38 countries currently face severe hunger emergencies (IPC/CH Phase 4) and are one step from falling into famine. This number has risen from 27 million in 2019.

Ukraine Crisis

We cannot adequately speak to the current global hunger crisis and the importance of American food aid programs authorized through the farm bill without addressing the conflict in Ukraine and the ripple effects it has produced. The conflict happens at a time when global hunger is already at record levels. This is a conflict that has global repercussions. I commend the bipartisan efforts already taken by the U.S. Congress to address the way the war is impacting global food and fuel prices, putting millions of people at risk of food insecurity in 2022 and beyond.

In recent years Ukraine and Russia have become “major engines” for feeding the world. With these countries critical suppliers to global markets for wheat, maize, and other food commodities as well as energy and fertilizer, the Ukraine conflict has caused an upheaval in global food and energy markets. Steep rises in international prices for basic staples—notably wheat and maize—in recent weeks reflect this, resulting in a food price environment that resembles the 2008 or 2011 crises. Given heavy reliance on world commodity markets by numerous countries, prices are rising even in places that do not source their wheat, maize, or other commodities directly from Ukraine or Russia.

This is especially important for countries that rely on global trade for their food supplies. The war in Ukraine does not immediately mean that there will a shortage of wheat production in the world. Much of the world's wheat is still consumed where it is grown; exports represent only a fraction of the global wheat supply (of the total global wheat production of 775 million tonnes in 2021–22, only 194 million tonnes are traded internationally).

Still, Ukraine and Russia account for a large portion of the world's wheat exports and countries that rely heavily on grain imports from the Black Sea like Lebanon, Yemen or Egypt will be greatly affected. Medium- and long-term global food security implications of the Ukraine crisis will depend on the duration of the conflict. If the conflict is resolved on the ground within the next 5 to 6 weeks, there could be a quick return to pre-conflict realities. However, if the conflict continues beyond 2 months, we face a completely different situation.

In the case of a prolonged conflict, the absence of farmers or fuel shortages during critical periods for tending new crops could imply massive cuts to Ukraine's upcoming grain harvests. This includes planting for corn, barley, and sunflower seeds, which should begin this month, and the next major wheat harvest, which should take place this summer. Meanwhile, a lack of fertilizer supplies from Russia and continuously high energy costs could constrain yields in many countries around the

world. Some 25 countries depend on Russia for 30 percent or more of their fertilizers.

In this worst-case scenario, across the 81 countries with WFP operations, we estimate that acute hunger could rise by 47 million people (sub-Saharan Africa is most affected) from a pre-war baseline of 276 million people who were already in the grip of acute hunger. This means that up to 323 million people could become acutely food-insecure in 2022.

COVID-19

The current price hikes unfold in a much more difficult global context than previous price crises. There are two reasons for this: First, the world was more stable in 2008 than it is today. Several major conflicts have erupted since. The civil war in Ethiopia began in 2020, the Yemeni civil war in 2014, the Syrian civil war in 2011 and the conflict in Northeast Nigeria in 2009. Second, the world has still not fully recovered from the fallout of the COVID-19 pandemic, leaving it in a difficult place to cope with yet another crisis.

Global food prices have been on the rise since mid-2020. The Food and Agriculture Organization of the United Nations Food Price Index, a measure of the monthly change in international prices of a basket of food commodities, reached a new all-time high in February 2022. Similarly, crude oil prices, which have an enormous impact on food prices, have steadily increased since the spring of 2020, recovering from a pandemic-driven plunge and then surpassing their levels of previous years. When the price of gas goes up, everything else follows.

Domestically, food prices have risen by at least 15 percent in 31 countries over the past year, rendering essential purchases unaffordable for many. Three countries—Lebanon, Venezuela and Sudan—have been drastically affected, with triple-digit food inflation rates. An additional 29 countries have experienced food price rises between 10 and 15 percent over the past year and 55 countries between five and ten percent.

Skyrocketing inflation is often associated with depreciating currencies. The currencies of these three countries—Lebanon, Venezuela, and Sudan—are highest in terms of year-on-year food inflation, and each lost more than 50 percent of their value over the past year. WFP currently flags 22 currencies as hotspots or in alert status, indicating annual value losses that are unusually high, rapidly accelerating or both.

At the same time, incomes are still depressed from COVID-19. Labour markets are struggling to recover and, after staggering losses in working hours in 2020 and 2021 (equivalent to 258 million and 125 million full-time jobs), the International Labour Organization projects a working hour deficit equivalent to 52 million full-time jobs for 2022. This implies sustained losses in income and purchasing power, on top of inflation.

The world has taken extraordinary measures to safeguard lives and livelihoods during the COVID-19 crisis—at an unprecedented cost. Fiscal support and monetary measures that governments put in place during the first 18 months of the pandemic to stave off economic collapse amount to US\$26 trillion, nearly 30 percent of global gross domestic product. Debt is at record levels. About 60 percent of low-income countries are at high risk or already in debt distress, compared with 30 percent in 2015. Governments are less economically resilient after 2 years of dipping into their coffers to soften COVID's economic blow on their citizens. This means that governments are tapped out too.

Funding Shortfalls

WFP aims to assist increasing numbers of people, however, faces a significant funding gap. The Ukraine crisis not only unfolds in the aftermath of COVID-19 but with other drivers of hunger like conflict and climate change unabating, other crises—such as climate-related crises in Eastern and Southern Africa—are still there.

WFP, therefore, plans to step up and assist increasing numbers of people: 145 million beneficiaries in 2022. This is an even higher number than in the past 2 years, when WFP assisted a record-breaking 115.5 million beneficiaries in 2020 and a record 128 million in 2021. This year WFP's assistance will cost approximately US\$20 billion.

Funding requirements have unfortunately increased faster than contributions and today WFP faces a funding gap of 50 percent. While WFP has always faced funding gaps, they have previously not been to this extent or in this environment. As other UN agency and government budgets are similarly under strain, everyone is forced to cut assistance at the same time. This makes cuts in the lifeline of WFP assistance much more painful for people than they would have been in previous years.

The Ukraine conflict only adds to the funding gap, by increasing WFP's operational costs and constraining its response at a time when it is needed the most. While other exporters of staple food commodities should—at least partially—be able to make up for the shortfall in supplies to global markets from the Black Sea region, these commodities are not only higher priced, but have added operational costs. Buying from farther afield implies higher transport costs and delivery times—for WFP and everyone else dependent on purchases in international markets.

In view of the recent hikes in container costs, this is an important consideration. The cost per container reached US\$4,000 in 2021, four times as much as its cost in 2019 (US\$1,000). With rising prices in international markets for food commodities, WFP's food procurement costs were already up by US\$42 million per month at the end of 2021 compared with their 2019 average. Together with an estimated US\$29 million increase in WFP's monthly costs for food and fuel due to the price increases related to the Ukraine conflict, this means that WFP's monthly costs are expected to be US\$71 million above their 2019 average. This is an increase by 44 percent and enough to cover one daily ration for 3.8 million beneficiaries for a month.

Conclusion

Unless the Ukraine crisis is resolved soon and stops pushing up needs while simultaneously making the humanitarian response more expensive, the global repercussions of the conflict could become much worse. As needs rise and the economic environment undermines assistance, WFP is increasingly confronted with the decision of who to support out of those in need—and who not to support.

The costs of humanitarian inaction are tremendous, especially for people in need, who in the worst case pay with their lives. Failing to mobilize sufficient and timely funds for humanitarian assistance also means that donors bear the costs of inaction. As soon as refugees arrive at donor countries' borders, the new host governments start—literally—paying for not having acted earlier.

Looking back at the Syrian refugee crisis, Germany's total refugee-related costs from 2016 to 2020 amount to a shocking US\$125 billion at the Federal level. While this includes funds designated to fighting the root causes of forced displacement, more than US\$80 billion went into domestic social transfers, transfers to states and municipalities, integration, as well as arrival, registration, and asylum procedures. For every U.S. dollar spent on a forcibly displaced person in the developing world, US\$70 goes to an asylum seeker in a donor country.

Not even a decade after the Syrian refugee crisis, the world risks repeating it. With the Ukraine conflict contributing to a deterioration of existing crises, such as in Afghanistan, regional destabilization and a massive influx of refugees to western countries could soon become a reality. The war has food security implications not only in Ukraine but risks causing collateral damage all over the world, putting up to an estimated 323 million people in a situation of food insecurity in 2022. The world does not need another crisis in the current context that is already beset by extreme difficulties.

Despite the very bleak situation, WFP is encouraged about USG's efforts to leverage the resources available under the Bill Emerson Humanitarian Trust and the sustained commitment from the American people to respond to some of these urgent crises around the world.

The CHAIRMAN. Well, thank you, Dr. Husain for your time and also the comparative analysis that you provided us with regards to the challenges the World Food Programme has had in the past compared to the challenges today and the resources available.

The Members at this time will be recognized in the order of seniority, alternating between the Majority and the Minority Members. We have heard our four witnesses who have done a terrific job, and every Member will be recognized for 5 minutes to ask questions, and for those of you who are operating remotely, please keep your microphones muted until you are recognized so that we can minimize background noise.

Ms. Harden, you talked about the sustainability, which is very important to me. How does the sustainability factor into USDEC's work to market and promote dairy products globally?

Ms. HARDEN. Thank you, Mr. Chairman. I will tell you, I am so proud of the dairy farmers and our dairy industry for their commit-

ment to sustainability. I believe that we have the most sustainable dairy in the world. Our farmers and processors have set goals. This is a journey. We don't have all the answers today, but I do believe it is a big part of who we are and who we are going to be as a trading partner.

And sir, we are asked all the time. Our customers ask us about sustainability, and they understand we are good for people, but we also have to be good for the planet and we are committed to that.

The CHAIRMAN. Right, and we have challenges and I am very familiar with them, three-generation dairy family in California.

We have kind of a bit of humor that we use oftentimes, and this relates to the famine and the shortage of food products that we are anticipating, that what a dairyman does when prices are up, they produce more milk. What do dairy folks do when prices are down, they produce more milk. I am not sure that model works anymore, but I know there is a lot of production in powder, and I am wondering as I said earlier, you may have heard, commodities that we have surpluses of, I am wondering what your thoughts might be on how this dry powder can be used, it has a long life and it can be used for protein in areas where we are having hunger and food shortages.

Ms. HARDEN. Most definitely, sir, and I love your anecdote, and that is one I have heard my whole career in dairy.

I believe we can be a part of helping with malnutrition and hunger. Dr. Husain can verify this, but I was told that some of the biscuits that are going to Ukraine do include skim milk powder in them, and I believe there is more opportunity for the U.S. RUTF products that have such high protein, high energy. I believe dairy can play a bigger part in—

The CHAIRMAN. Well, let's take a look at that.

Mr. O'Keefe and Ms. Berg, CRS is requesting full flexibility for non-emergency in Title III Food for Peace programming. This would mean that all of the non-emergency Title III funds could be used in cash vouchers instead of commodities. Can you walk us through CRS's rationale behind this recommendation, and would that flexibility in use of commodity food aid for non-emergency programming together make sense? I am just—there were—not all the funds were spent on those commodities in the last year. Go ahead.

Mr. O'KEEFE. Thank you so much. Great question. Let me—we fully support the use of commodities in Title III programs where it is appropriate, and what we are recommending is that decisions about the mix of cash and commodities be made at the local level based on the very different contexts in each country.

The way the program is now with 20 percent cap on 202(e), which was mentioned by Assistant to the Administrator Charles, USDA and USAID are forced to make decisions country-by-country based on these aggregate—

The CHAIRMAN. Do you think we should lift that cap?

Mr. O'KEEFE. I do think we should lift that cap, and I think it would allow better, more effective programs in many situations that are more responsive.

Whether it would result in more or less total U.S. commodities would remain to be seen, but it would result in more efficient and effective programs country-by-country.

The CHAIRMAN. Ms. Berg?

Ms. BERG. So yes, I know that they did have some flexibility in the last farm bill. Having been to Africa and witnessed a refugee camp, we definitely support in-kind commodities. We promote it. It was great to see that big bag of U.S. wheat sitting there and everybody embracing the fact that we are there.

We do want a balance between the two. We did see the need for cash in how they create their camps and how they create the self-worth for the refugees as well, and it helps out with hospitals and different things.

The CHAIRMAN. Well, we have a lot of refugees from Ukraine, over four million now in Europe.

Dr. Husain, do you care to comment?

Dr. HUSAIN. Sir, I agree with both. I mean, essentially it is about having the in-kind assistance, in-kind commodities. There is space for that, but also, you would need the cash-based on—the additional cash because what it does is it helps for people to keep the food, because sometimes people will have to sell their food on discount to get to other basic necessities, maybe health stuff, maybe school stuff, maybe something else.

So, as long as these decisions are made where food aid also goes together with cash assistance and it is well thought out, it is in benefit of everybody, including the American farmer.

The CHAIRMAN. Yes, I don't know if you—my time has expired, but quickly comment. The previous panel talked about our efforts to cooperate with the European Union and the initiatives that are going on as a result of this invasion of Ukraine and the impacts. Was the World Food Programme also with the UN and others a part of this collaborative effort?

Dr. HUSAIN. Yes, sir, they are listening to us. We are in an advisory role, basically, and what we are seeing is that it is maybe a production problem, but it is also economic access and physical access problem.

Right now, there may be food in different parts of the world, but to get that food to the places where it is needed is really expensive, both in terms of cost, but also in terms of time.

The CHAIRMAN. Good point.

My time has expired. I want to recognize my friend, the gentleman from South Dakota, who is always focused, Representative Dusty Johnson.

Mr. JOHNSON. Thank you, Mr. Chairman. Now, that is a lot of pressure. My line of questioning has to be focused or I make us both look silly.

My questions will be for Ms. Harden. I noted with some disappointment that last week Ambassador Tai had noted that the Indo-Pacific Economic Framework was not going to have any reduction in tariffs, and this is coming with a backdrop where I think American producers are increasingly facing some uneven playing fields. Of course, competitiveness is really a relative measure, right, so the extent other countries are entering into quality trade deals, that can disadvantage American producers if we are not also out there trying to make sure that we are opening up new markets and reducing barriers.

So, Ms. Harden, I have a two-part question for you. Number one, give us some sense of the barriers that American dairy producers and processors face in the Indo-Pacific region, number one, and then number two, give us sort of the state of play as you understand it, and do you think that Ambassador Tai and others will aggressively pursue the reduction and elimination of non-tariff trade barriers, and any other thoughts on that topic?

Ms. HARDEN. Thank you, sir, and thank you for your support in continuing to make sure that agriculture is a focus of the framework.

There are certain things that I hope are on top of their list and want to streamline really overly burdensome regulatory requirements on our dairy facilities and plants, trying to get product in there. We believe that is something that can be addressed and should be addressed.

I talked about it in my comments briefly about really protecting our common food names, so the Europeans have really made it very hard for us to have an even playing field with products like parmesan and feta, so that is another area we really hope the Administration will focus on. And we just—we really do. We are going to continue to keep pressuring on to lower this most favored nation tariffs to really ensure we have a level playing field, because we do not in so many of those cases, sir.

Mr. JOHNSON. So, in the Indo-Pacific region, are there particular markets that your members are most excited about, interested in, and that this Committee should focus on most attentively?

Ms. HARDEN. Certainly. Indonesia, as I mentioned, Malaysia, the Philippines, Vietnam, all of those we believe have great potential. The customers there, the consumers there love our products. They want our products. We want to be able to get them to them.

Mr. JOHNSON. So, do you have—I mean, what is your sense of where we—I mean, are we making progress on this front, and where do you—what do you see the developments looking like here in the weeks and months to come?

Ms. HARDEN. Well, progress—we certainly are continuing. If you look globally, I would say we do have progress. We continue to be very aggressive in key markets, certainly in Indonesia, Pacific, and Southeast Asia, Mexico, Latin America, the Middle East, Northern Africa, but we are at a disadvantage in many of those places. So, keeping the pressure on to make sure there is a level playing field. We have great products. There is demand. It is a tight market right now, as you probably know, with product because of production from the EU and New Zealand, as well as the U.S. being very tight, but we are excited about exports. If you look at even our numbers that just came out this week, dairy farmers—U.S. dairy farmers and manufacturers are stepping up and trying to meet the demand globally.

Mr. JOHNSON. Now, my friend, the Chairman, he and I have been working together on a number of supply chain issues, and so, my last question, Ms. Harden. I mean, any reactions or things you can share with us? I mean, I know the dairy industry has been hit hard by the supply chain disruptions. In fact, I think the number for the first half of last year was \$1.3 billion. What else can you tell us?

Ms. HARDEN. It was a little better right after Christmas and some of the efforts led by you, frankly, and other Members of this Committee have been tremendously helpful. The legislation that is passed, introduction of additional legislation by you and Chairman Costa are sending a message to customers around the world that the U.S. is taking this issue very, very seriously.

But we don't—we are not out of the woods. It is still very [inaudible].

Mr. JOHNSON. We lost you for a minute there, Ms. Harden, but you know, amen.

Ms. HARDEN. I am sorry. We have suggested other locations as well.

Mr. JOHNSON. Very good. Thanks, Ms. Harden. That is well said. Mr. Chairman, I yield back.

Ms. HARDEN. Thank you.

The CHAIRMAN. Good points, Mr. Johnson, and we will continue to work on the supply chain issue. It is so important.

The chair will now recognize the gentleman from Pennsylvania, Mr. GT Thompson, for his continued attention to this important hearing today. We thank you.

Mr. THOMPSON. Mr. Chairman and Ranking Member, thank you so much. This has been great, and thank you to the panel. I really appreciate the experience that you all bring.

Ms. Berg, your testimony mentions concerns with staffing in overseas FAS offices. I mean, we can do all kinds of great programs but if we don't have the people on the ground in different places, whether it is in the fields here at home or overseas, it is all for naught. Can you expand upon this concern, including what you have seen and heard, and your suggestions to USDA FAS to rectify these shortages?

Ms. BERG. So, one of the things we are looking for is to double MAP and FMD funding to help with resources overseas. One of the things that we have noticed with MAP and FMD funding is that 15 years ago, you had certain cooperators and now through specialty crops it is just kind of growing and growing. And so, pieces of the pie are kind of getting smaller and smaller to each commodity. So, that is why we definitely need more funding for these programs to get boots on the ground and have a presence in these countries. So, we definitely want to have some sort of funding mechanism to help with staffing levels.

Mr. THOMPSON. So, we have actually been a victim of our own accomplishments of expanding innovation and science with—and I think that is a great point.

Dr. Husain, thank you for your service. Please give my best to Mr. Beasley when you see him, a dear friend.

I appreciate your recognition of the role of American farmers in making your work of feeding those in need around the world possible. Likewise, you acknowledged the importance of a “balanced toolbox of food assistance modalities.” Can you elaborate on what you mean by that, and do you worry that it is kind of shortsighted of your colleagues to continue to chip away at the in-kind donations required under Food for Peace?

Dr. HUSAIN. Sir, what I mean by that is that if you go back about 10 years, the cash-based programs were very, very small part of

the World Food Programme, which was about \$210 million. Today, that is \$2.3 billion, so there has been a substantial growth on that side.

But that growth has not meant that the food aid—in-kind food aid went down. In-kind food aid also went up from about 3.6 million tons to about 4.3–4.4 million tons right now over the same time period. So, what we are seeing is that there is—because of these rising needs, it is the base of what is required is becoming bigger and bigger. And the way I see this is that because we are sitting at a 50 percent gap in terms of what we expect to get *versus* what is needed, there is opportunity for growth both on the in-kind side, as well as on the cash side. Because again, I would say is that what we don't want to do is have people sell their food because they needed to meet some other essential need. So, provision of both of them hand in hand goes very far.

Thank you.

Mr. THOMPSON. Thank you.

Mr. O'Keefe, thank you for your service with Catholic Relief Services. You are a force for good around the world.

Your testimony alludes to the idea of resiliency and resilience building. Can you tell us how these efforts are unfolding in CRS's work, and how each of the CRS farm bill recommendations build resiliency?

Mr. O'KEEFE. Sure. So, thank you so much, Congressman, and thanks for the kind compliment.

So, I am going to talk about our program—McGovern-Dole program in Sierra Leone. The President of Sierra Leone, who I had the opportunity to meet a year and a half ago at the Department of Agriculture here, thanked CRS because he is trying to build a nationwide local school feeding program on the foundation and the spine of the USDA-supported McGovern-Dole program. And that is a key ingredient to how he sees resilience of government services, and particularly food support for the most vulnerable people in his country. We are using U.S. commodities mixed with cash to build the capacity to link schools with farmers to buy local produce so that at the end of the 5 year program, the country of Sierra Leone will be self-sufficient in its school feeding program. That is going to make that country more resilient, make those schools more resilient, and we think it is a huge contribution to the development of that society.

Mr. THOMPSON. Okay. My time has expired, but I don't want to miss the opportunity just to say thank you to Ms. Harden for your leadership and your service with USDA formerly, and now with the U.S. Dairy Export Council. As someone who comes from a long line of dairy farmers, some days I think there is milk flowing through my veins. I am just really appreciative of your leadership and your service there. So, I look forward to continuing to work with you.

Ms. HARDEN. Thank you.

Mr. THOMPSON. Mr. Chairman, my time has expired.

The CHAIRMAN. Well, thank you very much, Representative Thompson. We really appreciate all of your contributions, and we all thank the witnesses and the efforts on mission for mobilization on Catholic Relief Services. We really appreciate the good work you folks do as well.

Our next Member is Representative Barry Moore from Alabama, and then I believe we have one other Member who is in queue, and if that is the extent of it, then we will close the hearing.

Mr. Moore from Alabama's 2nd District.

Mr. MOORE. Thank you, Mr. Chairman. I appreciate it.

Dr. Husain, each day reveals more dire news from Ukraine. Your testimony spent some time addressing the conflict and its current and potential implications. Can you please expound on that testimony a little, and also include any updates that you might have from yesterday or maybe this morning?

Dr. HUSAIN. Yes, sir. In Ukraine, sir, it is one of the worse crises which I have seen, and I have seen many. What is happening there is unacceptable, and being right in the middle of that at World Food Programme, we are assisting about one million people already inside the country. Our goal is to get to at least three million people very, very soon, within weeks, and up to six million people by June.

Sir, in our supply chains, we already have 40,000 metric tons of commodities which we are trying to move. It is not only about when you are displaced, and over ten million people are internally displaced. It is not about giving wheat or flour; it is about giving commodities which they can eat right away. So, prepared commodities and doing that supply chain is a big task, but we are up to it. We have over 176 people inside and in the six neighboring countries doing this job.

And I would like to say that, sir, what is happening in Ukraine has huge ramifications for the rest of the world. Where in country after country, 44 million people are one step away from famine, 44 million people one step away from famine. We are cutting their rations by half. Why? Because we don't have enough resources. And sir, this is not going to go away until we sort out the root causes, and what is the biggest root cause? It is conflict. Conflict everywhere. In Ukraine, that is the latest. But Yemen is still there. Syria is still there. Northeast Nigeria is still there. Ethiopia is still there.

And sir, the other last thing that I want to say is that because of Ukraine, it doesn't mean that other conflicts stop. We have climate shocks. I am seeing things out of Ethiopia in the Somalia region which remind me of 2011 Somalia where 260,000 people died before a famine was declared according to Johns Hopkins University. So, we are looking at some very nasty things, and I don't think it is going to improve, because if this war doesn't get resolved in the next couple of months, fall is going to be worse than what we are seeing right now. I am sorry to be saying all of these things, but that is what is out there.

Mr. MOORE. Well, we appreciate it, obviously, and I was in Ukraine in August, and I know that us as a Committee and as a nation, we appreciate your efforts, and we will continue to keep you in our prayers. But thank you for the work you do.

Dr. HUSAIN. Thank you.

The CHAIRMAN. The Chairman still has time on your clock, unless you yield the balance of your time.

Mr. MOORE. Yes, Mr. Chairman, with that I will yield back. Thank you.

The CHAIRMAN. All right, thank you. That was good questions, good focus, good response, Dr. Husain.

The next Member that I have on my queue line is Representative Baird from Indiana's 4th.

Mr. BAIRD. Thank you, Mr. Chairman. I really appreciate you holding the second part of this panel and this hearing.

My first question really goes to Ms. Harden, and it deals with the fact that Ambassador Tai recently stated that free trade agreements are a 20th century tool, and that our competitors, notably the European Union, are forging ahead and securing preferential market access for their agricultural producers through comprehensive trade agreements.

So, Ms. Harden, are you concerned about where we are in making those kinds of trade agreements, and how that impacts American produced products?

Ms. HARDEN. Yes, sir. To be perfectly honest, I believe we have to use every tool available. We do feel like we are falling behind. Our largest competitors, as I mentioned earlier, with the EU and New Zealand, they take full advantage of all of the tools and I believe we just have to as well. We know we have good products. We know we can be competitive, but it has to be a level playing field. So, everything that can be available, we actually need to be using, sir.

Mr. BAIRD. I really agree with you. One of the things that we have in our favor in addition to being able to really get products to other countries is we really have high quality products. We have the ability to produce and our farmers and ranchers can really be proud of that, and we can be proud of our products moving overseas.

I guess I might change direction just a little bit, and Dr. Husain, the World Food Programme is a critical partner for U.S. and getting food into the disaster zones, and delivering longer-term assistance through USDA's McGovern-Dole Food for Education Program. Can you tell us a little bit about your success in using these nutritionally dense U.S. grown food in your McGovern-Dole projects, like fortified rice, corn-soy blend, and dry beans? Give us some idea how successful those programs are.

Dr. HUSAIN. Sir, we are, in fact, McGovern-Dole, we are proud partners of that. Of the 40 or so countries where it is helping school children, we are in ten countries, so about $\frac{1}{4}$ of all countries we are working with McGovern-Dole. And that itself says we do that because we believe in it. We are—we see—like Mr. O'Keefe was saying, we see the value of the child providing that nourished meal, not only as something which is for the child, but really is for the community. And that—bringing in the community support on that side. Essentially, putting the seeds for that is critical, because then communities can take over. They can build. And I think this is the real value of the McGovern-Dole initiative, and the more we can do, the better it is.

And the other thing, sir, I would suggest is that we are present in 80 countries. We know these people. We know these markets, and sometimes, we can offer advice on which countries to prioritize, where to prioritize, and I think that would also be quite helpful in

terms of taking these really trusted and proven programs to another level.

Thank you, sir.

Mr. BAIRD. Well, I think it is really—I am glad to hear because I think one way that we can advance civilizations to help themselves is through the children and give them exposure to how to produce food and that sort of thing, and I think that is a real asset.

Dr. HUSAIN. That is true, sir.

Mr. BAIRD. Yes. Well, I thank you very much and appreciate the opportunity to be with you, and I yield back, Mr. Chairman.

The CHAIRMAN. The gentleman yields back, and we thank him for his focus and his participation.

I will now, for closing comments, recognize my colleague, the gentleman from South Dakota, and then I will follow and again, we want to thank our witnesses.

Mr. JOHNSON. There have been a number of references made today, Mr. Chairman, to McGovern-Dole initiatives, and in fact, our colleague from the big 1st of Kansas noted that Bob Dole had held that seat prior to Tracey Mann. I would just note that George McGovern held my seat in Congress. He was not my immediate predecessor, but in the final years of his life, he and I struck up quite a relationship. I think we got to know each other relatively well, and clearly, George McGovern's politics were not my politics. But there were a number of areas upon which we agreed, and three of them were, first off, recognition of the unbelievable efficiency and effectiveness of the American farmer and rancher. Number two, the incredible importance of access to markets, giving those producers an opportunity to help feed the world; and then number three, the incredible power of food, of sustenance, to help link together people with shared values that you spoke about earlier, Mr. Chairman, and about how that humanitarian aid can be a tremendous soft power that makes the world more secure, safer, and freer. And it is not just George McGovern and I that shared those values, Mr. Chairman, they are values that you and I share as well, and shared values of a huge swath of bipartisan Members on this Committee.

So, I just want to close by thanking the panelists on both halves of the panel for so clearly articulating the key issues that are impacting those shared values, and what we can do together in the weeks and months to come to make sure that American producers have avenues for their yields, that communities in crisis receive the help they need, and that shared values are advanced.

The CHAIRMAN. I thank the gentleman for his comments, and I concur on all of the above. And I think this has been a very good hearing. It has been a very good hearing not only because of participation of the Members this morning, but also because of the witnesses. We have had a tremendous level of experience and expertise from this second panel as well as from the first panel, and it certainly resonates on the complex issues that we are dealing with.

And of course, we have discussed this morning how the catastrophic events that have taken place as a result of Russia's invasion of Ukraine without reason, and the effects it is having not only for the courageous, valiant people in Ukraine, but the ripple effect

is it having elsewhere and the added refugee problems that we are dealing with.

Obviously, we are going to continue to find ways to support Ukraine and find ways to, as Dr. Husain pointed out and others, prop up the global food supply chain. I think, while we have not discussed it too much this morning, tapping into the Bill Emerson Humanitarian Trust is one step that could have an immediate impact. But we talked about lifting caps. We talked about a host of other ideas and thoughts dealing with commodities in which we have surpluses here in the United States, and I am heightened to hear how as we look at next year's effort for the reauthorization of the farm bill, the suggestions that our witnesses have made on how we can improve Title III and Title II, and how we can improve the way these programs work.

I am reminded of the fact that the iteration of our flagship international food aid programs was Food for Peace, conceived by another significant American statesman, Hubert Humphrey. Senator Humphrey signed that law in by President Dwight Eisenhower. That takes us back a ways, but it is an indication—and I want to close on this note—on what we can do in this incredible country of ours when we work together on a bipartisan basis. Over the years, our success, I believe, has best been demonstrated when we work together on a bipartisan basis, and certainly, as a colleague of ours once said—I believe he is the ambassador to Japan right now—never let a crisis go to waste. As horrific as this crisis is, it gives us an opportunity to restore the notion that we put our politics—we leave it behind at the water's edge, and these global challenges we are facing not only in Ukraine, but as Dr. Husain mentioned in Yemen and elsewhere around the world, conflict is the source of this and therefore, we as America are stronger and better and more able to work with our allies if we together here in Washington are united and we put our politics aside. And that is part of our challenge. But we have an opportunity here. We know that the storm is in front of us, and we can anticipate because of that what we need to do to address the challenges that we are facing.

As I said earlier this morning, historians will look back 20 years, 25 years from now and they will make determinations on whether or not we made more good decisions than poor decisions. I believe we have an opportunity to work together to make good decisions as it relates to the programs not only in Title III, but the other titles within the farm bill authorization. And we can find ways to use emergency initiatives to address the current crisis that we are facing.

So, with that said, I want to thank the Members of the Committee. I want to thank our witnesses for the good work that you have done, and we will keep all of these thoughts in mind not only today, tomorrow, but as we write the next farm bill next year.

So, with that, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from any witness or any question posed by a Member.

So, with that understood, I thank the witnesses for the terrific job you have done, and this hearing of the Subcommittee on Livestock and Foreign Agriculture is now adjourned.

[Whereupon, at 12:52 p.m., the Subcommittee was adjourned.]
[Material submitted for inclusion in the record follows:]

SUBMITTED ARTICLE BY HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

POLITICO

[<https://www.politico.com/news/2022/04/05/deepening-global-food-crisis-ukraine-russia-00023124>]

Russia's War On Ukraine¹

'We see the storm coming': U.S. struggles to contain a deepening global food crisis

Biden officials are scrambling to limit the damage from fast-spreading food shortages sparked by Russia's war in Ukraine, but they face complex political and logistical challenges.



Alem Ande bakes bread at the Shagarab camp on Aug. 15, 2021, in Shagarab, Sudan. |Abdulmonam Eassa/Getty Images.

By MEREDITH LEE²

04/05/2022 03:24 p.m. EDT

As Russian forces refocus the brunt of their military assault on Ukraine's food-producing southeast, U.S. officials and lawmakers are struggling to help ward off a deepening crisis both inside Ukraine and for fragile economies around the world already reeling from climate disasters and [COVID]-19.

Russia's military is pushing further into Ukraine's wheat fields, which could jeopardize millions of tons of grain set to be harvested in July—threatening sustained shortages in countries across Africa and the Middle East that rely on Ukraine as a major source of their grain and sunflower oil to feed millions of people. The crisis has also contributed to sky-rocketing grain prices, which has made it harder for humanitarian organizations like the United Nations' World Food Program, to respond; the agency says it needs an additional \$16 billion to feed a record 137 million people for the rest of the year.

Ukrainian President Volodymyr Zelenskyy told the U.N. Security Council Tuesday that Moscow has provoked "a global food crisis that could lead to famine in Africa, Asia and other [regions] and large scale political chaos in many countries."

White House and State Department officials are working with USAID and WFP to counteract the shortages, and President Joe Biden has pledged \$1 billion in hu-

¹<https://www.politico.com/latest-news-updates/2022/03/russia-war-on-ukraine-2022-2022-03/>.

²<https://www.politico.com/staff/meredith-lee>.

manitarian assistance “for those affected by Russia’s war in Ukraine and its severe impacts around the world.” But after Congress approved \$4 billion in humanitarian assistance for Ukraine and refugees in nearby countries in the omnibus spending package last month, many GOP lawmakers have little political appetite for further global food aid funding. And while the Administration has some resources it can tap without Congress to send American-grown food to regions in need, agricultural realities, including widespread drought last year, the timing of the planting season and the rising cost of inputs such as fertilizer and fuel, limit how much U.S. crops can help fill the gap created by the crisis in Ukraine.

According to two people familiar with the plans, the Administration plans to unlock additional international food aid in the coming days, including the Bill Emerson Humanitarian Trust—a Federal cash reserve of \$260 million the government keeps to buy U.S. grain and other commodities to send to foreign countries in crisis. Lawmakers are pressing Agriculture Secretary Tom Vilsack to approve a withdrawal of the funds for USAID, which first needs to formally request it. But Congressional aides acknowledge the available funding is a drop in the bucket compared to the total aid that’s needed.

Meanwhile, a push for Congress to provide additional foreign aid fell apart this past weekend. A small group of senators were trying to revive efforts to squeeze \$1 to \$2 billion in international funding into a [COVID]-19 package, including some \$200 million in global food aid. But the plan crumbled after Republicans rejected Democrats’ suggested methods to pay for the aid and several Republicans demanded the Biden Administration reverse a move to lift a Trump-era deportation policy for migrants, the Title 42 public health order being enforced at the southern border, according to three Congressional aides.



Sen. Chris Coons speaks during a Senate Judiciary Committee confirmation hearing on Capitol Hill in Washington, Wednesday, March 23, 2022. (Alex Brandon/AP Photo.)

Chris Coons (D-Del.), one of the senators pushing for the additional food aid, lamented the move as “a serious mistake” and argued that “mass starvation is a real, impending threat.” On top of that, Coons, Republican *Lindsey Graham* of South Carolina and other like-minded senators are warning that such widespread food shortages could trigger mass migration and political destabilization across North Africa and the Middle East, which could in turn threaten U.S. national security. Coons said he will push for a stand-alone bill with global vaccine and food aid funding.

“We see the storm coming and we feel under-prepared to deal with this,” said a senior Senate aide.

Sens. *Bob Menendez* (D-N.J.) and *Jim Risch* (R-Idaho), the top lawmakers on the Foreign Relations Committee, *sent a letter*³ Tuesday asking the Biden Administration to develop a strategy to address the global food insecurity fallout, including “fully leveraging” the Bill Emerson Humanitarian Trust and other programs. But they stopped short of calling for additional funding from Congress.

Officials at the State Department’s Bureau of Economic and Business Affairs are tracking the global food insecurity fallout from Russian President Vladimir Putin’s invasion of Ukraine.

“Vulnerable groups, particularly in the Middle East and Africa, are at higher risk because of Russia’s war,” said Ramin Toloui, who heads the bureau.

Toloui said U.S. diplomatic posts are in close contact with countries whose people are at risk of increased food insecurity and American officials are working with allies, multilateral agencies and international financial institutions to address food insecurity.

We see the storm coming and we feel under-prepared to deal with this.

Senior Senate aide

U.S. officials are particularly concerned about countries such as Afghanistan and Yemen, which are already suffering severe hunger crises, as well as Lebanon, where $\frac{3}{4}$ of the population lives in poverty. The latter country, already in an economic free fall, received about 80 percent of its grain from Russia and Ukraine before the war. In another blow, Lebanon can only store about one month’s worth of wheat after the 2020 Beirut blast that destroyed its major grain silos.

With shortages stacking up, the U.S. is pressing India, Argentina, China and other countries with significant grain reserves to donate some of their supply to the World Food Program or at least release it into global markets. Biden, after meeting with G7 leaders late last month, warned of “real” food global shortages. Biden added that the U.S. and Canada, two major grain exporters, discussed how the two countries could send more grain abroad to help fill supply gaps.

But as U.S. officials are working to alleviate shortages, they’re running into other challenges: namely that global wheat reserves, including in the U.S., are running lower than normal after record drought last year. Governments with grain surpluses have been reluctant to release too much of their supply, including Canada.

The higher demand for wheat, corn and other food supplies are also hitting at a time when farmers across the world are under immense financial pressure from high costs for fuel, fertilizer, seed and other agricultural inputs.



Cecilia Rouse, chair of the Council of Economic Advisers, speaks during a press briefing at the White House, Monday, March 28, 2022, in Washington. (Patrick Semansky/AP Photo.)

³<https://www.foreign.senate.gov/download/04-05-22-rm-and-risch-letter-to-president-biden-re-ukraine-global-food>.

In the U.S., Cecilia Rouse, chair of Biden’s Council of Economic Advisers, indicated to reporters last week that the White House expected U.S. farmers to increase production in order to benefit from higher commodity prices, which shot up after Russia invaded Ukraine.

“With the price of food rising, they will be responding by making additional plantings and trying to take advantage of the increased price signals,” Rouse said. “So the market will work as the market will work.”

Rouse added that the U.S. Government, including USAID, was working with partners and other international organizations “to get the food and ease the price pressures” for countries in need.

But U.S. farmers, who generally make plans and order supplies in the winter for the spring planting season, are already in the fields in some states. The Agriculture Department released a report just days after Rouse’s remarks indicating U.S. farmers planned to plant roughly the same number of acres as the year before, but with less corn—adding to concerns about grain reserves.

G.T. Thompson of Pennsylvania, the top Republican on the House Agriculture Committee, said it was “completely naive” of the White House to say that farmers would be able to ramp up production amid high fuel and other production costs.

“We’re not talking about just producing what we’ve always done,” Thompson said. “With the hunger, and the starvation, and the death that’s going to occur, we would need to give [U.S. farmers] the tools to increase their yield.”

Thompson, other Republican lawmakers and some farm groups say they want Vilsack to allow farmers to plant crops on land currently in Federal conservation programs in an effort to meet the global demand. Vilsack recently rejected the request, arguing the impact of such a move would be limited since a “considerable proportion” of the land is in regions suffering drought. The land is also, by design, often located in hard to reach places to help mitigate soil erosion and capture carbon. Environmental groups have been *pressing Vilsack to seek alternatives*.⁴

With the price of food rising, they will be responding by making additional plantings and trying to take advantage of the increased price signals. So the market will work as the market will work.

CECILIA ROUSE.

If the U.S. fails to respond to the food crisis abroad, some lawmakers worry China or other rival countries could use their grain reserves to gain additional political influence across Africa and Asia.

“They are predators. They are extorters,” Sen. *Kevin Cramer* (R-N.D.) said of China, noting Beijing’s previous efforts to use commodities and their own assets as a sort of “predatory lending” tool.

China isn’t likely to be in a position to export significant amounts of grain anytime soon, according to economists tracking the situation. But it’s possible Russia could try to fill a small segment of the food supply gaps left behind by Ukraine. U.S. officials worry that Russia’s recent threat to export its agricultural products only to “friendly” nations will lead some vulnerable countries to remain silent about the Russian invasion.

“This is why we—as a peace loving, freedom loving, generous nation—cannot abandon our post in these fragile areas,” said Cramer, adding he would be inclined to support a stand-alone funding bill. “The leadership voids will be met by others that will exploit it for much less noble purposes.”

For now, Cramer is in the minority of his GOP colleagues, many of whom note the U.S. is already a top provider of global food aid and that the Administration still has money it can spend from current aid programs—including Cramer’s own home-state colleague, *John Hoeven*.

Hoeven, asked if the U.S. should increase funding for programs that purchase and send U.S. commodities abroad, replied, “We should use the existing programs.”

SUBMITTED REPORT BY HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

 Economic Research Service
U.S. DEPARTMENT OF AGRICULTURE

⁴<https://www.iatp.org/sites/default/files/202>

International Food Security Assessment, 2021–31

Economic Research Service

GFA–32

July 2021



[Cover image, showing Indian farm worker cutting sugarcane using machete on the field.]

Cover photo image from Getty Images.

www.ers.usda.gov

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Abstract

This report presents results from the United States Department of Agriculture (USDA), Economic Research Service's (ERS) International Food Security Assessment (IFSA) analysis, which uses a demand-driven framework that evaluates consumer responsiveness to changes in prices and incomes for 76 low- and middle-income countries. Reflecting 2021's anticipated lower income levels, despite anticipated growth for most countries, the number of food-insecure people is estimated at 1.2 billion, almost 291 million higher than in 2020. A sharp increase in global food insecurity was experienced in 2020, as compared to 2019, due to the COVID-19 pandemic. Most of the additional food-insecure people in 2021 are located in the Central and South Asia (64.1 percent or 186.8 million) sub-region—including India, which drives food security trends in the Asia region. While the Sub-Saharan Africa region is projected to account for 20.6 percent (60 million) of the additional food-insecure population. The remaining additional 15.3 percent (44.7 million) food-insecure people in 2021 are located in other Asian sub-regions, Latin America and the Caribbean, and North Africa. The prevalence of food insecurity in 2021 for the countries in the assessment is estimated at 30.8 percent of the overall population in the countries, an increase of 6.8 percentage points relative to the 2020 estimate. In 2031, the number of food-insecure people is projected to decline from the 2021 estimate by 47.4 percent (637.7 million people), which is 14.0 percent of the projected population of the countries included in this assessment. Given the evolving nature of the impacts from the COVID-19 pandemic and the long-term effects on individual country economies, the estimation results presented in this report contain a high degree of uncertainty. It is important to note the projections do not consider the impacts of unknown future events—such as climate change, armed conflict, and political and economic instability.

Keywords: Calories, Coronavirus, COVID-19, food demand, food insecurity, food prices, food security, income, nutritional target, pandemic, Asia, Latin America and the Caribbean, North Africa, Sub-Saharan Africa, U.S. Department of Agriculture, USDA, Economic Research Service, ERS.

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Preface

This report continues the series of Global Food Assessments (GFA) in developing countries that begun in the late 1970s by USDA's Economic Research Service (ERS). In 1993, the title of the series was changed to Food Aid Needs Assessment (FANA) to reflect the reports' contents more accurately, which assess selected developing countries with recent or ongoing food deficits. However, not all countries experiencing significant food deficits are included due to lack of data on key metrics such as average caloric consumption, prices, or macroeconomic figures. In 1997, ERS widened the analysis beyond the assessment of aggregate food availability to include more dimensions of food security and the title was revised again to Food Security Assessment (FSA). Starting with the report published in July 2011, ERS changed

the name to International Food Security Assessment (IFSA) to clarify the geographic scope of the analysis.

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Errata:

 On August 3, 2021, the abstract and introduction section was updated to correct typographical errors. No other components of the report were affected by the error.

 On August 11, 2021, the abstract and introduction sections were updated to correct errors. No other components of the report were affected by the errors.

A report summary from the Economic Research Service

What Is the issue?

Millions of people around the world are food-insecure and do not consume sufficient calories to sustain an active and healthy life. What factors affect the present and future prevalence of international food security? Agricultural production and market conditions affect the supply of food available in a given country. And, income, food prices, and economic inequality are major factors determining the ability of people to access food. Widespread food availability, rising income, and low food prices improve a country's food security by increasing access, although the extent of these gains are dependent on the distribution of income within countries. On the other hand, adverse income, prices, or food supply shocks can increase food insecurity, as these factors collectively impact low- and middle-income consumers' access to food. Measuring the shifts in consumer demand in response to these factors can help measure progress in food security. Even if demand may be fully met, a person could remain food-insecure—as they might not be able to purchase enough calories to sustain an active and healthy life for their level of income. This report uses a demand-driven model that integrates income, price, and food supply shocks to assess current-year levels of food security and projected changes over the next decade for 76 low- and middle-income countries in Sub-Saharan Africa, North Africa, Latin

America, the Caribbean, and Asia. The report helps USDA and its stakeholders estimate medium-term projections of food security in the selected countries. The 2021 report also analyzes the combined impact of lower incomes and price shocks associated with the lingering effects of the Coronavirus (COVID-19) pandemic on present and future food security.

What did the study find?

The report's results reflect the country and global level estimates of economic shocks from the COVID-19 pandemic at the time of estimation. The results are based on macroeconomic trends up to August 2020, consumption and production data up to January 2021, and price trends from January 2018 to December 2020. The report's projections do not consider the impacts of certain types of possible unknown events in the future, such as climate change, armed conflict, and political and economic instability.

The main findings for the 76 countries covered by this report are:

- Despite the anticipated overall rebound in per capita gross domestic product (GDP) growth in 2021, income is projected to remain below pre-pandemic levels for most countries in the assessment. This projected lower per capita GDP level in 2021 is the main underlying factor for the continued decline in food security.
- Due to the persistent effects of COVID-19 on income levels, the number of food-insecure people in 2021 is estimated at 1.2 billion, an increase of almost 32 percent (291 million people) from the 2020 estimate. This suggests 30.8 percent of the estimated population of the 76 countries is unable to consume 2,100 kilocalories (kcal) a day, an average caloric level necessary to sustain a healthy and active lifestyle.
- Most of the additional 291 million people estimated to be food-insecure are in Asia (72 percent of the total)—particularly in Bangladesh, India, Pakistan, and Indonesia—and in Sub-Saharan Africa (21 percent of the total).
- Despite the COVID-19-induced income shocks, food security is projected to improve in all 76 countries over the next 10 years. By 2031, the share of the population that is food-insecure in the 76 countries studied is projected to fall to 14 percent (637.7 million people), a 47.4 percent drop in the number of food-insecure people from 2021.
- The anticipated improvement in food security over the coming decade is driven by a projected steady income growth, relatively stable prices for major grains, and lower population growth, particularly in Asia, Latin America, and the Caribbean.

How was the study conducted?

The USDA, Economic Research Service (ERS) demand-oriented International Food Security Assessment (IFSA) model (described in the appendix) projects food demand and food gaps in 76 low- and middle-income countries through 2031. Food security is evaluated for each country by estimating the share of the population unable to reach a caloric target of 2,100 kilocalories per person per day. The intensity of food insecurity is measured by determining the gap between projected food demand for those falling below the threshold and the caloric target. Food demand is expressed in grain equivalents, based on caloric content to allow aggregation across four separate food groups: the major grain consumed in the country, other grains, roots and tubers, and all other food. Average per capita food consumption data are from the United Nations' Food and Agriculture Organization (FAO) Food Balance Sheets and FAO's Global Information Early Warning System's (GIEWS) Country Cereal Balance Sheet. Observed domestic prices are from FAO-GIEWS Food Price Monitoring and Analysis Tool. Tariff data are from the World Bank's World Integrated Trade Solution (WITS). Incomes, exchange rates, and Consumer Price Indexes (CPI) are from the ERS International Macroeconomic Dataset. World prices are from USDA's Agricultural Projections to 2030.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

Introduction

The U.S. Department of Agriculture's Economic Research Service's (ERS) International Food Security Assessment (IFSA) analysis¹ estimates per capita food de-

¹The results from the IFSA model are not directly comparable with other analyses such as FAO's modeling work for its report on the State of Food Insecurity (SOFI), which has a broader

mand and compares the estimations against a global nutritional target of 2,100 kilocalories² (kcal) per person per day. The nutritional target, set by the United Nations,³ is an average Calorie level necessary to sustain a healthy and active lifestyle. The aim of the IFSA is to help USDA and its stakeholders estimate long-term projections of food insecurity in 76 low- and middle-income countries using income projections from ERS's International Macroeconomic Data Set, international and domestic food prices over the medium term,⁴ and international food insecurity projections through 2031.

The current report incorporates current assumptions for key macroeconomic variables (*e.g.*, income growth, inflation, and exchange rates) and population, reflecting the economic consequences of the global COVID-19 pandemic. The economies of the countries included in the assessment sharply contracted in 2020 due to the widespread pandemic, resulting lockdowns, and other control measures impacting business activity,⁵ employment, and incomes. Although growth is projected to return to positive rates in 2021, real Gross Domestic Product (GDP) levels are anticipated to remain below levels seen before the global pandemic in 2021 and in years to follow.⁶ The medium- to long-term path to economic recovery cannot be known with certainty, and the pace of economic recovery will vary across countries. Therefore, the report's results assume that the macro-economic trends—determined using the 2018–2020 period as a baseline—will not significantly vary from the anticipated trend over the 10 year projection period. In addition, this report's projections do not consider the impacts of possible unknown events in the future. These events could include: catastrophic weather, armed conflict, political and economic instability, as well as the potential for protracted effects from the COVID-19 pandemic.

Reflecting the continued effects of the COVID-19 pandemic on economic growth, food insecurity in 2021 is anticipated to further decline from last year for the population in the 76 countries included in the IFSA. However, over the next decade, the food security status is projected to improve for most countries covered by the assessment. Principal findings for the countries covered by this report are:

- GDP per capita growth is anticipated to rebound in 2021. However, income is projected to remain mostly below levels achieved during the pre-pandemic period of 2017–2019. Moreover in 2021, GDP per capita is projected to be lower than in 2020 in 23 countries covered by the assessment—including India and Indonesia—which account for 40.8 percent of the population covered in the assessment. The projection for lower GDP per capita levels is the main underlying factor for the continued decline in food security in 2021.
- For the 76 countries included in IFSA, the prevalence of food insecurity in 2021 is estimated at 30.8 percent—or 6.8 percentage points higher than the estimate for 2020. The prevalence of food insecurity is estimated to be higher in 2021 than in 2020 in 56 of the 76 countries.
- The high prevalence of food insecurity in 2021 translates to more than 1.2 billion people potentially not having consistent access to the daily caloric target of 2,100 kcal.⁷ The number of food-insecure people in 2021 is estimated to be

country coverage and different methodology. Because the IFSA also uses aggregate data, IFSA cannot be compared directly with evaluations using household-level surveys. It is also difficult to extrapolate our results to Food Security Information Network's (FSIN) report on global crises, which uses the five-phase food insecurity measure—a consensus approach across international organizations and development practitioners directly responding to major crises. For a more in-depth discussion and comparison of USDA's IFSA model with other modeling approaches, see Tandon, *et al.* (2017).

²A kilocalorie is the same as one Calorie. A kilocalorie is the amount of heat required to raise the temperature of one kilogram of water 1° Celsius.

³The 2,100 Kcal per capita per day threshold was an internationally agreed upon level set by United Nations as the recommended level of dietary energy intake for a healthy, well-nourished individual (FAO, 2004).

⁴Medium-term price projections are taken from USDA Agricultural Projections to 2030, long-term projections report OCE-2021-1. These projections are then used to project medium-term domestic price trends, using data from the Global Information and Early Warning System (GIEWS) of the United Nations Food and Agriculture Organization.

⁵Some of the control measures that impacted business included, but not limited to, curfews, closures of large venues, restrictions on operations of hotels and restaurants, closures of borders.

⁶See the macroeconomics assumptions box at the end of this section for more details.

⁷The caloric target considered in the assessment is an average across men and women, age groups, regions, and activity levels.

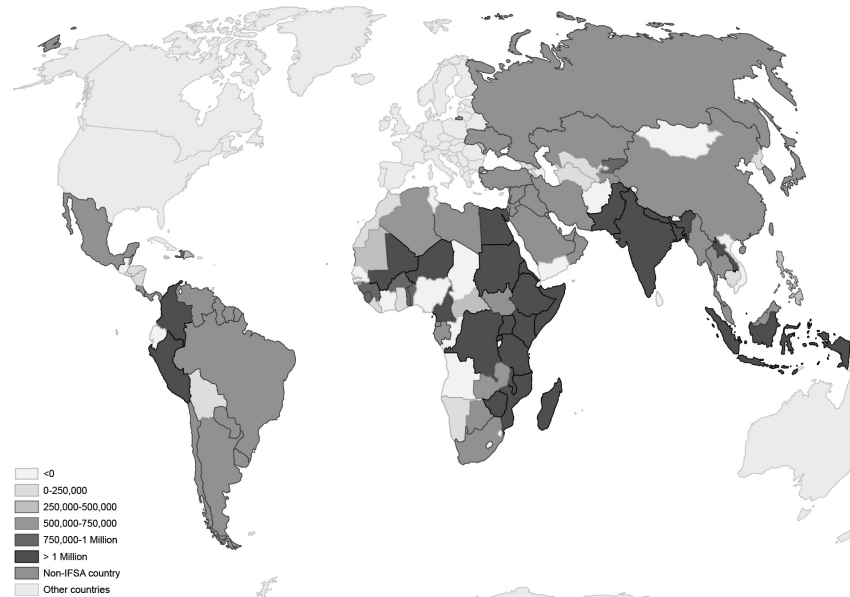
almost 291 million higher⁸ than the 2020⁹ estimate, an increase of 32.0 percent (figure 1).

- Central and South Asia sub-region (186.8 million people)—and in particular India—and Sub-Saharan Africa (60 million people) are estimated to account for almost 85 percent of the additional 291 million people estimated to be food-insecure in 2021.

Figure 1

In 2021, as the impacts of the COVID-19 pandemic on income levels linger, the number of food-insecure people increases for some countries

Change in number of food-insecure population



Notes: COVID-19 = Coronavirus disease of 2019; IFSA = International Food Security Assessment.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

- By 2031, the share of the population that is food-insecure in the 76 countries studied is projected to fall to 14.1 percent, a 54.4 percent drop from its 2021 estimate. The number of people considered food-insecure is projected to decline by 47.4 percent from 2021 to 637.7 million people.
- The food gap—defined as the amount of food needed for all food-insecure to reach the caloric target of 2,100 kcal/day—indicates the intensity of food insecurity. The gap can be expressed in calories per capita per day or in grain-equivalent quantities. In addition, the food gap is used to measure the annual national food shortfall. For the 76 countries examined—on average—the daily caloric food gap is projected to decline by 19 percent, from 380 kcal (18.1 percent of the caloric target) in 2021 to 308 kcal (14.7 percent of the caloric target) in 2031.

⁸The United Nations Office for the Coordination of Humanitarian Affairs (2021), estimates a similar trend to the assessment and anticipate that acute food insecurity in 2021 will increase by 235 million people. For more details see: United Nations Office for the Coordination of Humanitarian Affairs (OCHA), 2021. Global Humanitarian Overview 2021. Geneva, Switzerland.

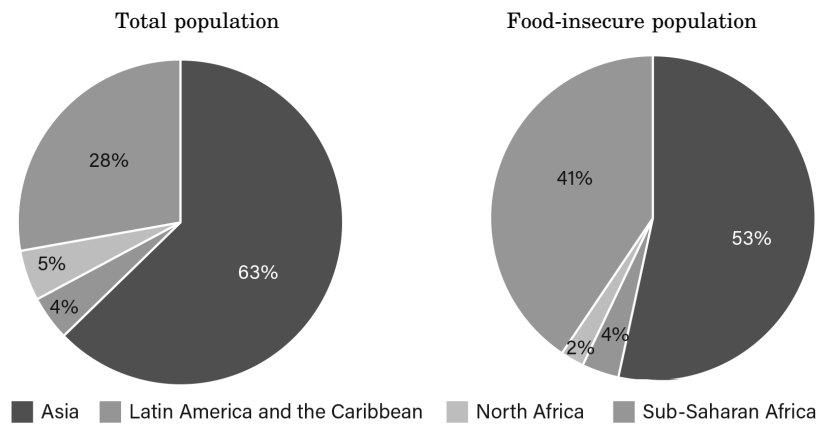
⁹For more on the ERS results of the impact of COVID-19 on food insecurity in 2020 see: Baquedano, F., Zereyesus, Y.A., Christensen, C., and Valdes, C., 2021. COVID-19 Working Paper: *International Food Security Assessment, 2020-2030: COVID-19 Update and Impacts on Food Insecurity*. COVID-19 Working Paper #AP-087, January 2021. U.S. Department of Agriculture, Economic Research Service.

Country coverage and observed food security trends

The 76 countries in this study are sub-divided across 4 major regions: 39 countries and 4 sub-regions in Sub-Saharan Africa (SSA), 22 countries and 4 sub-regions in Asia, 11 countries and 2 sub-regions in Latin America and the Caribbean (LAC), and 4 countries in North Africa (NAF). Estimated levels of food insecurity for 2021 vary greatly across these regions. Asia (647 million people) and SSA (491 million people) account for 94 percent of the total number of food-insecure people in 2021 (*figure 2*). However, in 2021, SSA has the highest share of the population that is food-insecure of any region at 44.9 percent (*figure 3a*). By contrast, 26.2 percent of the population in Asia is considered food-insecure in 2021—with the prevalence of food insecurity being the highest in Mongolia, North Korea, and Yemen—averaging 72 percent across the 3 countries. The LAC region (with 44.7 million people) and NAF region (with 28.6 million people) account for the remaining 6 percent of food-insecure people identified in the 2021 assessment (*figures 2 and 3b*). The prevalence of food insecurity in the LAC region averaged almost 26 percent in 2021—whereas in the NAF region, the same metric averaged 14.5 percent—making the latter region the most food-secure in the study sample (*figure 3a*).

Figure 2

Asia accounts for 63.0 percent of the population of the 76 countries studied and 53.0 percent of the food-insecure people in 2021



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Despite the projected lower income levels in 2021 (resulting from the COVID-19 pandemic), food security is projected to improve across all 76 countries over the next 10 years as GDP growth continues to recover. The share of the population that is food-insecure is projected to fall to 14.0 percent (637.7 million people) by 2031, a 54.6 percent drop from the 2021 share of the food-insecure population (*figures 3a and 3b*). By 2031, food security in Asia is projected to improve the most of all regions. The prevalence of food insecurity (6.4 percent of the population) and the number of food-insecure people (175.7 million) are projected to decline by 72.9 percent and 75.4 percent, respectively, over 10 years. This projected improvement mainly reflects an estimated strong economic recovery from the COVID-19-induced recessions after 2021 for most of the region, particularly in India. By contrast, over the next decade, SSA is anticipated to make the least progress at improving its food security metrics. While robust economic growth is projected after 2021 for SSA, population growth¹⁰ is anticipated to outpace income growth over the coming 10 year period. The higher growth in population over income will likely result in lower real purchasing power of the average person in SSA. As a result, the decline in the prevalence of food insecurity in SSA is projected to be moderate. By 2031, in SSA the prevalence of food insecurity is projected to be 29.7 percent— $\frac{1}{3}$ lower than in 2021 (*figure 3a*). Despite the moderate decline in the prevalence of food insecurity by

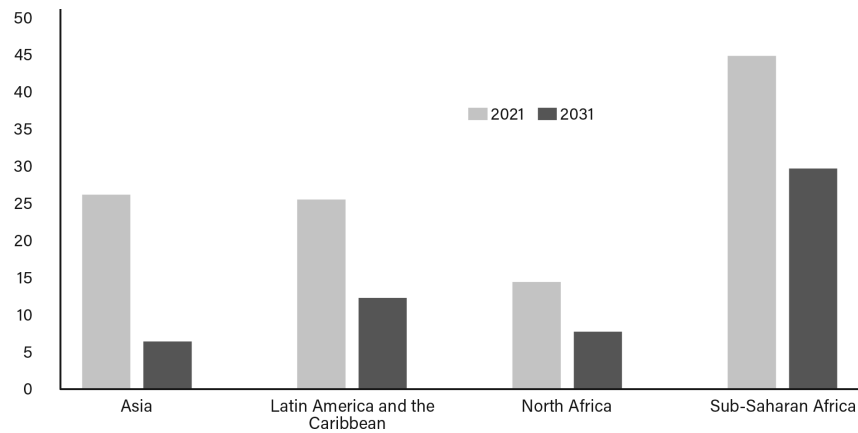
¹⁰Population growth projections for Sub-Saharan Africa, and all regions in the assessment, are obtained from the International Data Base (IDB) of the U.S. Department of Commerce, Bureau of the Census.

2031, SSA is projected to reduce the number of food-insecure people by 71 million from 2021 (figure 3a). In LAC, the prevalence of food insecurity is projected to decline by more than half to 12.3 percent, and the number of food-insecure people will decline by almost half to 23.5 million by 2031. In NAF, food security is projected to improve over the next 10 years, with the prevalence of food insecurity falling below 8.0 percent and the number of food-insecure people falling to less than 18 million in 2031 (figures 3a and 3b).

Figure 3a

By 2031, the percent of people food-insecure is projected to decrease the most in the Asia region^[1]

Percent food-insecure

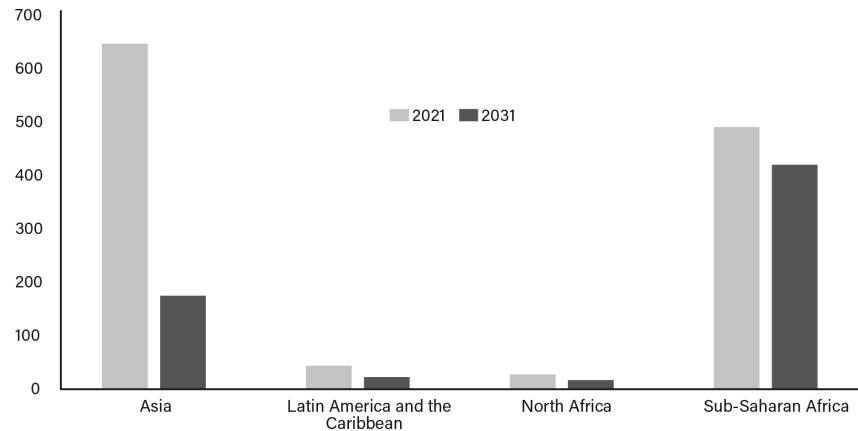


Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Figure 3b

The number of food-insecure people by 2031 is projected to sharply decline for most IFSA regions,^[1] as Asia is projected to make the most progress

Number of food-insecure people, millions



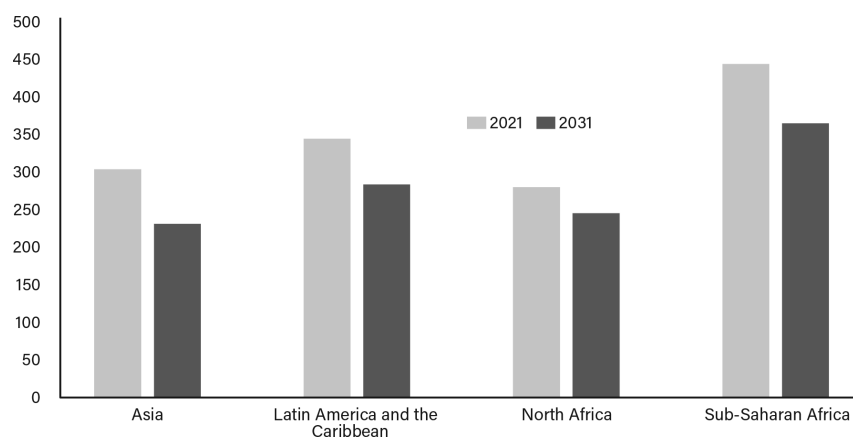
Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

^[1]Regions only include countries that are a focus of the International Food Security Assessment.

Figure 3c

Food gap projected to decline by 2031 in IFSA regions^[2]

Africa Per capita Kcal/day



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Gross Domestic Product and international food price trends

The macroeconomic assumptions underlying the 2021–2031 IFSA reflect the economic impact from the global spread of the COVID–19 pandemic, that began during the last quarter of 2019. Nearly all 76 IFSA countries were affected by decreased economic growth in 2020. Although, growth is projected to return to positive rates in 2021 for most IFSA countries, real per capita Gross Domestic Product (GDP) is expected to remain below levels seen before the global pandemic in 2021 and in years to follow. GDP per capita in 2021 is estimated to sharply increase¹¹ from 2020 in Asia and estimated to moderately improve in LAC (*table 1*). By contrast, in NAF, GDP per capita is estimated to decline from 2020. GDP is projected to remain relatively unchanged in SSA for 2021. For all regions, however, GDP per capita in 2021 remains below its pre-pandemic level of 2019 (*table 1*). Between 2021 and 2031, strong to moderate annual growth in GDP per capita is projected for Asia and LAC. Conversely, between 2021 and 2031, NAF and SSA are anticipated to have moderate income growth. By 2031, SSA is projected to lag the other IFSA regions in terms of GDP per capita, as GDP growth is outpaced by population growth.

Table 1

Inflation-adjusted per capita Gross Domestic Product (GDP) in IFSA regions, 2021 and 2031

	2019 (pre-COVID–19)	2021	2031	Change 2021/2020	Per capita GDP: Annual growth rate (2021–31)
	U.S. Dollars			Percent	
Asia	2,279	2,221	3,400	3.7	4.3
Latin America and Caribbean	5,395	4,936	6,222	1.8	2.3
North Africa	3,864	3,537	4,240	–4.6	1.8

^[2] Regions only include countries that are a focus of the International Food Security Assessment. A kilocalorie is the same as one Calorie (uppercase C). A kilocalorie is the amount of heat required to raise the temperature of one kilogram of water 1° Celsius.

¹¹ Macroeconomic projections come from the USDA, ERS International Macroeconomic Data Set, which uses data from the World Bank Development Indicators, International Monetary Fund's International Financial Statistics, IHS Global Insight, and Oxford Economic Forecasting, as well as estimated and projected values developed by USDA, ERS. *Appendix III* provides the country, subregional, and regional macroeconomic projections that are used to model food insecurity in this year's assessment.

Table 1—Continued

Inflation-adjusted per capita Gross Domestic Product (GDP) in IFSA regions, 2021 and 2031

	2019 (pre- COVID-19)	2021	2031	Change 2021/2020	Per capita GDP: Annual growth rate (2021-31)
	U.S. Dollars			Percent	
North Africa	3,864	3,537	4,240	-4.6	1.8
Sub-Saharan Africa	1,378	1,311	1,505	0.7	1.4

Notes: Value in 2015 U.S. dollars to adjust for inflation. Regions only include countries that are a focus of the International Food Security Assessment.

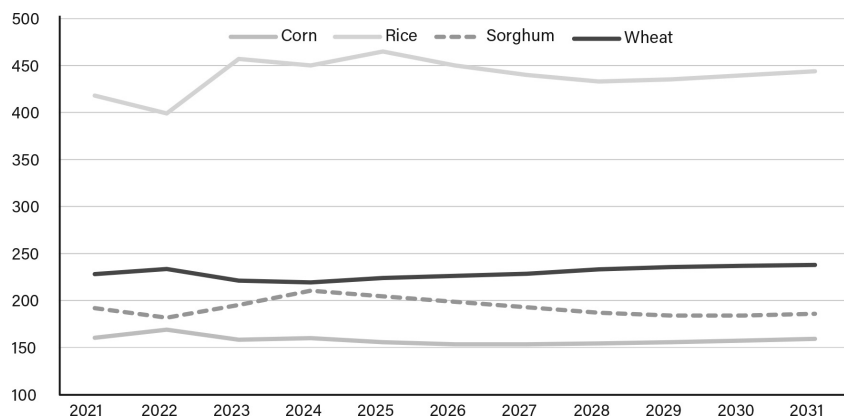
Source: USDA, Economic Research Service based on results from the USDA, ERS International Macroeconomic Data Set.

International food commodity prices are expected to remain relatively stable in inflation-adjusted terms over the coming decade¹² (*figure 4*). The price for sorghum is the only commodity price projected to decline over the coming 10 year period. In contrast, the projected prices for rice from 2021 to 2026 are anticipated to increase before stabilizing towards the end of the 10 year period. The relative price stability mainly reflects ample food supplies in world markets that will outweigh global demand (USDA, OCE, 2021). In some markets, world and domestic food prices are integrated through trade. In other cases, barriers to trade can cause domestic prices to move independently of world prices. Twenty-six of the 76 countries¹³ covered in IFSA are projected to have rising real domestic prices of their major grain between 2021 and 2031. Fifteen of these countries are in SSA.

Figure 4

Inflation-adjusted international prices of major grains, 2021–31

2015 U.S. dollars/ton



Note: Value in 2015 U.S. dollars to adjust for inflation.

Source: USDA Agricultural Projections to 2030, Long-term Projections report OCE-2021-1.

Grain demand, production trends, and the Implied Additional Supply Required (IASR)

In 2021, total grain demand for IFSA countries is estimated at 1 billion tons. The demand for grains is projected to grow to 1.3 billion tons by 2031 (*table 2*). Food demand is the largest component of total grain demand. Asia accounts for most of

¹²Price projections come from USDA's long-term agricultural projections to 2030, (USDA, OCE, 2021) and are converted to prices in 2015 to adjust for inflation.

¹³The full set of projections at the country, subregional, and regional level of anticipated price changes of their major grain are presented in *Appendix III*.

the food demand in 2021, as Asia has the largest share of the population of the 4 major regions defined in IFSA. From 2021 to 2031, grain demand is projected to increase by 2.7 percent per year across all 76 countries. Demand for grains is expected to increase the most in SSA (3.5 percent per year) and Asia (2.5 percent per year). Food demand is also projected to grow faster than grain demand for other uses (including feed) over the 10 year period. Across the 76 countries in the study, food demand is projected to grow at an annual rate of 2.8 percent over the coming decade. Grain demand for other uses is projected to grow at a pace of 2.5 percent per year from 2021 to 2031. But at the regional level, the SSA region's demand for food (3.8 percent per year) is projected to grow faster than demand for other grains (3.2 percent per year). However, in LAC and NAF, demand for grains for other uses are projected to grow faster on an annual basis than food demand between 2021 and 2031. In Asia, demand for food and grains for other uses is projected to grow evenly year-to-year over the next decade.

From 2021 to 2031, grain production is expected to increase by 2.5 percent per year (*table 2*). This projected increase is slightly below the growth rate for total grain demand and the demand for food grains. The annual rate of growth for grain demand for other uses is on par with the growth in production. Over the decade, the LAC region is projected to see the highest annual growth-rate of grain production relative to all other IFSA regions. Moreover, the annual rate of growth of grain production in LAC is projected to surpass both the rate of annual growth for food grains and grains for other uses. By contrast Asia is projected to see the lowest rate of growth in grain production (2 percent a year) of any region. Asia's anticipated annual grain-production growth will fall below the growth of demand for grains for food and other uses (*table 2*). The NAF region's grain production is projected to grow 2.5 percent year, a rate that is almost 10 percent higher than the rate of growth for total grain demand and grain demand for other uses. The SSA region is projected to see grain production grow 3.6 percent a year from 2021 to 2031, mostly on par with the growth-rate of demand for grains for food and other uses.

Despite the projected robust growth in production—in absolute terms—the gap between domestic grain production and demand for grain is anticipated to widen for the 76 countries in the assessment over the coming decade (*table 2*). The Implied Additional Supply Required (IASR)—which provides an estimate of the gap between demand and supply for grains—is projected to increase by 3.3 percent per year between 2021 and 2031. Through the upcoming decade, IASR will annually grow the fastest in the Asia (4.9 percent) and Sub-Saharan Africa (3.4 percent) regions. By 2031, these same two regions are also projected to have the highest IASR of any other regions included in IFSA.

Table 2

Demand for grains is projected to outpace grain production over the 2021–2031 period, driven mainly by demand from Asia and Sub-Saharan Africa regions

Region	Food demand		Other demand*		Total grain demand		Grain production		Implied additional supply required**	2021	2031
	2021	2031	2021	2031	2021	2031	2021	2031			
	millions of tons										
Total IFSA Countries	695	911	332	424	1,027	1,336	770	982	257	354	
Asia	481	618	163	209	644	827	547	669	98	158	
Latin America and the Caribbean	24	29	22	29	46	58	20	29	26	29	
North Africa	48	60	44	55	92	115	36	46	56	69	
Sub-Saharan Africa	141	204	97	133	239	337	167	238	71	99	

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

How food security is assessed: Method and definitions (for more detailed information on the model, see *Appendix I*)

Food demand is projected for 76 low- and middle-income countries—39 in Sub-Saharan Africa, 4 in North Africa, 11 in Latin America and the Caribbean, and 22 in Asia. Food is divided into four groups: (1) the major grain consumed in the country, (2) other grains, (3) root crops, and (4) all other food. The IFSA model's projections of food demand are expressed in grain equivalent, based on the caloric content of food items to allow for aggregation across food groups; this grain equivalent may be expressed in either kilograms or kilocalories. For example, grains have roughly 3.5 Kcal per gram, and tubers have about 1 calorie per gram. One ton of tubers is therefore equivalent to 0.29 tons of grain.

The IFSA model analyzes the gap between projected food demand, which is a function of per capita income and food prices, and a nutritional target of 2,100 Kcal per capita per day. This report uses three indicators of food insecurity. The *food gap* measures the food needed to raise consumption at every income level to the nutritional target. In many countries, per capita consumption in the lower income deciles is significantly less than per capita consumption for the country. In these countries, the distribution gap provides a measure of the intensity of hunger—the extent to which the food security of already hungry people deteriorates as a result of income declines or other negative economic conditions. This measure can be expressed on a per capita basis (in Kcal per day), or as an aggregate measure (the total tons of food needed to fill the gap in each country).

The second indicator is the **share of the population that is food-insecure**. Food demand is assumed to be met and equal to consumption. We no longer assess consumption by income decile, but instead in a continuous manner across all income levels.

Finally, the number of food-insecure people—those who cannot meet the nutritional target—is based on total population and the population share that consumes less than the nutritional target. Terms commonly used in this report include:

Food consumption—equal to food demand if we assume that the demand is met.

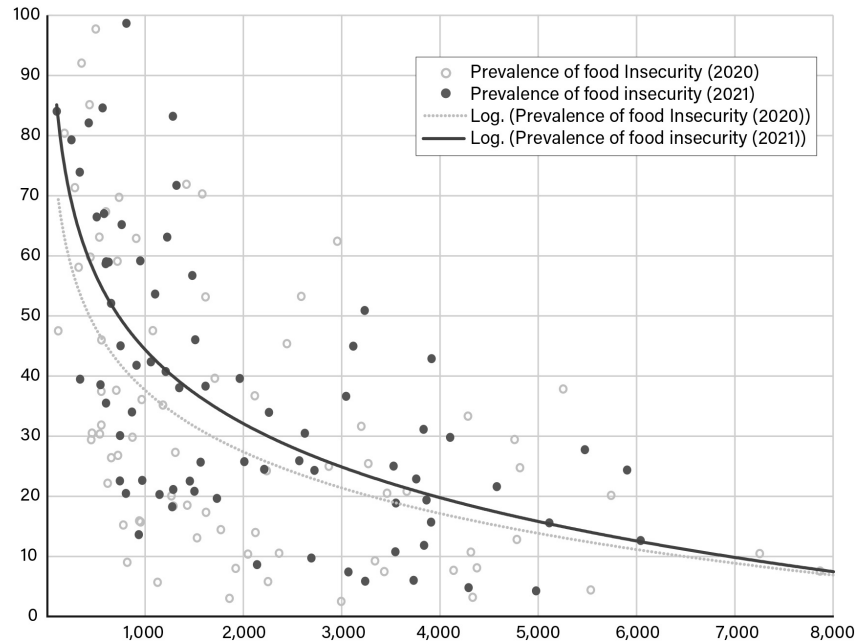
Food access—depends on a consumer's purchasing power. Food access is estimated based on income level and food prices within each country according to an income-consumption relationship.

Food insecurity—occurs when estimated per capita food consumption for a consumer at a certain income level falls short of the nutritional target of 2,100 Kcal per person per day.

In 2021 the continued impacts on income from the COVID-19 pandemic are anticipated to increase food insecurity at a higher rate in low-income countries

The Prevalence of Food Insecurity (PFI) for 2021 across the 76 countries included in the assessment is estimated at 30.8 percent, 6.8 percentage points higher than the 2020 estimate. The distributions of the PFI relative to GDP per capita for the 2021 and 2020 estimates is shown in the graph below. The 2021 and 2020 trend lines are indicated by the solid and broken lines, respectively. Two points are clear, based on the information contained in the graph. First, the PFI has on average increased in 2021 for all income levels relative to 2020. Second, the combined effect of the per capita income and price shocks due to the pandemic is not uniform across the countries in the assessment. More specifically, the increase in food insecurity is more prevalent in low-income countries compared to high-income countries. The trends for 2020 and 2021 reveal that the gap between the two trendlines for high-income countries is significantly smaller, relative to low-income countries.

Percent food-insecure
Per capita Gross Domestic Product (2015 Dollars)



Note: A linear-logarithmic (Log.) regression curve is fitted to show the relationship between the estimated GDP per capita and prevalence of food insecurity.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Macroeconomic assumptions for the International Food Security Assessment, 2021–2031

The macroeconomic assumptions underlying the 2021–2031 International Food Security Assessment (IFSA) reflect the economic consequences from the global spread of the COVID–19 pandemic, that began in 2019. Nearly all 76 IFSA countries were affected by decreased economic growth in 2020. Although, growth is projected to return to positive rates in 2021, real gross domestic product (GDP) is expected to remain below levels seen before the global pandemic in 2021 and in years to follow.

The macroeconomic assumptions are taken from multiple forecast services, U.S. Government projections, international agency projections, and ERS regional and country experts. The projections assume no policy changes and no additional shocks (*e.g.*, political crises, conflicts, disease outbreaks, weather events). The macroeconomic projections were completed in August 2020 and were based on expectations at that time.

Worsening fiscal and external accounts brought on by the pandemic have impacted government and private consumption, resulting in weaker economic growth. Pandemic-related restrictions have exacerbated unemployment, food supply shortages, and increased inflation. Most countries are showing real depreciation against the U.S. dollar (in the near term) but weak agricultural sectors, market, and port lockdowns restrict exports in the longer term. In addition, the collapse in global oil demand has reduced oil production and revenue for oil-dependent IFSA countries. Continued uncertainty in a few IFSA countries in 2021 could generate future economic recessions.

The economic projections suggest the recovery will be gradual and uneven, with economic growth across all 76 countries projected at 2.3 percent over the 2021–31 period. On a regional basis, Asian countries are projected to average 3 percent per capita income growth annually during the 2021–31 period, fol-

lowed by Latin American and Caribbean (LAC) countries at 2.3 percent. In North Africa, per capita income is projected to grow at an average rate of 2.2 percent, whereas in Sub-Saharan Africa per capita income growth is projected to average 1.7 percent per year. Despite the slower economic growth, the share of global real GDP by IFSA countries is projected to increase from 12 percent to 14 percent between 2021 and 2031.

Asia is projected to have the most rapid long-term growth than any other IFSA region. Based on continued investment in infrastructure, India is expected to recover after 2021. Economic recovery in Georgia is less encouraging due to the weakened outlook for export demand, whereas in Kyrgyzstan's and Turkmenistan' loss of labor remittance inflows impacts GDP growth.

In contrast, in LAC, North Africa, and Sub-Saharan Africa growth rates are projected to remain below what is needed to restore 2020 pandemic losses. In Sub-Saharan Africa, lower external donor support and internal trade are factors behind the GDP contraction and Congo and Sudan (oil-dependent economies) are adversely impacted by decreasing global oil prices. Landlocked Mali's economy is severely hit by being denied access to ports in neighboring countries.

The LAC region was severely affected by the COVID-19 pandemic, on account of strict lockdowns and limited government support to counter reduced incomes. Both Bolivia and Colombia face a challenging recovery, given the slowdown in the hydrocarbons sector. Slow recovery reflects the halt in tourism in Jamaica. In El Salvador, Guatemala, Honduras, and Nicaragua the drop in family remittances reduced private-sector domestic consumption. Within the LAC region, the major exception is Peru where projections indicate a modestly fast recovery in the near term based on export revenues.

Regional Overview

The food security indicators and model projections presented here (for 2021 to 2031) are based on historical macroeconomic data and projections from the ERS International Macroeconomic data set. The macroeconomic assumptions underlying the 2021-2031 IFSA reflect the economic consequences of the COVID-19 pandemic throughout the world. All 76 countries were affected by significantly lower economic growth in 2020, but growth is projected to return to positive rates in 2021. However, real GDP growth is expected to remain below pre-pandemic levels in nearly all countries covered by the assessment in 2021 and in years to follow. The production and consumption data are from January 2021. This means events since January 2021—including droughts, flooding, and any shocks to supply or demand—are not reflected in these data or the following analysis.

Changes in food security vary across regions. In Sub-Saharan Africa (SSA), food security is projected to slowly improve due to rapid population growth and relatively low per capita income growth. Nonetheless by 2031, SSA is anticipated to remain the most food-insecure region in the assessment, as SSA is projected to have the highest prevalence of food insecurity of any region. Reflecting the impact of the COVID-19 pandemic on the economies of Asia, the region is estimated to have the highest number of food-insecure people in IFSA for 2021. However, the estimated prevalence of food insecurity in Asia is only slightly more than half the same metric for SSA. By 2031, the 22 countries in Central Asia, East Asia, Other Asia and Southeast Asia included in this assessment—collectively referred to in this report as Asia—are projected to experience the fastest food security improvement, as the region's largest economies continue to benefit from rapid income growth. The 4 North African countries assessed are also projected to experience improvements in food security, though levels of food insecurity there are relatively low to begin with. In the 11 countries in the Latin America and the Caribbean (LAC) region—8 in Central America and the Caribbean and 3 in South America—the share of population experiencing food insecurity is projected to fall by more than half by 2031.

Sub-Saharan Africa

The population of Sub-Saharan Africa (SSA) in 2021—currently estimated at one billion—is projected to reach 1.4 billion by 2031. The anticipated increase in the region's population (2.6 percent a year) over the next decade makes it the fastest growing region in the assessment. Countries in SSA continue to face significant food security challenges. Since the outbreak of the COVID-19 pandemic—conflict, reduced agricultural output (due to weather events and pest infestations) and lower per-capita income—continue to generate high levels of severe food insecurity in SSA (Food and Agriculture Organization of the United Nations (FAO), 2020).

The COVID-19 pandemic has further aggravated food insecurity in the SSA region by limiting income generating activities and restricting access to agricultural inputs. In 2021, GDP in the SSA region is estimated to grow 3.4 percent to \$1.4

trillion USD, a 0.4 percent increase from its 2019 level (*table 3*). The anticipated slow economic recovery of the SSA region has a significant effect on the estimates of its food security metrics. For 2021, SSA is estimated to have the highest share (44.9 percent) of its population considered food-insecure among the 4 regions covered by the assessment (*table 4*). The SSA region has the second highest number of food-insecure people (491.5 million). The 2021 estimate of the number food-insecure people is 62 million higher than the 2020 estimate, highlighting the lingering effects of the COVID-19 pandemic on local economies (*figure 5*). However, the change in the number of food-insecure people in 2021, relative to 2020, varies across countries in SSA. Compared to the 2020 assessment, several countries are estimated to see an increase in the number of food-insecure people. For example, in Uganda, the Democratic Republic of the Congo, and Kenya, the number of food-insecure people is estimated to increase by more than 10 million in 2021 in each country compared to 2020. By contrast, countries—such as the Sudan, Nigeria, Angola, and Burundi—will experience a moderate reduction in their estimated food-insecure people in 2021, relative to 2020.

Table 3

Inflation adjusted per capita income for Sub-Saharan Africa region, 2021 and 2031

Region/subregion	2019 (pre- COVID-19)	2021	2031
	Dollars (2015 U.S.)		
Sub-Saharan Africa	1,378	1,311	1,505
Central Africa	666	630	710
East Africa	1,042	1,025	1,267
Southern Africa	1,462	1,367	1,479
West Africa	1,905	1,794	2,024

Source: USDA, Economic Research Service International Macroeconomic Dataset.

Figure 5

Sub-Saharan Africa: Change in the number of food-insecure people in 2021, from 2020

Change in the number of food-insecure population



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Despite the economic contraction from the COVID-19 pandemic, GDP per capita over the next decade is projected to annually grow by 1.4 percent in the SSA region (an improvement from -1.1 percent during the 2015-2020 period from \$1,311 in 2021 to \$1,505 in 2031 (table 3). By 2031, West Africa is projected to have the highest GDP per capita in SSA at \$2,024, surpassing the SSA regional average. However, despite the anticipated growth in SSA's GDP per capita over the next decade (both in absolute and relative terms), the region will still have the lowest estimated income of the four regions included in IFSA. Moreover, SSA is projected to have the highest population growth of any region, countering the impact of income gains on food security. As a result, by 2031, the SSA region is expected to make the least

progress in its food insecurity metrics (*table 4*). From 2021 to 2031, the share of food-insecure people is projected to decline from 44.9 percent to 29.7 percent (or by 420.8 million people). Driven by trends in Nigeria, the West African sub-region is projected to make the most gains in its food security metrics by 2031. However, the Central Africa sub-region is projected to make the least progress. Over the next decade, the share of the population that is food-insecure is projected to decline in Central Africa. However, because of an anticipated high population growth, there will be more food-insecure people in Central Africa in 2031 than in 2021 (*table 4*). Over the next decade, the daily caloric food gap—the difference between estimated consumption and the daily consumption target—is projected to decline by 17.8 percent from 444 kcal in 2021 to 365 kcal in 2031.

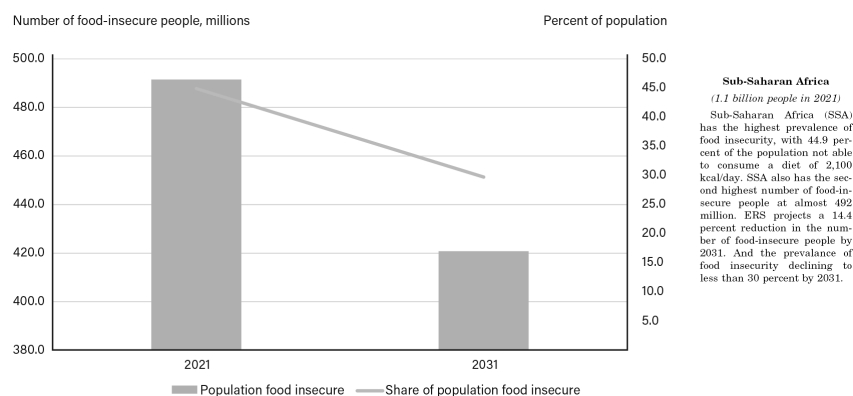
Table 4
Food security indicators for Sub-Saharan Africa, 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
	Million tons				
2021	141	97	239	167	71
2031	204	133	337	238	99

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Sub-Saharan Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Sub-Saharan Africa	1,094.7	1,415.6	491.5	420.8	44.9	29.7	444	365	31,158	25,653
Central Africa	145.1	194.5	99.9	114.2	68.8	58.7	538	437	9,633	10,084
East Africa	382.4	489.7	177.2	134.9	46.3	27.6	487	407	9,493	6,988
Southern Africa	152.6	199.1	89.7	88.2	58.8	44.3	471	391	6,006	5,163
West Africa	414.7	532.3	124.7	83.5	30.1	15.7	379	306	6,025	3,417

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Grain demand in SSA for both food and other uses (including feed) is projected to increase by 45.0 percent in the next decade, from 141.2 million tons to 204.1 million tons, which is the highest of the four regions (*table 4*). This increase in demand

is driven mainly by the anticipated growth in population and improved per capita income (tables 3 and 4). From 2021 to 2031, grain demand is projected to increase 41.0 percent and reach 337 million tons. Demand for food grain is projected to grow at a higher rate (3.8 percent a year) relative to the demand for grain for other uses (3.2 percent a year). Moreover, the share of food demand (60.0 percent) of total grain demand is anticipated to remain relatively unchanged over the 10 year period. From 2021 to 2031, grain production is projected to grow (3.6 percent a year), on par with total grain demand (3.5 percent a year). However, driven by population growth, in absolute terms total grain demand will outpace production by 99.4 million tons by 2031, a projected increase of 39.0 percent in the gap between production and demand from 2021.

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Central Africa (CAF)

In 2021, the Central Africa (CAF) sub-region is estimated to have the highest prevalence of food insecurity in Sub-Sahara Africa region (SSA). Ninety-nine million people (*i.e.*, 69.0 percent of the population) in CAF are estimated to be food-insecure in 2021 (table 5). These substantial levels of food insecurity for 2021 in CAF are underpinned by continued armed conflicts, the COVID-19 pandemic, and incomes that are still below their pre-pandemic levels. The Democratic Republic of the Congo (DRC) accounts for 86.4 percent of the food-insecure population in the CAF sub-region. However, Cameroon is estimated to have the lowest prevalence of food insecurity of any country in the CAF sub-region at 21.1 percent of the population. The estimated number of food-insecure people in CAF for 2021 is 11.8 million higher than last year's calculation. The 2021 increase in food insecurity in the sub-region is largely driven by the anticipated rise in the number food-insecure people in the DRC. In 2021, GDP per capita in the sub-region is estimated to remain stagnant (-0.1 percent growth) and 3.4 percent lower than the average for the 2018-2020 period. The CAF sub-region is also estimated to have the lowest GDP per capita of the 4 regions in the assessment, \$630 annually, compared to the SSA average of \$1,311 (table 3).

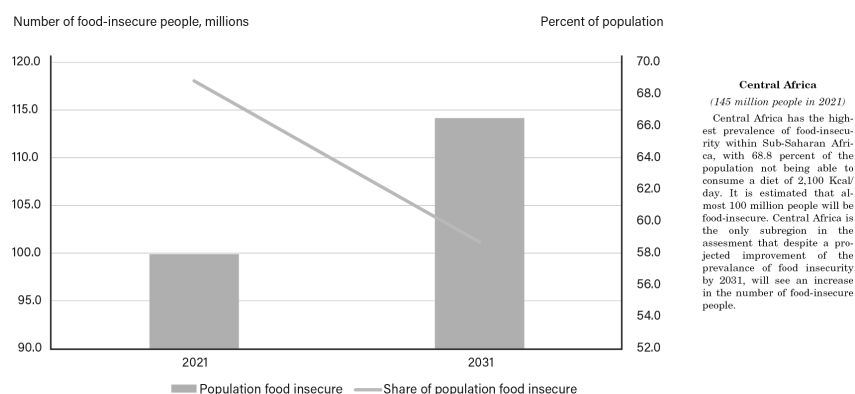
Table 5
Food security indicators for Central Africa (Sub-Saharan Africa), 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
Million tons					
2021	7.8	7.7	15.5	7.0	8.5
2031	11.3	9.3	20.6	8.5	12.1

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Central Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions	Millions	Millions	Millions	Percent	Percent	Kilo-calories/day	Kilo-calories/day	1,000 Metric tons	1,000 Metric tons
Central Africa	145.1	194.5	99.9	114.2	68.8	58.7	538	437	9,633	10,084
Cameroon	28.5	37.2	6.0	4.3	21.1	11.7	303	264	238	150
Central African Republic	6.1	7.5	4.5	2.3	73.9	31.2	555	351	283	92
Congo	5.4	6.8	3.1	2.7	56.7	39.6	402	337	162	120
Congo, DR	105.1	143.0	86.3	104.8	82.1	73.3	892	798	8,949	9,722

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031, GDP per capita is anticipated to grow 1.2 percent a year, reversing the negative trend during the 2015–2020 period, possibly reaching \$710 in the CAF sub-region (table 3). However, at the projected level, CAF will continue to have the lowest GDP per capita of any sub-region in IFSA. As a result of the projected slow growth in GDP per capita, the CAF sub-region is projected to see small improvements in its food security metrics by 2031. By 2031, the prevalence of food insecurity is anticipated to decline by 14.7 percent to 58.7 percent of the population, the highest of any sub-region (table 5). Excluding the DRC—the most food-insecure and largest country in CAF—the prevalence of food insecurity by 2031 is projected to decline by 46.4 percent to 18.2 percent of the population of the sub-region. The Central African Republic (CAR) is expected to reduce the prevalence of food insecurity the most, declining by 58.0 percent over the decade. But Cameroon is projected to have the lowest share (11.7 percent) of its population experiencing food insecurity by 2031.

By 2031, the number of food-insecure people in the sub-region is projected to be 114 million, about 14.3 million higher than in 2021. The anticipated increase in the number of food-insecure people in CAF is mainly driven by trends in DRC, where population growth is projected to outpace GDP per capita growth. Excluding DRC, CAF is expected to see a decline in the number of food-insecure people by 45.1 percent to 9.4 million by 2031. Over the next decade, the daily caloric food gap—the difference between observed consumption and the daily consumption target—is projected to decline by 18.6 percent from 538 kcal in 2021 to 437 kcal in 2031. However, there is significant variation in the sub-regional projections. By 2031, DRC is anticipated to see a 10 percent decline in the daily caloric food gap. By contrast, CAR is projected to see a 36.8 percent decline in its daily food Calorie gap, the highest in the sub-region by 2031.

Total grain demand in Central Africa—mainly driven by population growth—is projected to increase by 45.0 percent in the next 10 years, from 7.8 million tons in 2021 to 11.3 million tons in 2031. During the same period, the demand for feed and other uses will increase by 21.0 percent and the demand for food grain production will increase by 22.0 percent. Given the projected growth trends for grain demand

and production for both food and other uses, the gap between supply and demand is anticipated to grow throughout the decade. The additional supply required to meet sub-regional demand, either from imports or stocks, is projected to increase by 42.0 percent, reaching 12.1 million tons in 2031.

Cameroon is the most food-secure country in the CAF sub-region. However, the country's food security environment continues to be challenged by ongoing conflict and the COVID-19 pandemic (Global Network Against Food Crises (GNAFC), 2020). Cameroon's ability to respond to the pandemic has been limited by decreased oil prices—the country's main export—and continued internal conflict (GNAFC, 2020; FAO, 2020; World Food Programme (WFP), 2020). In 2021, Cameroon's GDP per capita is estimated to remain stagnant and 2.5 percent below the average for the 2018–2020 period. In 2021, the share of the population estimated to be food-insecure is 21.1 percent (6 million people). From 2021 to 2031, GDP per capita is projected to grow by 1.2 percent a year, lower than the anticipated growth for population (2.7 percent a year). However, real domestic prices of major grains are expected to steadily decline by an annual rate of 0.8 percent over the decade. By 2031, the share of food-insecure people is projected to decline 44.7 percent to 11.7 percent, and the number of food-insecure people is projected to be 4.3 million. Over the next decade, the daily caloric per capita food gap is expected to decline from 303 kcal in 2021 to 264 kcal in 2031.

The Central Africa Republic's (CAR) increasing insecurity due to armed conflict and economic impacts of the COVID-19-related restrictions are likely drivers of acute food insecurity (FAO and WFP, 2020). The CAR has the lowest GDP per capita in the CAF sub-region, making the population less resilient to income shocks. The CAR's GDP per capita is estimated to grow 1.1 percent to \$335.50 in 2021. However, GDP per capita is estimated to remain unchanged from the 2018–2020 period average of \$335.20. Reflecting the low-income levels in CAR, the country has the second highest estimated prevalence of food insecurity in the CAF sub-region. In 2021, the prevalence of food insecurity is estimated at 73.9 percent of the population. The number of food-insecure people in 2021 is estimated at 4.5 million. From 2021 to 2031, GDP per capita is projected to grow 2.4 percent a year, slightly higher than the anticipated population growth (2.0 percent a year) during the same period. By 2031, CAR's prevalence of food insecurity is projected to decline by 58.0 percent to 31.0 percent. The number of food-insecure people is anticipated to decline by 48.0 percent to 2.3 million. By 2031, the daily caloric food gap is expected to decline by 37.0 percent from 555 kcal in 2021.

The Democratic Republic of the Congo (DRC) is the largest country in Sub-Saharan Africa in terms of area and is the largest economy in the CAF sub-region. The Global Food Network Against Food Crises (GNAFC; 2020) estimates classify the DRC as the country that has the largest food crisis in absolute terms of any country globally. The DRC's food security situation continues to be affected by conflict and large numbers of internally displaced people. The COVID-19 restrictions have compounded the negative effects of the protracted economy and armed conflicts. Urban and peri-urban¹⁴ areas—which are areas more dependent on labor markets for their livelihood—were the most affected by the pandemic (GNAFC, 2020). In 2021, GDP per capita is estimated to marginally decline 0.2 percent from 2020 and remain 3.6 percent below the 2018–2020 period average. In 2021, it is estimated that the DRC has the highest prevalence of food insecurity (82.0 percent of the population) and the most food-insecure people (86.3 million) of any country in the CAF sub-region.

From 2021 to 2031, GDP per capita is projected to grow 1.5 percent a year, less than half the anticipated population growth rate (3.1 percent) over the same period. Given the anticipated slow growth of income, the DRC is not expected to see a significant improvement of its food security metrics by 2031. In 2031, the share of the population considered food-insecure is projected to decline by 10.8 percent to 73.3 percent of the population. However, the number of food-insecure people is anticipated to increase by 18.5 million in 2031. The projected increase in the absolute number of food-insecure people is mainly supported by the anticipated high population growth rate that outpaces income growth. Over the next decade, the daily per capita caloric food gap is expected to decline by 10.6 percent from 892 kcal in 2021 to 798 kcal in 2031—the highest projected daily per capita caloric food gap of any country in IFSA.

The Republic of the Congo (COG) has the smallest economy and population of any country in the CAF sub-region. The Republic of the Congo's food security situation is continually affected by the conflicts in neighboring DRC and CAR, as COG is a major recipient of large refugee populations. Moreover, COG's small economy was particularly impacted by the pandemic, as the country's GDP was estimated to have

¹⁴Relating to an area immediately surrounding a city or town.

declined by 4.5 percent in 2020 (Baquedano, *et al.*, 2021). In 2021, GDP per capita is estimated to marginally decline from 2020 (−0.2 percent) and remain 5.8 percent below the 2018–2020 period average. The prevalence of food insecurity for 2021 is estimated at 56.7 percent of the population. In 2021, the number of food-insecure people is estimated at 3.1 million in COG.

From 2021 to 2031, GDP per capita in COG is projected to grow at a rate of 0.2 percent a year, below the anticipated rate of growth of population (2.3 percent a year). As a result of the projected slow income growth, only moderate improvement in the country's food security metrics is anticipated over the next decade. By 2031, the share of the population considered food-insecure is expected to decline by 30.2 percent and reach almost 40 percent. The number of food-insecure people is projected to decline by 11.9 percent from its 2021 level and reach 2.7 million. Over the next decade, the daily caloric food gap is projected to decline by 16.2 percent from 402 kcal in 2021 to 337 kcal in 2031.

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East Africa (EAF)

In East Africa (EAF) the overlap of shocks has exacerbated food insecurity and poverty conditions in the EAF sub-region (FAO and WFP, 2020). These shocks include reduced agricultural output, protracted conflicts in some countries, the socio-economic effects of the COVID-19 pandemic and the effects of pandemic containment efforts. In 2020, EAF's GDP per capita declined by 2.9 percent from 2019. In 2021, it is estimated that EAF's GDP will grow by 4.0 percent and be 5.3 percent above the 2018–2020 period average. There is some variation from this trend as GDP growth in Burundi, Chad, and Eritrea is estimated to grow marginally in 2021 and remain below the 2018–2020 period average. In Sudan, GDP is estimated to grow 5.1 percent in 2021, but growth is anticipated to remain below the 2018–2020 average. As a result of the variation of GDP growth across countries in the EAF sub-region and continued population growth, GDP per capita in 2021 is estimated to be 1.6 percent below its 2019 level.

In 2021, because of the estimated GDP per capita levels for EAF, 46.3 percent of the population in the sub-region is anticipated to be food-insecure (*table 6*). The number of food-insecure people in EAF is estimated at 177.2 million people in 2021. Ethiopia, with a population of 111 million people, is estimated to have 37.7 million of its population considered food-insecure. Uganda is estimated to have the second highest number of food-insecure people in EAF, with 26.5 million food-insecure people.

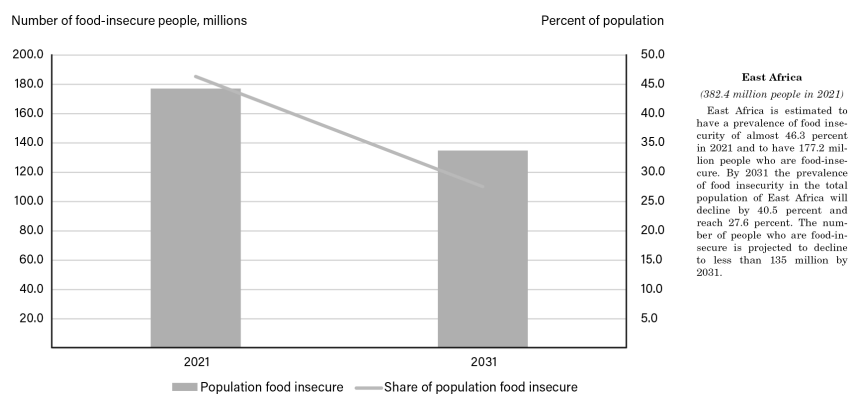
Table 6
Food security indicators for East Africa (Sub-Saharan Africa), 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
Million tons					
2021	50.6	23.3	73.9	61.3	12.7
2031	73.4	30.0	103.4	84.2	19.2

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

East Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
East Africa	382.4	489.7	177.2	134.9	46.3	27.6	487	407	9,493	6,988
Burundi	12.3	16.5	9.7	13.0	79.3	78.9	580	577	657	874
Chad	17.4	23.4	11.7	13.7	67.0	58.4	607	554	895	958
Eritrea	6.1	6.9	3.8	1.3	62.5	19.0	442	276	211	45
Ethiopia	110.9	139.6	37.7	16.0	34.0	11.4	318	239	1,093	304
Kenya	54.7	66.9	25.2	9.9	46.0	14.7	372	260	1,166	319
Rwanda	12.9	15.2	5.4	2.7	41.8	18.0	413	317	264	102
Somalia	16.4	21.8	13.7	16.8	84.0	77.2	727	659	1,146	1,271
Sudan	46.8	60.5	17.9	12.5	38.3	20.6	390	320	822	469
Tanzania	60.2	78.0	25.5	27.6	42.4	35.3	495	461	1,574	1,587
Uganda	44.7	60.9	26.5	21.5	59.2	35.2	522	410	1,665	1,060

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Over the next decade, the population of EAF will increase from 382.4 million to 489.7 million people, a projected growth rate of 2.5 percent a year (*table 6*). By contrast, GDP is anticipated to grow by 4.7 percent a year from 2021 to 2031 and reach \$620 billion. Reflecting the anticipated trends in population and GDP growth, GDP per capita is projected to grow at a rate 2.1 percent a year and increase from \$1,025 in 2021 to \$1,267 in 2031 (*table 3*). East Africa's projected GDP per capita growth rate is the fastest in the SSA region. Due to the anticipated income growth, the prevalence of food insecurity is projected to decline by 40.5 percent by 2031. In addition, the number of food-insecure people is projected to decline by almost 24.0 percent to 134.9 million (*table 6*). In absolute terms, Tanzania and Uganda are anticipated to have the highest numbers of food-insecure people in the EAF sub-region for 2031. Over the next decade all countries in the sub-region are expected to see an improvement in their daily per capita caloric food gap—defined as the difference between the estimated level of consumption and the recommended target of 2,100 kcal per day. In 2031, the daily Calorie food gap for the sub-region is projected at 407 kcal, a 16.3 percent decline from 2021.

Food grain demand in EAF—mainly driven by population growth—is projected to increase from 50.6 million tons in 2021 to 73.4 million tons in 2031 (*table 6*). Grain demand for feed and other uses is projected to increase moderately from 23.3 million tons in 2021 to 30 million tons in 2031. Although projected growth for total grain demand and production are both anticipated to average 3.3 percent over the next decade, demand is expected to outpace production in absolute terms. By 2031 an additional 19.2 million tons, either from imports and/or stocks, are projected to be required to meet the sub-regions consumption needs (*table 6*).

For 2021, Burundi is estimated to have the second-lowest GDP per capita in EAF, after Somalia. From 2021 to 2031, Burundi's population is projected to grow at a rate of 3.0 percent a year, an increase from the 2.3 percent annual rate of growth

over the 2015–2020 period. By contrast, GDP is anticipated to grow at a rate of 2.0 percent a year over the next decade. Given population and GDP growth trends, GDP per capita is projected to decline in the coming decade, by an annual rate of 1.0 percent from \$250 to \$226. As a result of the projected macroeconomic and population trends, the prevalence of food insecurity in Burundi is expected to remain high at 78.9 percent of the population by 2031. Over the coming decade, the country is anticipated to make little progress in reducing the per capita food gap in kcal, which is projected to decline by less than 1.0 percent from 580 kcal in 2021 to 577 kcal in 2031.

In Chad, an expected decline in population growth, increase in per capita GDP, and downward trend in real domestic prices of major grains are expected to contribute to the country's improved food security metrics. However, the improvement in the country's food security situation over the next decade is projected to be moderate. Over the next decade, the share of the population projected to be food-insecure is expected to decline from 67.0 percent in 2021 to 58.4 percent in 2031. Moreover, the projected prevalence of food insecurity for 2031 is anticipated to be more than double the projected sub-regional average for the same year. The per capita Calorie per day food gap is projected to decline by 8.7 percent from 607 kcal in 2021 to 554 kcal in 2031.

Eritrea's population is expected to grow annually by 1.2 percent in the next 10 years, an increase from 0.9 percent a year during the 2015–2020 period. Eritrea is among the countries with higher prevalence of food insecurity in the EAF sub-region. In 2021, 3.8 million people (62.5 percent) of the country are estimated to be food-insecure. The per capita daily Calorie food gap is projected to decline from 442 kcal in 2021 to 276 kcal in 2031.

In Ethiopia, the impacts of the Tigray conflict and heightened insecurity in other regions are expected to continually hamper access to key income and food sources, such as labor migration and livestock sales in 2021 (FAO, 2020 and Famine Early Warning Systems Network (FEWS NET), 2020). Moreover, according to the African Center for Diseases Control and Prevention (2021), Ethiopia is the country with the highest number of reported COVID–19 cases in the sub-region. The country is also estimated to see only moderate growth in its economy in 2021. With an annual growth rate of 2.4 percent, Ethiopia's population is projected to reach 140 million by the end of 2031. However, Ethiopia's GDP is projected to grow at a faster pace of 6.1 percent a year, among the highest in the sub-region and on par with Uganda. As a result of income and population trends, per capita GDP is anticipated to grow by 3.7 percent during the 2021–2031 period. The real domestic price for major grains is projected to follow a declining trend, decreasing at a rate of 1.4 percent a year. By 2031, Ethiopia is expected to have the lowest prevalence of food insecurity (11.0 percent) in the EAF sub-region. The number of food-insecure people is projected to decline by almost 60.0 percent over the next decade. However, given that Ethiopia has the largest population in EAF, the country will still account for the largest number of food-insecure people (16 million) by 2031.

In Kenya, GDP per capita is anticipated to increase 1.8 percent in 2021 from its sharply reduced 2020 level, but income is expected to remain below its pre-pandemic level. It is estimated that 46.0 percent of the country's population could be food-insecure in 2021. However, by 2031, the prevalence of food insecurity is projected to decline by 68.0 percent because of a decline in real domestic prices for major grains and annual GDP per capita growth of 2.5 percent. The daily caloric food gap is projected to decline from 372 Kcal in 2021 to 260 Kcal by 2031.

Rwanda is among the fastest growing economies in the sub-region and is expected to maintain its pace of sustained GDP growth (4.4 percent, annually) in the coming decade. Moreover, in 2021, GDP per capita is estimated to be above the period average of 2018–2020. The prevalence of food insecurity in 2021 is estimated at 41.8 percent and is projected to decline by 56.8 percent to 18.0 percent by 2031. The estimated daily Calorie food gap in 2021 is projected to decline by 23.3 percent over the next decade and remain below the EAF sub-regional average.

Somalia is estimated to have the lowest GDP per capita of all countries included in the assessment, at \$101 in 2021. This figure is projected to slightly increase, at a rate of 0.4 percent a year during the next 10 years and reach \$105 in 2031. With real domestic price of major grain commodities expected to remain unchanged, Somalia's prevalence of food insecurity is projected to fall by 8.1 percent to 77.2 percent of the population by 2031. The estimated daily Calorie food gap in the country for 2021 is among the highest in the sub-region. By 2031, the daily Calorie food gap is projected to decline by 9.4 percent from 727 kcal in 2021 to 659 kcal in 2031.

In Sudan, food and transport prices have followed an upward trend since the last quarter of 2020, and grain prices (*e.g.*, sorghum and millet) were approximately seven times higher than the 5 year average at the end of the year 2020 (FEWS

NET, 2020). In addition, persistently low foreign currency reserves and high-import demand for essential food and non-food items led to a sharp depreciation of the Sudanese pound relative to the U.S. dollar (FEWS NET, 2020). The current projection for Sudan estimates a 4.6 percent decline in GDP per capita from 2021 to 2031, and prices for major grains are expected to increase at an annual rate of 1.2 percent. However, the anticipated rate of decline in GDP per capita (−0.5 percent a year) over the period of 2021–2031 is an improvement over the rate (−3.5 percent a year) observed during the 2015–2020 period. The population growth rate is projected to decline from 2.9 percent in 2021 to 2.6 percent in 2031. As a result of an anticipated slowed growth rate and a less rapid decline in per capita income, some improvement is expected for Sudan's food security metrics over the next decade. The prevalence of food insecurity is projected to decline by 46.0 percent from its 2021 estimate to 20.6 percent of the population. By 2031, the number of food-insecure people is anticipated to decline by 30.0 percent from the 2021 estimate to 12.5 million.

The United Republic of Tanzania has the second-highest population in EAF, after Ethiopia, with an estimated 60 million people in 2021. At a projected annual rate of growth of 2.6 percent year, the country's population is expected to reach to 78 million by 2031. The rate of growth of GDP per capita is expected to slow to 1.0 percent a year during the 2021–2031 period from 2.5 percent for the 2015–2020 period. The prevalence of food insecurity is projected to decline by 16.6 percent from its 2021 estimate, to 35.3 percent of the population. This projected decline reflects an anticipated higher population growth and lower income growth over the next decade. However, the number of food-insecure people is projected to grow by 8.0 percent from 2021 to 2031. The daily Calorie food gap is anticipated to decline by 6.8 percent from 495 kcal in 2021 to 461 kcal in 2031.

Uganda's GDP is projected to grow at an annual rate of 6.1 percent in the coming decade, on par with Ethiopia, and the highest in the sub-region. Uganda's population is expected to grow by 3.1 percent a year from 2021 to 2031, lower than the rate of growth (3.7 percent) for the 2015–2020 period. The share of the food-insecure population in Uganda is projected to decline by 23.9 percentage points, from 59.2 percent in 2021 to 35.2 percent in 2031, the second-highest decline in the EAF sub-region. The number of food-insecure people is expected to decline by 19 percent from its 2021 estimate, to 21.5 million in 2031. Over the next decade the daily per capita Calorie food gap is projected to decline by 21.5 percent from 522 kcal in 2021 to 410 kcal.

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Southern Africa (SAF)

In 2021 the food security environment in the Southern Africa (SAF) sub-region continues to be affected by a number of factors including but not limited to natural hazards, pest infestations such as locust, and the slowdown in economic activities due to COVID–19-related restrictions (FAO and WFP, 2020). Although food-supply chains have remained functional, COVID–19-related border closures and movement restrictions, combined with reduced harvests in some countries, have led to above-average food prices and hindered food access (FAO and WFP, 2020).

Notwithstanding the difficult food security environment, in 2021, SAF's economy is estimated to grow 2.8 percent, but GDP is anticipated to remain below the 2018–2020 period average. Moreover, GDP per capita in 2021 is estimated to remain unchanged from 2020 and below the 2018–2020 period average. However, there is some variation in the estimates of economic growth across the SAF sub-region. For example, the estimates for GDP per capita growth in 2021 for Madagascar, Malawi, and Mozambique are anticipated to be above the 2020 values and the 2018–2020 period average. But only in Madagascar is the GDP per capita estimated to follow the same trend as GDP in 2021. By contrast, Zambia and Zimbabwe are anticipated to see moderate growth of GDP, but a contraction of GDP per capita in 2021.

The SAF sub-region is estimated to have the second-highest prevalence of food insecurity in SSA after CAF. In 2021, 58.8 percent of the population (89.7 million people) of the SAF sub-region is estimated to be food-insecure (*table 7*). The most food-insecure country in the SAF sub-region is estimated to be Zimbabwe (83.2 percent of the population) and the most food-secure country is estimated to be Eswatini, formerly known as Swaziland (31.1 percent of the population).

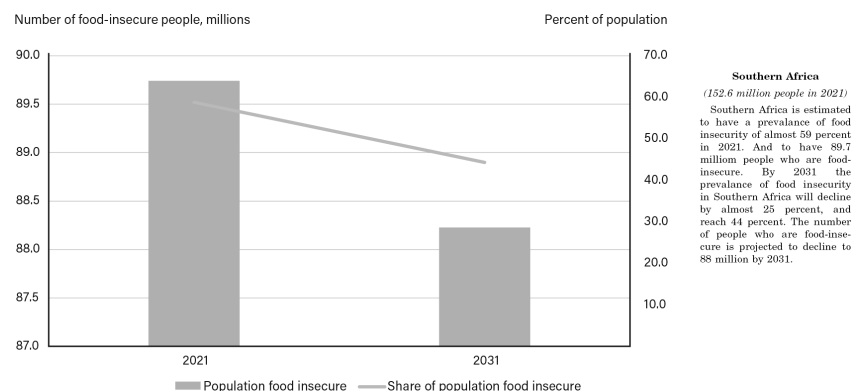
Table 7
Food security indicators for Southern Africa sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	19.1	21.7	40.8	24.3	16.5
2031	27.1	29.8	57.0	34.1	22.9

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Southern Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total) *	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Southern Africa	152.6	199.1	89.7	88.2	58.8	44.3	471	391	6,006	5,163
Angola	33.6	46.9	17.1	23.6	50.9	50.4	443	440	965	1,323
Lesotho	2.0	1.9	0.8	0.2	40.7	12.5	364	259	34	7
Madagascar	27.6	34.1	18.3	17.4	66.5	51.0	493	418	1,295	1,039
Malawi	21.9	30.2	8.6	5.7	39.5	18.8	405	322	408	213
Mozambique	30.9	39.9	18.1	14.8	58.7	37.0	519	417	1,214	795
Namibia	2.7	3.2	1.1	0.8	42.9	26.2	323	270	46	28
Eswatini	1.1	1.2	0.3	0.2	31.1	17.2	308	260	12	6
Zambia	17.9	23.8	12.9	15.4	71.7	64.9	697	646	1,065	1,186
Zimbabwe	14.8	18.0	12.3	10.1	83.2	55.9	685	492	967	565

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

From 2021 to 2031, the SAF's GDP is projected to expand 3.5 percent a year, a reversal of the previous trend of a contraction of 0.6 a year during the 2015–2020 period. With a projected annual population growth rate of 2.7 percent—a slight decline from 2.8 percent a year during the 2015–2020 period—the population in Southern Africa will increase from 153 million in 2021 to 199 million people in 2031. The anticipated population and GDP growth trends imply that, over the same period, annual GDP per capita is anticipated to slightly expand by 0.8 percent a year, which is an improvement from –3.3 percent a year during the 2015–2020 period. GDP per capita in SAF is estimated to grow from \$1,367 in 2021 to \$1,479 in 2031. Reflecting the projected income growth by 2031, the prevalence of food insecurity is expected to decline by 25.0 percent from its 2021 level to 44.3 percent (table 7).

By 2031, Lesotho and Malawi are projected to make the most progress at reducing the prevalence of food insecurity, reducing food insecurity by 69.4 percent and 52.3 percent, respectively. By contrast, Zambia is projected to make the least progress over the decade, reducing its share of its population considered food-insecure by 9.0 percent. Both Zambia (65.0 percent) and Zimbabwe (56.0 percent) are projected to have the highest share of their population considered food-insecure in 2031. The number of food-insecure people in the SAF sub-region is expected to marginally decline, going from 89.7 million people in 2021 to 88.2 million people in 2031. The projection of a small decline in the number of food-insecure people mainly reflects the anticipated slight decline in the population growth rate. Angola and Zambia are anticipated to follow an opposite trend from the sub-regional trend and see an increase in the number of food-insecure people between 2021 and 2031. All countries in the SAF are projected to see an improvement in their daily per capita Calorie food gap in the next decade. The daily per capita Calorie food gap—which represents the difference between estimated consumption and the daily requirement of 2,100 kcal—is projected to decline 16.8 percent, from 471 kcal in 2021 to 391kcal in 2031 (*table 7*).

Over the next decade, grain demand in SAF is projected to increase by 36.6 percent, from 40.8 million tons in 2021 to 57 million tons in 2031 (*table 7*). From 2021 to 2031, demand for food is projected to grow (3.6 percent a year) at a faster pace than demand for grain for other uses (3.2 percent a year). In absolute terms demand for grain for other uses in 2031 is projected to be 2.7 million tons higher than the demand for food grains. Over the decade production is projected to increase almost 40.0 percent, growing 3.4 percent a year on par with the projected annual growth of grain demand. In absolute terms demand is anticipated to exceed production by almost 23 million tons (*table 7*).

Angola has the third largest economy in Sub-Saharan Africa, with an estimated GDP of \$108 billion in 2021. With a projected annual growth rate of 3.2 percent, GDP is expected to reach \$149 billion by 2031. Angola is also among the countries with the highest projected population growth rates in the sub-region. Although lower than the 2015–2020 period average (3.6 percent), the annual population growth rate between 2021 and 2031 is expected to be 3.4 percent. Reflecting projected population growth trends over the decade GDP per capita is anticipated to experience a net decline (–0.2 percent a year). GDP per capita is projected to decline from its 2021 estimate of \$3,233 in 2021 to \$3,177 in 2031. The real domestic price of major grains in the country is also projected to increase by an annual rate of 4.0 percent, reversing the annual downward trend of the 2015–2020 period (–0.2 percent). More than half of Angola's population (51.0 percent) in 2021 is estimated to be food-insecure. By 2031, this metric is projected to remain relatively unchanged. Half of Angola's population (23.6 million) is projected to fall short of the daily Calorie requirement by 2031, the highest number in the SAF sub-region. The daily per capita Calorie food gap is also anticipated to remain relatively unchanged, from 442 kcal in 2021 to 440 kcal in 2031.

Lesotho has the second smallest population in the SAF sub-region, and it is the only country in SSA whose population is anticipated to decline over the next decade. Lesotho's population is projected to hover around 2 million between 2021 and 2031, declining annually by 0.1 percent. The country's GDP is projected to expand annually by 2.9 percent, resulting in an expected increase in GDP per capita from \$1,209 in 2021 to \$1,629 in 2031. The real domestic price of major grains is projected to decline between 2021 and 2031, at a rate of –0.9 percent a year. The combined effects of the projected population, income, and price trends over the next decade are anticipated to reduce the prevalence of food insecurity by 69.4 percent. The number of food-insecure people is projected to also decline sharply, from about 800,000 people in 2021 to 200,000 in 2031. By 2031, Lesotho is projected to be the least food-insecure country in SAF.

The Republic of Madagascar—an island country in the Indian Ocean—is projected to grow in population from 28 million in 2021 to 34 million in 2031, at an annual growth rate of 2.1 percent. Surpassing the anticipated population growth rate, Madagascar's GDP is anticipated to grow by 3.5 percent a year and reach \$20.1 billion by 2031. Although GDP per capita is projected to grow by 1.5 percent a year by 2031, the expected growth in income is dampened by an anticipated trend of increasing real domestic prices for major grains (0.5 percent a year). These macroeconomic trends are expected to lead to a moderate decline in the prevalence of food insecurity over the next decade. The share of the population considered food-insecure is projected to decline from its estimate of 66.5 percent in 2021 to 51.0 percent in 2031. After Angola, the Republic of Madagascar is projected to have the second highest number of food-insecure people (17.4 million) in SAF by 2031. The daily per

capita Calorie food gap is expected to decline 15.0 percent, from 493 kcal in 2021 to 418 kcal in 2031.

Malawi—a landlocked country—has the lowest estimated GDP per capita in SAF for 2021. Driven by projections of annual population and GDP growth rates of 3.3 percent and 4.1 percent, respectively, Malawi's GDP per capita is anticipated to increase from \$338 in 2021 to \$366 in 2031. The increasing income trend is complemented by an anticipated declining trend in real domestic price of major grains (−2.6 percent annually) between 2021 and 2031. The anticipated income and price trends are expected to sharply reduce food insecurity in the country over the coming decade. The prevalence of food insecurity is projected to decline from 39.5 percent to 18.8 percent in the next 10 years, the third lowest after Eswatini and Lesotho.

Over the coming decade, Mozambique's GDP is projected to grow at the fastest rate of any country in SAF, growing by 5.2 percent annually. However, Mozambique's population is projected to grow at half that rate. As a result of these trends, GDP per capita in the country is projected to increase significantly, from \$599 in 2021 to \$774 in 2031. Reflecting the projected income trend, the share of the population considered food-insecure is expected to decline by 36.9 percent to 37.0 percent in 2031. The number of food-insecure people is projected to decline by 18.5 percent to 14.8 million people. By 2031, the daily per capita Calorie food gap is expected to decline by 19.6 percent, from 519 kcal in 2021 to 417 kcal in 2031.

Namibia's population over the next decade is projected to hover around 3 million, growing at 1.8 percent a year. Accounting for population and GDP growth rates of 1.8 percent and 2.7 percent, respectively, the country's GDP per capita is projected to increase by 0.9 percent from \$3,914 in 2021 to \$4,288 in 2031. The real domestic price of major grains in Namibia is projected to decline annually by 0.6 percent. As a result of the anticipated income and price trends, the prevalence of food insecurity in Namibia's population is expected to decline from 42.9 percent to 26.2 percent, *i.e.*, from 1.2 million to 800,000 people by 2031.

Eswatini—formerly known as Swaziland until 2018—has the lowest population in SAF, estimated at one million in 2021. Over the next decade, Eswatini's economy is projected to expand (GDP growth of 2.0 percent a year) at more than 3 times the pace of population growth (0.6 percent a year). As a result, the country is expected to make significant income gains, with GDP per capita anticipated to grow at a pace of 1.4 percent a year between 2021 to 2031. Eswatini's GDP per capita is projected to be the highest in Southern Africa at \$4,396 in 2031. The anticipated macroeconomic trends, coupled with declining real domestic prices of major grains (−0.5 percent a year between 2021 to 2031), are expected to support Eswatini's improved food security conditions. By 2031, the prevalence of food insecurity is projected to decline by 44.7 percent to 17.2 percent of the population. By 2031, the country is projected to have the second lowest per capita per day Calorie food gap in Southern Africa after Lesotho. The per capita daily Calorie food gap is projected to decline 16.0 percent over the decade, going from 308 kcal in 2021 to 260 kcal in 2031.

Zambia is estimated to have the second-highest share of its population, after Zimbabwe, considered food-insecure in the SAF sub-region. In 2021, 71.7 percent of Zambia's population is considered food-insecure. The estimated high prevalence of food insecurity for 2021 is driven by an expectation of GDP per capita to remain about 7.5 percent below its 2019 levels. By 2031, the prevalence of food insecurity is projected to remain high at 64.9 percent. The anticipated high level of food insecurity at the end of the decade mainly reflects slower projected per capita GDP growth (0.7 percent a year from 2021 to 2031) and an increasing price trend for major grains (one percent a year). The number of food-insecure people is projected to increase by 2.6 million from 2021 to 2031.

Zimbabwe is Southern Africa's most food-insecure country in 2021, with an estimated 83.2 percent of its population unable to meet the daily caloric requirement. Continued macroeconomic crises, coupled with the socioeconomic impacts of the COVID-19 pandemic, will drive the acute food insecurity situation in the country in 2021 (FAO and WFP, 2020). Over the next decade, GDP per capita growth is projected to recover from a declining trend of 2.8 percent a year during the 2015–2020 period to growth of 1.9 percent a year. As a result of the anticipated improvements in income, the prevalence of food insecurity by 2031 is projected to decline a third to 55.9 percent of the population. Over the next decade the daily per capita food gap is anticipated to decline 28.2 percent, from 685 kcal in 2021 to 492 kcal in 2031.

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West Africa (WAF)

Food insecurity across West Africa (WAF) and the Sahel has risen dramatically, due to increasing conflict and the impact of COVID-19-related restrictions (FAO and WFP, 2020). COVID-19 decreased income, increased poverty, disrupted regional trade, supply chains, and cross-border pastoralist activities, and inflated food prices in the Sahel (e.g., Burkina Faso, Niger, and Nigeria) and some coastal countries (e.g., Sierra Leone and Liberia) (FSIN and GNFAAC, 2020). In high-conflict zones (such as the Central Sahel and northern Nigeria) civilians are increasingly affected by violence and conflict, with rising levels of displacement (FAO and WFP, 2020).

In 2020, the GDP of the WAF sub-region declined by 4 percent (Baquedano, *et al.*, 2021). In 2021, GDP is estimated to grow by 3.3 percent and be 1.6 percent above the SSA average for the period 2018–2020. However, GDP per capita in 2021 is estimated to remain 5.8 percent below its pre-pandemic level of \$1,905 in 2019 (table 3). The number of food-insecure people in 2021 is estimated at 124.7 million, an increase of 8.6 million from last year's estimate (table 8). The largest estimated increase in the number of food-insecure people are in Côte d'Ivoire (2.1 million people) and Niger (2.9 million people). By contrast, Gambia (–0.2 million people) and Nigeria (–4.1 million people) are estimated to experience a decline in the number of food-insecure people from 2020's values. Despite the anticipated high numbers of food-insecure people, in 2021, the WAF sub-region is estimated to have the lowest prevalence of food insecurity in SSA. The share of the population considered food-insecure is estimated at 30.1 percent, 1.2 percentage points higher than last year's estimate. Guinea is estimated to be the most food-secure country in the sub-region—with a prevalence of food insecurity of 8.6 percent—and Liberia the least food-secure (table 8).

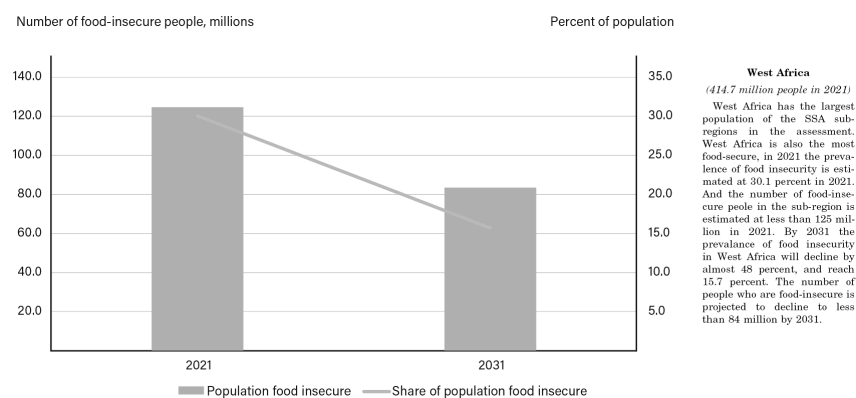
Table 8
Food security indicators for West Africa sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	63.7	45.8	109.5	74.7	34.8
2031	92.3	65.8	158.1	111.3	46.8

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

West Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
West Africa	414.7	532.3	124.7	83.5	30.1	15.7	379	306	6,025	3,417
Benin	13.3	18.4	2.7	1.1	20.3	6.1	319	250	116	38
Guinea-Bissau	2.0	2.5	1.0	0.7	52.1	26.5	422	323	57	29
Burkina Faso	21.4	26.9	6.4	4.3	30.1	15.9	456	385	364	205
Cabo Verde	0.6	0.7	0.2	0.1	36.6	9.6	338	238	10	2
Côte d'Ivoire	28.1	34.6	6.9	5.9	24.5	16.9	420	382	414	321
Gambia	2.2	2.6	0.5	0.1	22.5	4.4	298	216	17	3
Ghana	30.0	36.8	2.6	0.7	8.6	1.9	249	201	82	18
Guinea	12.9	16.9	2.9	2.0	22.6	11.8	356	306	162	95
Liberia	5.2	6.8	3.1	2.2	59.0	32.0	619	475	213	116
Mali	20.1	26.8	4.1	4.0	20.5	14.9	329	305	172	154
Mauritania	4.1	4.9	0.8	0.3	19.6	5.6	316	246	32	9
Niger	23.6	34.0	9.1	5.6	38.5	16.5	456	355	582	280
Nigeria	219.5	280.5	74.5	51.0	33.9	18.2	351	291	3,287	1,870
Senegal	16.1	19.9	3.6	1.3	22.5	6.7	278	215	143	41
Sierra Leone	6.8	8.7	3.1	2.7	45.0	31.3	497	433	235	183
Togo	8.8	11.2	3.1	1.6	35.5	14.2	356	275	139	55

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031, the population of WAF is projected to increase by 118 million from its 2021 estimate, growing annually at a rate of 2.5 percent. From 2021 to 2031, GDP is expected to expand at a rate of 3.8 percent a year and reach close to \$1.1 trillion. Given the anticipated fast pace of expansion in WAF's economy, relative to population growth, GDP per capita is projected to increase from \$1,794 in 2021 to \$2,024 in 2031 (*table 3*). The WAF sub-region is projected to see a 47.8 percent decline in its prevalence of food insecurity, with the share of the population considered food-insecure dropping to 15.7 percent by 2031 (*table 8*). By 2031, Benin, Ghana, Guinea, Mauritania, and Senegal are projected to be among the least food-insecure countries in the WAF sub-region. By contrast, Sierra Leone is projected to be the most food-insecure country in the sub-region, with 31.3 percent of the country's population projected to be food-insecure by 2031. Over the next decade, the number of food-insecure people in WAF is projected to decline by 41.2 million people, with Nigeria accounting for more than half of this estimated decline. Mali is projected to make the least progress over the next decade, with the country's number of food-insecure people remaining relatively unchanged at around 4 million. All WAF countries included in IFSA are anticipated to see an improvement in their daily per capita Calorie food gap in the next decade (*table 8*). By the end of the decade, the per capita daily Calorie food gap is projected to decline 19.2 percent, from 379 kcal in 2021 to 306 kcal in 2031.

Total grain demand in the WAF sub-region is projected to increase by an additional 48.6 million tons over the next 10 years, from an estimate of 109.5 million tons in 2021, to 158.1 million tons in 2031 (*table 8*). Demand for food grain is anticipated to account for 59.0 percent of the growth in grain demand and increase by 28.6 million tons by 2031. By contrast, over the next decade, the demand for grain for other uses (including feed) is projected to increase by a lower amount, 20 million tons. Grain production is projected to increase less than total grain demand, increasing by 36.6 million tons by 2031. To cover the estimated growth in the gap between grain demand and production by 2031, the WAF sub-region is projected to need an additional supply of 12 million tons of grain.

Nigeria is the largest economy and the most populous country in the WAF sub-region. The country is highly susceptible to global economic shocks, as it is highly dependent on export revenues from crude oil sales. In addition to the widespread socioeconomic effects from the COVID-19 pandemic, conflict in the north-eastern and north-central parts of the country continue to impact food security (FSIN and GNFA, 2020). Over the next decade, Nigeria's economy is expected to expand at an annual rate 3.4 percent, a reversal of the declining trend in GDP growth rate of -0.5 percent a year during the 2015-2020 period. Over the next decade, Nigeria's population is projected to grow at a rate of 2.5 percent a year, to add 61 million people. Given that the growth rate of the Nigerian economy is anticipated to outpace population growth rate by 2031, GDP per capita is expected to increase from an estimated \$2,259 in 2021 to \$2,475 in 2031. Driven by anticipated income growth over the coming decade, the prevalence of food insecurity is projected to decline, from 33.9 percent of the population in 2021 to 18.2 percent in 2031. The number of food-insecure people by 2031 is expected to decline by roughly 30 percent, to 51 million.

Ghana and Côte d' Ivoire have the second- and third-largest economies, respectively, and together account for 14 percent of the WAF sub-region's population. While the economies of both countries were estimated to have shrunk by less than 2.0 percent in 2020, their GDP is expected to grow by more than 5.0 percent in 2021, and, in absolute terms, remain above the 2018–2020 period average. Moreover, GDP per capita in 2021 is estimated to be marginally below their pre-COVID–19 pandemic levels. Both countries are anticipated to see real income gains over the next decade, as GDP growth is projected to outpace population growth. By 2031, Ghana is projected to make the most gains in its food-security metrics, with both the prevalence of food insecurity in the population and the number of food-insecure people projected to decline by more than 70.0 percent. Over the next decade, Côte d' Ivoire's progress is anticipated to be more moderate, with the share of the population considered food-insecure projected to decline by almost $\frac{1}{3}$ and the number of food-insecure people declining by 15.0 percent.

The food security environment of the Central Sahelian countries of the WAF sub-region—including Burkina Faso, Mali, and Niger—continues to be impacted by protracted armed conflicts, as well as the socioeconomic effects from the COVID–19 pandemic. Burkina Faso and Mali were also impacted by decreased cotton prices in 2020, a major source of export revenues for both economies. In the conflict areas of the Central Sahelian countries, displaced populations face limited access to food (FSIN and GNFAC, 2020). Moreover, severe disruptions to marketing chains have also been reported because of the pandemic, affecting price levels of the general populations of Central Sahelian countries. Despite the challenging macroeconomic and food security environment in 2021, all countries are projected to see a moderate rebound in their economic growth prospects over the next decade. By 2031, the prevalence of food insecurity across the 3 countries is projected to decline by 47.5 percent to less than 16.0 percent, with the sharpest declines projected in Burkina Faso and Niger. The number of food-insecure people in these 3 countries in 2031 is projected at 13.9 million, 29.3 percent lower than in 2021.

In Liberia and Sierra Leone, the COVID–19 pandemic put further pressure on their already declining economic environment. The economies of the two countries continue to be impacted by high inflation and a strong depreciation of the local currency (Food Security Information Network (FSIN) and GNFAC, 2020). Moreover, shortages of inputs in 2020—particularly fertilizers—depressed crop outputs (FAO and WFP, 2020). In 2021, Liberia and Sierra Leone are estimated to have a large share of their population considered food-insecure. However, by 2031, the prevalence of food insecurity is projected to decline by at least 30.0 percent in both countries, which would likely be driven by an anticipated recovery in the economic prospects of both countries. By 2031, the number of food-insecure people across both countries is expected to decline by 38.0 percent, to less than 5 million.

Gambia and Guinea-Bissau have the smallest economies in the WAF sub-region and account for 1.0 percent of the sub-region's population. Before the COVID–19 pandemic, the two countries faced an already challenging macroeconomic and food security environment. Decreased oil prices in 2020—Gambia's main export—and an anticipated decline in remittances for Gambia and Guinea-Bissau, both limited their responses to the COVID–19 pandemic and may have increased poverty levels (FSIN and GNFAC, 2020). By 2031, GDP per capita in Gambia is projected to make a strong recovery and grow at a rate of 3 percent a year. Guinea-Bissau's income growth is anticipated to be more moderate than Gambia's, with GDP per capita growth projected at 1.1 percent per year from 2021 to 2031. Given the expected robust income gains in Gambia, the prevalence of food insecurity is projected to decline by 81.0 percent and the number of food-insecure people by 77.0 percent. By contrast, Guinea-Bissau is anticipated to make less progress over the same period. The share of the country's population considered food-insecure, and the number of food-insecure people, are projected to decline by 49.0 percent and 34.0 percent, respectively.

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North Africa

North Africa (NAF) is the most food-secure region in the IFSA analysis, with only 14 percent of its regional population estimated to be food-insecure in 2021. However, the countries of the region continue to be affected by the economic slowdown due to the COVID-19 pandemic. The impact on the energy and tourism sectors of North Africa—both main sources of government revenues and employment for low-income workers—continues to affect the purchasing power of households, especially in urban areas (Food and Agriculture Organization of the United Nations (FAO), 2021). Continued subsidies for basic food commodities have mitigated income decline, while also buffering consumers from recent international food price increases (FAO, 2021). Driven by an estimate of incomes that are still lower than 2019 (*table 9*), the prevalence of food insecurity is anticipated to increase sharply for 2021. The share of the population estimated to be food-insecure in the NAF region (for 2021) increased by 5.5 percent from its 2020 value (*table 10* and *figure 6*). Egypt is estimated to have both the highest prevalence of food insecurity (18.9 percent) and the highest number of food-insecure people (20.1 million) in the region (*table 10*). By contrast, Tunisia is estimated to have the lowest levels of food insecurity in both relative (6.0 percent of the population) and absolute terms (less than one million people).

Table 9

Inflation adjusted per capita income for the North Africa region, 2021 and 2031

	2019 (pre- COVID-19)	2021	2031
	Dollars (2015 U.S.)		
North Africa	3,864	3,537	4,240
Algeria	4,190	3,838	4,367
Egypt	3,950	3,551	4,194
Morocco	3,188	3,068	3,945
Tunisia	3,973	3,732	5,144

Source: USDA, Economic Research Service International Macroeconomic Dataset.

Table 10

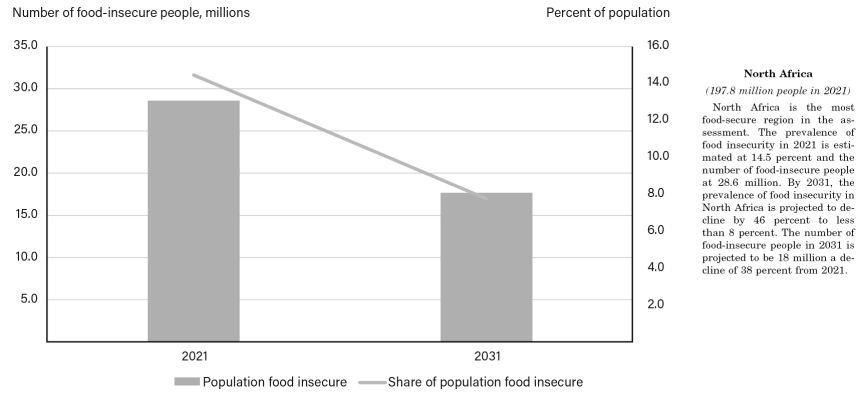
Food security indicators for North Africa region, 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
	Million tons				
2021	47.9	44.3	92.1	36.1	56.1
2031	59.5	55.4	114.9	46.0	68.9

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

North Africa indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
North Africa	197.8	228.0	28.6	17.7	14.5	7.8	280	245	1,116	613
Algeria	43.6	48.6	5.2	2.3	11.8	4.8	282	241	189	73
Egypt	106.5	128.3	20.1	13.7	18.9	10.7	331	292	811	490
Morocco	35.9	38.8	2.7	1.4	7.4	3.5	266	238	93	43
Tunisia	11.8	12.4	0.7	0.3	6.0	2.3	242	211	22	7

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Figure 6

North Africa: Change in the number of food-insecure people in 2021, from 2020

Change in the number of food-insecure population



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

The NAF region's GDP is projected to annually expand by 3.3 percent (an improvement from 2.3 percent during the 2015–20 period), from \$699.5 billion in 2021 to \$966.8 billion in 2031. With an anticipated annual growth rate of 1.4 percent—a decline from 1.9 percent during the 2015–20 period—the population in the NAF region is projected to increase from 198 million to 228 million people over the next decade. During the same period, GDP per capita is anticipated to expand by 1.8 percent (an improvement from 0.4 percent from the 2015–2020 period) annually from \$3,537 to \$4,240 (table 9). By 2031, reflecting income and population trends over the decade, 17.7 million people are projected to be food-insecure in the NAF region, a 38 percent decline from 2021 (table 10). Egypt is expected to account for most of the region's food-insecure population in 2031. The per capita daily Calorie food gap, defined as the difference between estimated consumption and the daily nutritional target of 2,100 kcal, in the NAF region is projected to decline from 280 kcal in 2021 to 245 kcal in 2031 (table 10).

Total grain demand in the NAF region is projected to increase, from 92.1 million tons in 2021 to 114.9 million tons in 2031, driven mainly by Egypt's growing demand for grains (table 10). Over the next decade, the annual growth rate of grain production (2.5 percent a year) is projected to outpace the growth rate in total grain demand (2.2 percent a year). In absolute terms, total grain demand is expected to be 2.5 times higher than production by 2031, resulting in an anticipated 23.0 percent increase in the implied additional supply requirement.

In 2021, Algeria is NAF's second most food-insecure country, with estimated food insecurity rate at 12 percent and this figure is projected to decline to 5 percent by 2031. The number of Algerian food-insecure people is projected to decline by more than half from its 2021 estimate, from 5.2 million to 2.3 million.

Considering the economic fallout from the COVID–19 pandemic, and as a country that is dependent on petroleum and natural gas exports for export earnings, Algeria's GDP contracted by an average of 0.9 percent during the 2015–20 period. Over the next decade the country's economy is projected to grow by 2.4 percent a year, the lowest anticipated GDP growth among the NAF countries. The food gap expressed as a percentage of the daily per capita nutritional target of 2,100 kcal is projected to decline from 13.4 percent (281.5 kcal) in 2021 to 11.5 percent (240.3 kcal) to 2031.

Egypt in 2021, is estimated to have the highest share and the greatest number of food-insecure people in the NAF region. The Egyptian GDP per capita in 2021 is estimated at \$3,551 and projected to grow at an annual rate of 1.7 percent during the next decade. The real domestic price of major grains is projected to decline at annual rate of 0.9 percent over the decade, the smallest decline in the NAF region. Reflecting income and price trends over the next decade, the number of food-insecure people is projected to decline by $\frac{1}{3}$, to 13.7 million by 2031. The prevalence of food insecurity is projected to decline from an estimated 18.9 percent of the population in 2021 to 10.7 percent in 2031. The depth of food insecurity in the country in 2021 is also estimated to be the highest in the region, with an average food gap of 331 kcal per capita per day. By 2031, the daily Calorie food gap is projected to decline to 292 kcal but remain the highest in the NAF region.

Morocco is the second most food-secure country in the NAF region, with the estimated prevalence of food insecurity estimated at 7.4 percent of the population in 2021, and it is projected to decline to 3.5 percent by 2031. Some 2.7 million people are estimated to be food-insecure in 2021, and over the next decade, this number is anticipated to decline by 48 percent. The daily per capita Calorie food gap is estimated at 266 kcal in 2021, the second lowest in the NAF region. By 2031, the per capita per day Calorie food gap is projected to decline 10.6 percent to 238 kcal.

Tunisia, a lower middle-income country, is the least food-insecure country in the NAF region with an estimated 6 percent of its population food-insecure in 2021. By 2031, the prevalence of food insecurity is projected to decline to 2.3 percent of the population. The anticipated improvement in the country's food security status over the next decade is supported by anticipated sustained growth in income and lower food prices. Tunisia's GDP per capita is projected to grow from \$3,732 to \$5,144 in the coming decade. The real domestic price of major grains is expected to steadily decline at a rate of 2.0 percent a year.

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Latin America and the Caribbean

The COVID–19 pandemic's effect on the economies of Latin America and the Caribbean (LAC)¹⁵ region was unprecedented in 2020. The real gross domestic product (GDP) contracted by 9.1 percent, making it the “worst recession in the region in a century” (Food and Agriculture Organization of the United Nations (FAO) and World Food Programme (WFP), 2020). A rebound in economic activity is anticipated to sustain 2.9 percent growth in real GDP in 2021 and 3.2 percent growth by 2031 (*table 11*). However, economic growth for LAC will remain below the projections made prior to the global COVID–19 pandemic (USDA, ERS, 2021). The speed of the economic recovery remains uneven across countries—as Bolivia, Dominican Republic, Guatemala, and Honduras experienced less pronounced collapses at the height of the crisis in 2020 than other LAC countries. By contrast, Colombia, Ecuador, El Salvador, Haiti, Jamaica, Nicaragua, and Peru suffered large contractions—and estimated long-term recovery remains limited through 2031.

¹⁵The countries studied include four Central American countries: El Salvador, Guatemala, Honduras, and Nicaragua; three Caribbean countries: the Dominican Republic, Haiti, and Jamaica; and four South American countries: Bolivia, Colombia, Ecuador, and Peru.

Table 11

Inflation adjusted per capita income for the Latin America and the Caribbean region, 2021 and 2031

	2019 (pre- COVID-19)	2021	2031
	Dollars (2015 U.S.)		
Latin America and the Caribbean	5,395	4,936	6,222
Central America and the Caribbean	3,935	3,789	4,831
South America	5,395	5,602	7,041

Source: USDA, Economic Research Service International Macroeconomic Dataset.

To counter the effects of COVID-related restrictions, all countries in LAC—as was the case for various other countries around the globe—implemented several comprehensive policy responses to support households' and businesses' incomes. These fiscal support expenditures have included subsidies, grants, loans, guarantees, and forgone tax revenue. In 2020, the emergency fiscal support granted by all 11 LAC countries amounted to about 5.0 percent of GDP, on average (International Monetary Fund (IMF), 2021). Although these fiscal measures have successfully mitigated some of the COVID-19 impacts on the most vulnerable, the pandemic has exacerbated the structural problems the LAC region has historically suffered from, including narrow fiscal space, high inequality, limited social protection, a high degree of labor informality, and high prevalence of food insecurity.

The current food-security assessment estimates 25.6 percent of the LAC population is food-insecure in 2021, 4.5 percentage points higher than in 2020 (*table 12* and *figure 7*). The estimated prevalence of food insecurity during 2021 ranged from 11.2 percent in the Dominican Republic to 65.2 percent in Haiti. Food-insecurity levels and rates differ across countries in the LAC region due to their populations, economic conditions, and policies. The population of the LAC region in 2021 is estimated at nearly 175 million and is projected to reach to 191 million by 2031. The average population growth rate for LAC countries is projected to decline from 1.1 percent during 2015–2020, to 0.9 percent from 2021 to 2031. Slowing population growth is associated with rising incomes, literacy rates, and life expectancy—all of which tend to lower birth rates.

Table 12

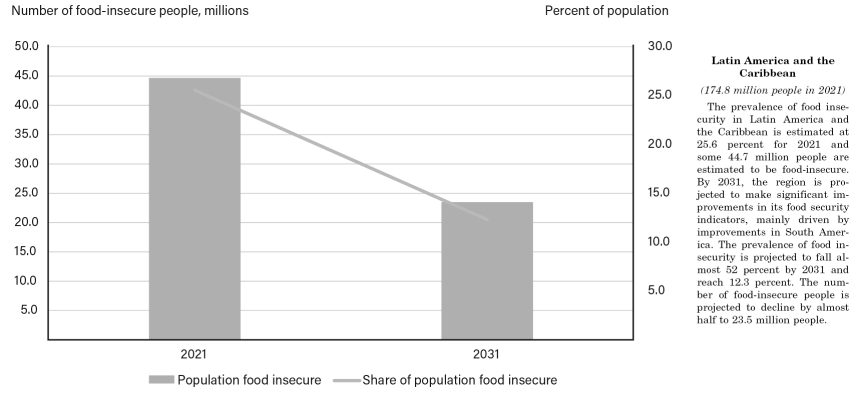
Food security indicators for Latin America and the Caribbean, 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
Million tons					
2021	24.4	37.0	61.4	20.1	41.3
2031	11.7	23.6	35.3	27.1	8.2

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Latin America and the Caribbean indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Latin America and the Caribbean	174.8	191.0	44.7	23.5	25.6	12.3	345	284	2,236	1,152
Central America and the Caribbean	64.2	70.8	20.5	13.6	32.0	19.2	376	315	1,261	833
South America	110.6	120.2	24.2	9.9	21.8	8.3	290	229	975	320

Note: * Measured in grain equivalents.
 Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Figure 7

Latin America and the Caribbean: Change in the number of food-insecure people in 2021, from 2020

Change in the number of food-insecure population



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Across LAC countries, population growth rates vary inversely with per capita income. Colombia, Dominican Republic, and Peru all have relatively higher incomes and are projected to have an annual population growth rate near 0.7 during 2021–2031 (table 12). Lower income countries, including Guatemala (1.4 percent), Bolivia (1.3 percent), Ecuador (one percent), and Nicaragua (0.8 percent) have higher projected annual population growth rates. Population growth rates in Haiti and Honduras, two countries with the lowest income in the LAC region, are projected to average 1.1 percent of growth per year during 2021–2031. In El Salvador, population growth for 2021–2031 is at its lowest level (0.23 percent) because of the country's continued emigration rates. In most all cases, population growth is projected to slow

during 2021–2031, compared to previous decades. The exception is Jamaica, where population is projected to continue to decline.

The COVID–19 pandemic has resulted in an erosion in income levels. LAC’s real income per capita growth for the 2021–2031 period is projected to reach 2.3 percent per year, an improvement over the 0.9 decline in per capita GDP experienced in 2015–2020. Colombia, Dominican Republic, and Peru are all expected to drive much of the aggregate per capita GDP growth in the LAC region. Growth in Colombia and Peru is supported by fiscal spending and exports. On the aggregate for the region, per capita income increases from \$4,936 in 2021 to \$6,222 in 2031 (*table 11*). Despite the positive impact from fiscal packages and other measures implemented to boost economic activity, LAC’s income per capita will remain below pre-COVID–19 levels until 2025, returning to its long-term trend levels through 2031.

The pandemic has dramatically increased food insecurity in the LAC region in 2021, compared to 2020. This situation is reflected in the region’s increased share of the food-insecure people among all four regions in 2021 and the region’s increase in its food-insecure population. In 2021, the LAC region accounts for more than ¼ (25.6 percent) of global food-insecure people, slightly below Asia’s global share (26.2 percent), but nearly double that of North Africa’s (14.5 percent).

In 2021, the number of people in the LAC region estimated to have consumed less than the per capita daily recommended caloric target of 2,100 kcal is 44.7 million (*table 12*). Stricter lockdowns and high levels of informal employment impact economic activity and per-capita incomes. This situation—compounded by the resurgence of inflation—changes the sustained food security gains of past years. As a result of the pandemic, an additional 2.4 million LAC people are estimated to be food-insecure in 2021—which represents about a 6.0 percent increase from the 2020 estimate. Food insecurity in the LAC region is also aggravated by the almost 9.6 million Venezuelans who emigrated within the region—principally to neighboring Colombia (3.3 million), Ecuador (2 million), and Peru (4.3 million)—and are disproportionately affected by unemployment and the lack of access to food safety nets (FAO and WFP, 2020).

Looking ahead, as the LAC economies recover from the COVID–19 induced economic recession, all 11 countries in the region improve their food availability during the next decade. Rising per capita demand for diversified diets and protein support increases in LAC’s food grain demand, which rises from 24.4 million tons in 2021 to 29.4 million tons in 2031 (*table 12*). Demand for grain for other uses (including feed use and seed use) is projected to increase from 21.9 million tons in 2021 to 29 million tons by 2031. The combined grain demand (food and other uses) is projected to increase from 46.3 million tons in 2021 to 58.3 million tons in 2031. As a result of the strong demand growth, the production of grains is expected to increase from an estimate of 20.1 million tons in 2021, to 29.4 million tons in 2031. The projected difference between overall demand and domestic production is anticipated to grow by 2.8 million tons to 29 million tons by 2031.

Under this scenario, on a regional basis, the food gap—the difference between estimated consumption and the nutritional target of 2,100 kcal—is estimated at 345 kcal per capita, per day in 2021. But this figure is projected to decrease to 284 kcal per capita, per day by 2031 (*table 12*).

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Central America and the Caribbean (CAC)

The Dominican Republic has a population of 10.6 million in 2021, which is projected to rise to 11.5 million by 2031 (*table 13*). Results from the food security assessment model indicate that, in 2021, 11.2 percent of the country’s population is estimated to be food-insecure, or less than half the LAC’s regional average of 25.6 percent of food-insecure people. The Dominican Republic is estimated to have 1.2 million food-insecure people in 2021, a number projected to fall to just 0.3 million food-insecure people in 2031. Results in this study indicate that the Dominican Republic has the lowest estimated food gap in the LAC region, with 227 kcal per capita, per day. The daily per capita calorie gap is projected to decline to 179 kcal by 2031.

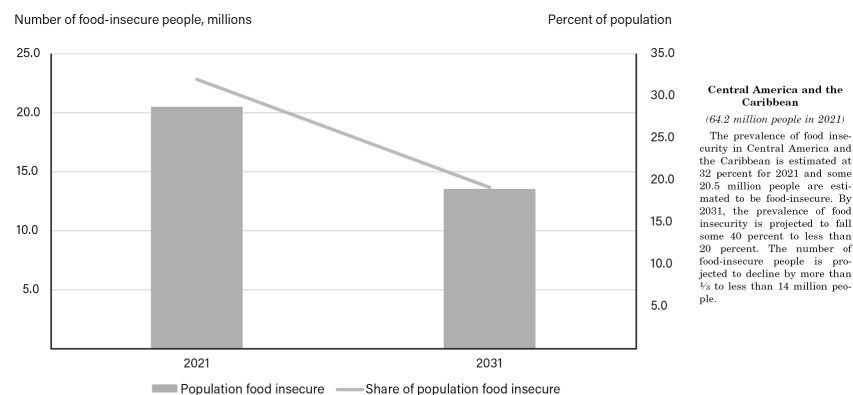
Table 13*Food security indicators for Latin America and the Caribbean, 2021 and 2031*

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
	Million tons				
2021	8.4	13.1	21.5	5.8	15.6
2031	10.1	18.1	28.3	8.0	20.3

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Central America and the Caribbean indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Central America and the Caribbean	64.2	70.8	20.5	13.6	32.0	19.2	376	315	1,261	833
Dominican Republic	10.6	11.5	1.2	0.3	11.2	2.4	227	179	39	7
El Salvador	6.5	6.7	1.5	0.8	22.9	11.4	290	246	49	21
Guatemala	17.4	20.1	5.2	3.0	29.8	15.1	356	297	211	103
Haiti	11.2	12.5	7.3	6.7	65.2	53.7	753	673	722	593
Honduras	9.4	10.4	2.4	1.1	25.9	10.4	341	274	93	33
Jamaica	2.8	2.7	0.4	0.1	15.6	2.8	235	175	13	2
Nicaragua	6.3	6.8	2.5	1.6	39.6	23.6	428	361	134	73

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

The economy of the Dominican Republic is largely reliant on the service and tourism sectors and, as a result, its economy was severely impacted by the COVID-19 pandemic in 2020. After contracting 4.7 percent in 2020, economic activity is projected to recover to 3.3 percent growth in 2021. Annual GDP growth is projected to average 4.2 percent in the next decade, the highest anticipated economic growth in the region. GDP per capita income in the Dominican Republic is also the highest in the region, estimated at \$8,295 in 2021 and is projected to grow to \$11,571 in 2031. Unfavorable weather conditions in the Dominican Republic in 2020 led to a reduction in the area of planted rice—a key component of the Dominican diet—and lower yields, which aggravated the food security situation. However, with improved weather and yields in 2021, rice production and consumption are projected to resume their normal growth rate (FAO, 2020; USDA, FAS, 2021a).

El Salvador, with a total population of 6.5 million, is the only country in the region where the population growth rate is projected to decline between 2021 and 2031 (which reflects emigration rates). In 2021, 22.9 percent of the population is estimated to be food-insecure (*table 13*). However, this number is anticipated to decline by 50.1 percent, to 11.4 percent by 2031. Food consumption levels in El Salvador have worsened since the pandemic, with the number of food-insecure people estimated at 1.5 million in 2021, a seven percent increase from the 2020 estimate. The number of food-insecure people, however, is projected to fall to about 800,000 by 2031. The daily per capita Calorie food gap in El Salvador is projected to fall from 290 kcal in 2021 to 246 kcal by 2031.

Annual GDP per capita growth through the next 10 years is projected to be 1.5 percent, which is an improvement over the 2015–2020 period, when per capita income declined 0.5 percent. GDP per capita in El Salvador in 2021 is estimated at \$3,758 in 2021 and projected to increase to \$4,354 by 2031.

During the COVID–19 pandemic, El Salvador’s economy experienced a decline in export and tourism revenues. However, this decline was compensated with larger flows of family remittances. Moreover, the El Salvadorian Government provided fiscal support to low-income households. Family remittances contributed the most to support incomes and totaled \$4.8 billion in 2020. The torrential rains from hurricanes Eta and Iota affected cereal and bean crops in El Salvador. However, the adverse effects in El Salvador were not as severe as the effects experienced in Nicaragua, Honduras, and Guatemala, where food and commercial crops and livestock productions suffered devastating losses. The reduction in agricultural production—further hindered by the lack of operational credit—led to high food inflation, further aggravating food insecurity (Economic Commission for Latin America and the Caribbean (ECLAC), 2020).

Guatemala is the largest economy and most populous country in the CAC region. With 17.4 million people in 2021, Guatemala’s population is projected to increase by 2.7 million by 2031 (*table 13*). The country’s annual population growth rate is estimated at 1.4 percent between 2021 and 2031, compared to 1.8 percent annual growth during 2015 and 2020. Indigenous people make up more than half of Guatemala’s population and are disproportionately affected by persistent income inequality and poverty (World Bank, 2021). In 2021, 29.8 percent of Guatemala’s population is considered food-insecure, but the prevalence of food insecurity is projected to fall to 15.1 percent by 2031. The number of food-insecure people in Guatemala is estimated to have increased by 2.0 percent from 2020, to 5.2 million people in 2021. The number of food-insecure people, however, is projected to fall to 3 million people by 2031. The daily per capita Calorie food gap in Guatemala is anticipated to decline moderately over the decade, from 356 kcal in 2021 to 297 kcal by 2031.

Although Guatemala is the largest economy in Central America, it is also the fifth poorest economy in the LAC region. Guatemala’s GDP per capita is estimated at \$4,104 in 2021 and projected to increase to \$4,987 by 2031—equivalent to a 2.0 percent annual growth in per capita income over the next decade, compared to the 0.3 percent annual growth in income during the 2015–2020 period. The COVID–19 pandemic impacted the Guatemalan economy considerably, contracting 2.4 percent in 2020. In 2021, Guatemala is projected to experience a 4 percent increase in economic recovery and the county’s longer-term growth is projected at 3.5 percent in 2031 (USDA, ERS, 2021). Prior to the pandemic, Guatemala experienced economic stability and relatively higher real GDP growth rates, compared to neighboring economies. This economic stability was anchored by conservative fiscal management, inflation targeting, and a managed floating exchange rate (World Bank, 2021). The COVID–19 lockdown measures resulted in falling demand, disruptions to supply chains, and lower fiscal revenues. The government has been able to provide fiscal support, to expand social programs for families, and to supplement family remittances.

Agriculture is one of Guatemala’s largest economic sectors, and the participation of multinational companies in the sector ensured less disruption to supply chains during the pandemic. The impact of Hurricanes Eta and Iota, which made landfall in neighboring Nicaragua and caused heavy rainfall, damaged bean and cereal crops, as well as coffee and sugarcane plantations. Although the damage was less extensive than in Nicaragua and Honduras, substantial crop losses aggravated the food insecurity situation, particularly in rural areas of the country (FAO, 2020).

Haiti is estimated to have the highest share of food-insecure people in the LAC region (*table 13*). Since 2019, Haiti has been named among the 10 countries experiencing acute food crises in the world (FAO and WFP, 2020). Of the 11.2 million people in Haiti, 65.2 percent are estimated to be food-insecure in 2021. The prevalence of food insecurity in Haiti is 39.6 percentage points higher than the regional average of 25.6 percent. Over the next 10 years, Haiti is projected to make the least progress

in terms of its food security metrics, despite an anticipated drop in the prevalence of food insecurity to 53.7 percent by 2031.

About 7.3 million people in Haiti are estimated to be food-insecure in 2021 and this figure is projected to decline to 6.7 million by 2031. Haiti also has the highest estimated per capita Calorie food gap in the LAC region, estimated at 753 kcal per capita per day. By 2031, Haiti's food gap is projected to fall 10.6 percent to 673 kcal per capita, per day.

Haiti's GDP per capita in 2021 is estimated at \$761 in 2021 and is projected to increase to \$832 by 2031, equivalent to a 0.9 percent annual growth in per capita income, reversing the 1.8 percent annual decline in income in the 2015–2020 period. Although Haiti produces small quantities of food for domestic consumption, the combination of irregular rains and low agricultural productivity constrain the country's ability to supply a greater share of its own food.

Haiti has been facing challenging macroeconomic conditions since 2019, as real GDP contracted 0.9 percent. The economic recession was further complicated by the COVID–19 pandemic and—in 2020—GDP contracted for a second year in a row, by more than 4.4 percent. Since 2020, the economy has been sustained by an increase in the flow of family remittances (FAO, 2020). Despite dire fiscal conditions, the government was able to provide cash transfers and food assistance to some of the most vulnerable, which partly helped alleviate the food insecurity condition in Haiti.

Honduras—with more than 9.4 million people—is Central America's second most populous country, after Guatemala (*table 13*). In 2021, Honduras is estimated to have 26 percent of its population experiencing food insecurity, which is similar to the LAC regional average. The prevalence of food insecurity in 2031 is projected to fall by 60.0 percent to 10.4 percent, surpassing the regional average reduction of 51.8 percent. About 2.4 million people are estimated to be food-insecure in 2021, which is projected to decline to 1.1 million by 2031. Honduras also has the third highest daily per-capita Calorie food gap in the region, estimated at 341 kcal per capita per day in 2021. By 2031, the food gap in Honduras is projected to fall by 19.6 percent to 274 kcal per capita, per day.

Honduras was the only country among the four Central American countries included in IFSA to register the highest sustained economic growth for the past decade and be above the LAC regional average. The economy of Honduras is projected to sustain an annual 3.7 percent GDP growth in the 2021–2031 period, well above the LAC average of 3.3 percent growth for the region. However, Honduras faces high levels of poverty and inequality, and the COVID–19 pandemic aggravated the situation of the most vulnerable. As a result of the pandemic-related declines in trade, investment, and consumption—further aggravated by a fall in family remittances—real GDP fell 3.7 percent in 2020. In 2021, the economy in Honduras is projected to rebound to 2.5 percent annual GDP growth.

GDP per capita is projected to grow annually by 2.5 percent in the 2021–2031 period, a much higher rate than the 0.9 percent annual growth in GDP per capita in the 2015–2020 period. Honduras was able to authorize new borrowing from the World Bank for \$2.5 billion, equivalent to ten percent of the country's GDP (World Development Indicators (WDI), 2021), to support households and businesses in order to counteract the pandemic's impact. The economy of Honduras is based mostly on agriculture, accounting for about 15.0 percent of the country's GDP (World Bank, 2021). Honduras is a leading exporter of coffee and bananas. In recent years, agricultural diversification has led to increased plantings of sugarcane, horticultural crops, pineapples, palm oil, and aviculture production. In late 2020, Hurricanes Eta and Iota severely affected agricultural production in Honduras, causing substantial crop losses, particularly bean crops, coffee and palm oil plantations, as well as horticulture crops, further aggravating the food security situation in the country.

Jamaica, with 2.8 million people, is the Caribbean and Central America's tenth most populous country. In 2021, Jamaica is estimated to have 15.6 percent of its population experiencing food insecurity, to represent the third least food-insecure country in the LAC region (after Colombia and the Dominican Republic) (*table 13*). The important tourism sector—which contributes about 35.0 percent to GDP income—was significantly impacted by pandemic-related border closures. Economic activity contracted 7.2 percent. However, the contraction was less than what would have been expected, had it not been for Jamaica's strong fiscal position at the beginning of the pandemic, which allowed the economy to provide an additional fiscal stimulus in 2020 (equivalent to 1.2 percent of GDP). As the economy reopens and tourism restarts, the economy is expected to recover in 2021–22 and maintain sustained growth of 2.5 percent through 2031.

Jamaica is expected to make the most progress in its food security status over the next decade. From the estimated 15.6 percent in 2021, the prevalence of food insecurity is projected to decline by 81.9 percent—the highest decline in the region—to 2.8

percent by 2031. The daily per capita Calorie food gap in Jamaica is among the lowest in the world and the second lowest in the LAC region, after the Dominican Republic, estimated at 235 kcal for 2021. By 2031, the food gap is projected to drop by nearly 26 percent to 175 kcal per capita per day, the highest reduction in the LAC region.

Nicaragua—with 6.3 million people—is Central America’s smallest economy and 40 percent of Nicaragua’s population is estimated to be food-insecure in 2021 (*table 13*). The prevalence of food insecurity in 2031 is projected to decline 40.4 percent, to 24 percent. About 2.5 million people are estimated to be food-insecure in 2021, which is projected to decline to 1.6 million people by 2031. In addition, Nicaragua has the highest daily Calorie per capita food gap in the region. With the Calorie food deficit of 428 kcal per capita per day in 2021. By 2031, Nicaragua’s food gap is projected to fall 15.7 percent to 361 kcal per capita per day.

The COVID–19 pandemic crisis impacted both GDP per capita and remittance inflows, significantly reduced trade and tourism, and disrupted food distribution. Nicaragua’s economy, which has been experiencing a recession since 2018, registered an 8.2 percent decline in 2020. Nicaragua’s economy is projected to recover in 2021, with GDP growth of 3.9 percent. GDP per capita is projected to grow annually by 2.2 percent in the 2021–2031 period, a recovery from the 2.5 percent decline in per-capita income in the 2015–2020 period.

Nicaragua’s economy is primarily driven by the agricultural sector. The landfall of Hurricanes Eta and Iota in late 2020, resulted in flooding and landslides that were responsible for severe damage to an estimated 80.0 percent of standing crops and Nicaragua’s agricultural infrastructure. Farmers reported significant losses of food grains and legumes, coffee, sugarcane, fruits, vegetables, and grazing areas for livestock. These losses threaten the country’s food security situation and the prospects for exports. Both hurricanes also destroyed homes, roads, bridges, and communications infrastructure.

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South America (SA)

Bolivia is the second highest food-insecure country in the LAC region—after Haiti—and the most food-insecure among the South American countries considered in this assessment (*table 14*). Bolivia was also the country in the LAC region most affected by the pandemic as measured by the high prevalence of food insecurity in 2021, which was estimated at 45.0 percent. The South American countries saw an increase of 1.2 million food-insecure people in 2021, compared to a year earlier. The prevalence of food insecurity in Bolivia is projected to decline to 19.7 percent by 2031, 25.3 percentage points lower than in 2021, the sharpest decline in the South American sub-region. The daily per capita Calorie food gap is projected to fall from 343 kcal in 2021 to 259 kcal by 2031.

Table 14
Food security indicators for the South America sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	16.0	22.0	38.0	14.3	23.7

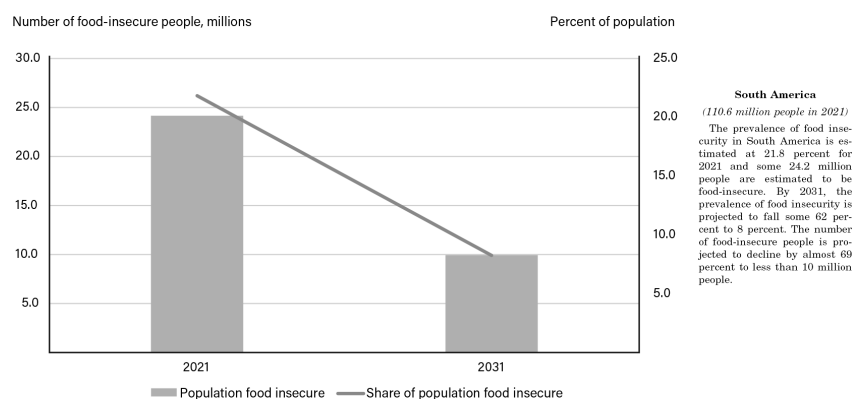
Table 14—Continued
Food security indicators for the South America sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
2031	19.2	29.7	48.9	21.3	27.5

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

South America indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total) *	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
South America	110.6	120.2	24.2	9.9	21.8	8.3	290	229	975	320
Bolivia	11.8	13.4	5.3	2.6	45.0	19.7	343	259	239	90
Colombia	49.5	53.3	6.3	1.6	12.6	3.0	260	205	235	47
Ecuador	17.1	18.9	4.7	2.4	27.7	12.8	264	216	175	73
Peru	32.2	34.6	7.8	3.3	24.4	9.5	295	237	326	110

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

The COVID-19 pandemic affected both GDP per capita and remittances. However, with an anticipated economic recovery GDP per capita is projected to grow annually by 1.9 percent during the 2021–2031 period, a much higher rate than the 0.2 percent annual growth in GDP per capita in the 2015–2020 period. Bolivia is one of the few countries in the region able to sharply increase its fiscal expenditures to counteract the effects of the pandemic, which supported sustained economic activity. While food prices remained stable during most of 2020, emerging food supply problems in 2021 are projected to lead to rising food prices in the longer term. As a result, food prices are projected to increase rapidly (5.5 percent annually) over the 2021–2031 period.

Colombia is the most populous country of the LAC countries covered in IFSA, with 49.5 million people in 2021 (table 14). By 2031, the country is projected to gain an additional 3.7 million people to reach a population of 53.3 million people. A large share of the projected population increase is driven by more than 3 million migrants from Venezuela who were granted residence status in 2021. In 2021, Colombia accounts for the third highest number of food-insecure people (6.3 million) in the region, and the prevalence of food insecurity is estimated at 12.6 percent, significantly below the regional average for LAC of 25.6 percent. By 2031, Colombia is projected

to have 3.0 percent of its population considered food-insecure. The daily per capita Calorie food gap is projected to fall from 260 kcal in 2021 to 205 kcal by 2031.

Although Colombia has experienced many economic crises and the country's history is punctuated by economic volatility, the recession arising from the COVID-19 pandemic and subsequent lockdowns has been labeled the country's worst in decades. As a result, in 2020, the pandemic-related recession shrank Colombia's GDP by 9.5 percent. Ample fiscal measures (geared to support the most vulnerable households and businesses) were successful in softening the impact of the drastic reduction in economic activity. The Colombian economy is projected to recover in 2021, with GDP growth anticipated to reach 2.8 percent. This growth rate is projected to be generated from an expansion in public spending, a faster pace of economic activity, and reduced unemployment. Although oil prices are projected to remain below pre-pandemic levels, after 2021, export revenues are anticipated to be boosted by a recovery in external markets, higher projected oil prices, and a heightened import demand from major trading partners. Colombia's economy is estimated to sustain 3.2 percent real GDP annual growth over the next decade (USDA, ERS, 2021).

Colombia is a significant agricultural producer and exporter. Unlike other sectors, the agricultural sector was less impacted by the pandemic and had recorded positive growth for 2020. Although food production faced fewer operational restrictions, the marketing and distribution of food was significantly impaired by extended lockdowns to contain the pandemic. A large depreciation of Colombia's currency and the increased price of coffee—the country's principal export—boosted export revenues. Colombia's daily per capita Calorie food gap is projected to substantially shrink from 260 kcal in 2021 to 205 kcal in 2031, as the country continues to improve food production and distribution.

Ecuador is the third most populous country among the South American countries included in IFSA, with 28 percent of its population (17 million people) estimated to be food-insecure in 2021 (*table 14*). By 2031, Ecuador is expected to see a reduction of 53.7 percent in food insecurity prevalence, to nearly 12.8 percent of the population—which is projected to be driven by anticipated increases in GDP per capita, higher export revenues, and increased food production. Agriculture has traditionally employed a large proportion of the population in the production of subsistence food crops—including food grains, potatoes, beans, and cassava. Commercial production of tropical crops (such as coffee, cacao, and bananas) provide Ecuador with foreign exchange to buy rice and wheat imports. Ecuador has a daily per capita Calorie food gap of 264 kcal, which is projected to see a moderate decline to 216 kcal by 2031.

Ecuador derives an important share of its GDP from crude oil exports. The recent slump in oil and energy prices have considerably affected Ecuador's economy—as was the case for other countries like Colombia and Bolivia—who also depend on energy exports. In all three countries, negative terms-of-trade for energy products hampered economic growth in 2020. Ecuador (which was facing economic challenges before the pandemic and with less room to increase fiscal expenditures), suffered large contractions in economic activity compared to other countries in the South American region. Over the next 10 years (2021–31), per capita GDP is projected to grow 1.4 percent a year, the second slowest growth rate in the LAC region and comparable to Haiti.

Peru is classified by the World Bank as a middle-income country. Agricultural production in Peru has been hindered in the near term by low market prices, which has resulted in reduced 2021 plantings (FAO, 2021). However, with an anticipated increase in production over the medium term, food insecurity is estimated to drop significantly—also reducing the number of food-insecure people from 7.8 million in 2021 to just over 3.3 million in 2031 (*table 14*). With a total population of 32 million in 2021, Peru is estimated to have 24 percent of its population considered food-insecure in 2021. By 2031, the prevalence of food insecurity will drop by 60.9 percent to 9.5 percent. The daily per capita Calorie food gap is projected to fall from 295 kcal in 2021 to 237 kcal by 2031.

In the LAC region, Peru experienced the largest economic decline by the COVID-19 induced recession. After contracting more than 14.0 percent during 2020, GDP growth is projected to recover to 3.5 percent in 2021, with a sustained annual growth of 3.1 percent through 2031. As a result, GDP per capita is projected to annually increase 2.5 percent during the 2021–2031 period, compared to a 1.6 percent decline in the 2015–2020 period. Peru had better economic fundamentals than all other countries in the LAC region, which allowed for an unprecedented expansion of fiscal and monetary transfers to counter the effects of strict lockdowns, which lasted for several months and resulted in massive job losses. The depreciation of the currency also helped increase foreign exchange revenues from agricultural exports.

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Asia

In 2021, food security of the Asian countries covered by the assessment is anticipated to deteriorate further from 2020. In the Asia region, the main driver for the estimated increase in food insecurity is incomes that remain below their pre-pandemic levels (*table 15*). The COVID-19 pandemic caused significant income losses and reduced remittances, resulting in the deterioration of food-security for a large segment of the population (Food and Agriculture Organization of the United Nations (FAO), 2020). In 2020, GDP in Asia declined by more than 5.0 percent and the decline in per capita income was more than double at 10.6 percent (Baquedano, *et al.*, 2021). While robust growth for GDP per capita (4.0 percent) in 2021 is anticipated for most countries in the region, in absolute terms income will be 2.5 percent lower than in 2019 for most countries.

Table 15

Inflation adjusted per capita income for the Asia region, 2021 and 2031

	2019 (pre-COVID-19)	2021	2031
	Dollars (2015 U.S.)		
Asia	2,279	2,221	3,400
Commonwealth of Independent States	3,591	3,502	4,584
Central and Southern Asia	1,923	1,861	2,914
Other Asia	1,092	1,068	1,233
South East Asia	3,516	3,484	5,304

Source: USDA, Economic Research Service International Macroeconomic Dataset.

In 2021, the Asia region is estimated to have 647 million people (26.4 percent of its population) considered food-insecure, the most of any region (*table 16*). The Central and South Asia (CSA) sub-region, which includes India, accounts for 78.6 percent of the food-insecure population in the Asia region. In 2021, the number of food-insecure people within the Asia region is estimated to have increased by 48.0 percent from 2020, 16 a year that also saw a sharp increase in the region's food-insecurity metrics after the onset of the COVID-19 pandemic (*figure 8*).

Table 16

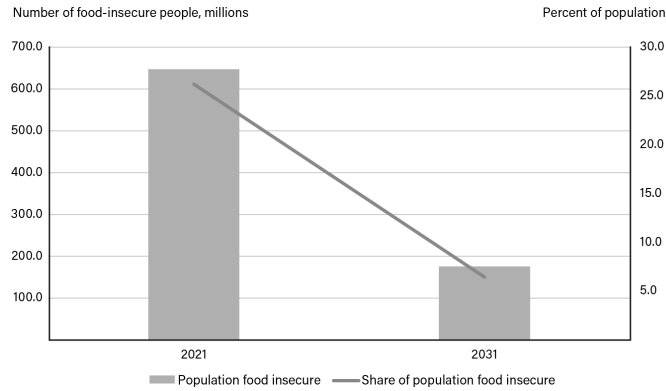
Food security indicators for Asia region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
	Million tons				
2021	481.0	163.4	644.4	546.5	97.9
2031	618.2	208.8	827.0	668.6	158.4

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Asia indicators of food insecurity



Asia
(4.9 billion people in 2021)
In 2021, ERS estimates that 647 million people are food-insecure in Asia, mainly reflecting the large numbers in the Central and Southern Asia sub-region, which includes India. The prevalence of food insecurity in Asia is estimated at 26.2 percent. By 2031, ERS projects that the prevalence of food insecurity will decline by $\frac{3}{4}$ to 6.4 percent. The number of food-insecure people in 2031 is projected to be 176 million, 73 percent less than 2021.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions	Millions	Millions	Millions	Percent	Percent	Kilo-calories/day	Kilo-calories/day	1,000 Metric tons	1,000 Metric tons
Asia	2,470.8	2,731.4	647.3	175.7	26.2	6.4	304	231	28,285	6,992
Commonwealth of Independent States	73.0	77.3	10.1	4.7	13.8	6.1	244	187	414	202
Central and Southern Asia	1,834.1	2,039.9	508.9	107.3	27.7	5.3	315	229	20,889	3,505
Other Asia	59.6	66.3	42.8	39.0	71.9	58.7	457	375	3,109	2,372
South East Asia	504.1	547.7	85.5	24.7	17.0	4.5	296	220	3,873	912

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

Figure 8

Asia, change in the number of food-insecure people from 2020 to 2021
Change in the number of food-insecure population



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031—driven by an expectation for sustained economic growth (5.4 percent annually) coupled with low population growth rates (1.0 percent annually)—the Asia region is projected to see a 75.4 percent reduction in its prevalence of food insecurity to 6.4 percent, and the number of food-insecure people is anticipated to decline to less than 176 million (*table 16*). Moreover, the per capita daily Calorie food gap—the difference between estimated consumption and a nutritional target of 2,100 kcal—is projected to decline by 23.9 percent, from 304 kcal in 2021 to 231 kcal in 2031. Most of the food security improvements over the next decade are driven by trends in the CSA sub-region, where the number of food-insecure people is projected to decline by 78.9 percent over the next decade, to less than 108 million. Moreover, the CSA's prevalence of food insecurity is anticipated to decline by 81.0 percent to 5.3 percent. By contrast, Other Asia (OA), which includes North Korea and Yemen, is projected to make little progress in its food insecurity metrics over the next decade. By 2031, OA is anticipated to reduce the prevalence of food insecurity by 18.3 percent (to 58.7 percent of the total population) and the number of food-insecure people by 9.0 percent (to less than 43 million people).

Because of productivity gains for most countries, Asia has experienced strong growth in grain output. In 2020, Asia recorded a 1.6 percent growth in grain production, and early prospects are favorable for 2021 (FAO, 2020). Grain production over the next decade is projected to annually grow by 2.0 percent (*table 16*). By contrast, the total demand for grains—both for food and other uses, including feed—will grow at a rate of 2.5 percent a year. The anticipated stronger growth in total grain demand will increase the region's implied additional supply requirements (accounting for both the need of stocks and imports) by almost 62.0 percent over the next decade.

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Commonwealth of Independent States (CIS)

In 2021, the CIS is estimated to be the most food-secure sub-region in Asia. The number of food-insecure people is estimated at 10.1 million, or 13.8 percent of the CIS population (*table 17*). Relative to 2020, it is estimated that the CIS sub-region may see an increase of 27.6 percent in the number of food-insecure people. The increase (in the estimated number of food-insecure people) mainly reflects incomes that are 2.5 percent lower than their 2019 levels. Tajikistan accounts for close to half of the population estimated to be food-insecure in the CIS sub-region. Tajikistan is also estimated to have the highest rate of food insecurity (53.6 percent of the population) in the sub-region. The pandemic-related global economic slowdown resulted in a strong decline in prices for the sub-region's main commodity exports—particularly energy products—and resulted in a decline of 4.0 percent in GDP in 2020. Although economic activity is expected to recover in 2021, the effects of the COVID-19 pandemic will linger, with both GDP and GDP per capita anticipated to remain below the 2019 levels.

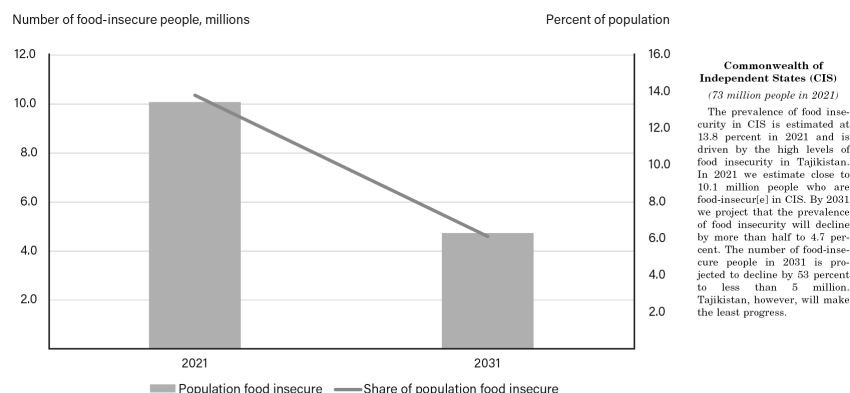
Table 17

Food security indicators for the Commonwealth of Independent States sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	13.5	23.8	37.3	21.0	16.3
2031	16.2	31.8	48.1	33.0	15.1

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Commonwealth of Independent States indicators of food insecurity

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Commonwealth of Independent States	73.0	77.3	10.1	4.7	13.8	6.1	244	187	414	202
Armenia	3.0	2.9	0.1	0.0	4.8	0.2	189	137	3	0
Azerbaijan	10.3	10.8	0.4	0.1	4.3	0.6	170	135	9	1
Georgia	4.9	4.9	0.5	0.1	10.8	1.7	234	178	16	2
Kyrgyzstan	6.0	6.5	1.1	0.4	18.3	5.6	263	209	37	10
Moldova	3.3	2.9	0.8	0.04	24.3	1.2	243	146	26	1
Tajikistan	9.0	10.2	4.8	3.9	53.6	38.2	442	378	265	183
Turkmenistan	5.6	6.1	0.4	0.1	7.6	1.0	212	162	12	1
Uzbekistan	30.8	33.0	1.8	0.2	5.9	0.7	195	150	46	4

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031, the prevalence of food insecurity (6.1 percent of the population) and the number of food-insecure people (4.7 million) in the CIS sub-region is projected to decline by more than half (*table 17*). The anticipated improvement in the sub-region's food security metrics over the decade are linked to a projected acceleration in income growth. During the 2021–2031 period, GDP per capita is projected to grow at an annual rate of 4.6 percent, almost double the rate of the 2015–2020 period. By 2031, the per capita daily Calorie food gap is projected to decline by 23.3 percent, from 244 kcal in 2021 to 187 kcal in 2031. However, relative to the sub-regional food security trends over the coming decade, Tajikistan is anticipated to make the least progress in absolute terms (*i.e.*, number of food-insecure people) and relative terms (*i.e.*, prevalence of food insecurity). Over the coming decade, Tajikistan's population growth rate (1.3 percent a year) is projected to be more than double the CIS average (0.6 percent a year), resulting in GDP per capita growth that is less than half the regional average—1.2 percent a year for Tajikistan, *versus* 2.7 percent a year for the CIS sub-region).

The CIS sub-region is a large producer and exporter of grains, particularly wheat. By 2031, the sub-region is projected to make productivity gains, with grain output growing 4.6 percent a year (*table 17*). Although most of the CIS sub-region's future demand growth for grains is projected to come from other uses (including feed), the anticipated growth in output far exceeds the annual growth of 2.6 percent in total grain demand. And while the sub-region is not anticipated to be self-sufficient in grain production by 2031, the implied additional supply requirement—which includes stocks and imports—will be lower than in 2021.

Central and Southern Asia (CSA)

The CSA sub-region accounts for 47 percent of the total population of the Asia region in IFSA, as it includes India. Because of its population size, India tends to distinctly influence food-insecurity trends in the Asia region. In 2021, it is estimated that the CSA will have a larger population of food-insecure people than the Sub-Saharan Africa (SSA) region, with the current estimate for 2021 reaching almost 509 million people who are food-insecure (*table 18*). India is estimated to account for 68 percent of the food-insecure population in 2021 in the sub-region. By contrast, Afghanistan has the highest estimated prevalence of food insecurity in 2021 in CSA. Almost 59 percent of Afghanistan's population is estimated to be unable to meet the daily Calorie requirement of 2,100 kcal. Sri Lanka is estimated to be the most food-secure country in the CSA sub-region in 2021. Because of the lingering effects of the COVID–19 pandemic on income levels and economic activity, the CSA sub-region is estimated to have 58 percent more people considered food-insecure in 2021 than in 2020. Like the rest of the world, the CSA saw a sharp decline in GDP as a result of the global COVID–19 pandemic, with economic growth declining by an average 5.9 percent at a sub-regional level and by 6.9 percent in India (Baquedano, *et al.*, 2021). While strong economic growth is estimated in 2021 for the CSA sub-region (5.4 percent), in absolute terms both GDP and GDP per capita will remain below the 2018–2020 trend for most countries in the sub-region.

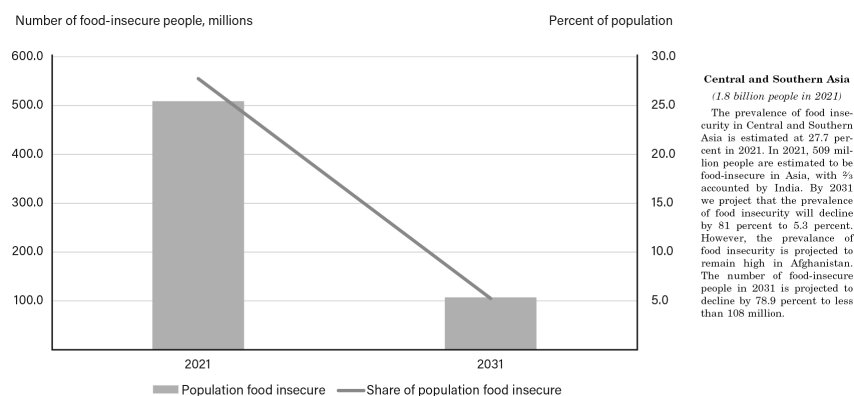
Table 18*Food security indicators for the Central and Southern Asia sub-region, 2021 and 2031*

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	334.6	79.1	413.7	394.8	18.9
2031	440.4	109.3	549.7	468.5	81.2

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Central and Southern Asia indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total) *	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Central and Southern Asia	1,834.1	2,039.9	508.9	107.3	27.7	5.3	315	229	20,889	3,505
Afghanistan	37.5	46.6	22.1	18.1	58.9	38.8	397	322	1,044	692
Bangladesh	164.2	178.3	42.1	10.5	25.7	5.9	300	218	1,856	336
India	1,340.5	1,473.0	345.4	32.1	25.8	2.2	289	183	13,400	789
Nepal	30.6	32.6	4.2	0.1	13.6	0.3	255	157	150	2
Pakistan	238.3	285.2	90.7	45.6	38.1	16.0	389	301	4,268	1,659
Sri Lanka	23.0	24.2	4.5	1.0	19.4	4.0	258	191	171	28

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031, the prevalence of food insecurity in the CSA sub-region is projected to decline by about 81 percent from 2021 to 5.3 percent (table 18). The improvement in food security is largely driven by an anticipated stronger recovery in GDP per capita growth after 2021, slower population growth, and stability in food prices. In the CSA sub-region, Bangladesh, India, and Pakistan are projected to account for most of the improvement in the food security metrics by 2031. By contrast Afghanistan—relative to its CSA peers—is anticipated to make the least progress over the next decade. By 2031, CSA's food-insecure population is projected to decline by 78.9 percent to just over 107 million people. Pakistan, India, and Afghanistan are projected to account for most of the food-insecure people in 2031 in the region. However, Afghanistan is projected to have the highest prevalence of food insecurity in the coming decade. The daily per capita Calorie food gap in CSA—defined as the difference between estimated consumption and the nutritional target of 2,100 kcal—is projected to decline by 27.3 percent, from 315 kcal in 2021 to 229 kcal in 2031.

Grain demand over the next decade in CSA is projected to grow at a faster pace (2.9 percent a year) than production (1.7 percent a year) (*table 18*). Between 2021 and 2031, most of the growth in grain demand is projected to come from demand for other grain use, including feed. The demand for other grain use is projected to grow at a rate of 3.3 percent a year, 0.5 percentage points higher than the growth for food grain demand over the same period. In absolute terms, the demand for food (440 million tons) will be 4 times greater in 2031 than the demand for other grain use (109 million tons). This increased demand will require a significant growth in the sub-region's implied additional supply requirements.

India, as the largest country in the CSA sub-region of all countries included in IFSA, plays a major role in shaping the Asia's food-security indicators. The COVID-19 pandemic led to the worst economic slump in 4 decades for India (World Food Programme (WFP), 2020). The pandemic is expected to revert poverty levels in India to their 2016 estimate, with the poverty rate reaching 10.4 percent (World Bank, 2020). Per capita GDP for 2021 is estimated at \$2,009, roughly 3.0 percent below its 2019 level. As a result of the estimated macroeconomic trends, 25.8 percent of the population (345.4 million) is estimated to be food-insecure in 2021.

Despite the pandemic-induced decline in India's GDP growth in 2020 (–6.9 percent), the country's GDP per capita is projected to grow at an annual rate of 4.9 percent between 2021 and 2031. The anticipated higher income prospects are projected to result in a marked improvement in the country's food-security metrics. The number of food-insecure people in India is projected to decrease to 32.1 million by the year 2031, or 2.2 percent of India's population. The per capita daily Calorie food gap is projected to decline by 36.6 percent, from 289 kcal in 2021 to 183 kcal in 2031.

Afghanistan continues to be one of the most food-insecure countries in IFSA. The COVID-19 pandemic, coupled with an intensification of the armed conflict that began in 2001, has resulted in at least 3.4 million people being considered in an emergency acute food insecurity¹⁷ situation (Global Network Against Food Crises (GNAFC), 2020). Protracted armed conflict and generally deteriorating macro-economic conditions, coupled with increasing food prices, will continue to drive food insecurity in Afghanistan in 2021 (FAO, 2020; GNAFC, 2020). In 2021, more than 22 million people are estimated to be considered food-insecure, representing 58.9 percent of the Afghan population (*table 14*). Afghanistan is projected to make the least progress in its food security metrics in the CSA sub-region. By 2031, the prevalence of food insecurity is projected to decline by 34 percent to 38.8 percent of Afghanistan's population (*table 18*). By 2031, the total number of food-insecure people in Afghanistan is expected to decline by 18.2 percent to 18.1 million, the lowest decline of any CSA country. The ability of the food-insecure population to meet its daily per capita Calorie requirement is projected to improve by 2031, as the per capita food gap declines from 397 kcal in 2021 to 322 kcal in 2031.

Bangladesh has the third largest population in the CSA sub-region. Bangladesh's economy has been significantly impacted by the COVID-19 pandemic, as the economy is highly dependent on remittances from migrants residing abroad and a main exporter of garments. According to estimates compiled by GNAFC (2020), remittances are estimated to have declined some 27.8 percent in 2020, as migrants returned to Bangladesh or the economies that hosted them also saw pandemic-induced economic downturns. Of more concern to the country is the garment industry—which is both a source of export revenue and of employment for low-skilled workers. Some early estimates indicate a loss in revenue of at least \$3 billion for the garment industry (GNAFC, 2020). Bangladesh was estimated to experience a GDP growth of less than one percent in 2020 (Baquedano, *et al.*, 2021). Its GDP is predicted to decline almost 2.7 percent in 2021 and GDP per capita will likely remain 3.6 percent below its 2019 level. The weakened macroeconomic environment is anticipated to further affect the country's food-security metrics. In 2021, the prevalence of food insecurity is estimated to be 25.7 percent and the total food-insecure population is estimated to reach 42 million people. Driven by an improvement of economic growth and incomes by 2031, the prevalence of food insecurity is projected to decline by 77.1 percent to 5.9 percent of the population. By 2031, the number of food-insecure people in Bangladesh is projected to be 10.5 million, which is 75.1 percent lower than at the beginning of the decade. The intensity of food insecurity, indicated by the daily per capita Calorie food gap, is projected to decline by 27.1 percent, from 300 kcal in 2021 to 218 kcal in 2031.

¹⁷ According to IPC Global Partners (2019) an acute food insecurity situation identifies areas or populations with food deprivation that threatens livelihoods, regardless of the causes, context, or duration.

Pakistan is projected to be the second most food-insecure country in the CSA sub-region. Pakistan—like the other countries in the CSA sub-region—has been severely impacted by the COVID–19 pandemic. In addition, even though floods in 2020 did not cause significant food shortages, they did put upward pressure on local food prices (FAO, 2020). Moreover, an estimated sharp decline in remittances (26.8 percent) has severely affected incomes of vulnerable populations (GNAFC, 2020). Baquedano, *et al.* (2021) reported that Pakistan’s economy shrank by almost 2.4 percent in 2020. Even though GDP is anticipated to grow almost by 2.1 percent in 2021, GDP per capita is anticipated to remain 4.3 percent below its 2019 level. The prevalence of food insecurity in the country is estimated at 38.1 percent of the population in 2021, whereas the food-insecure population in Pakistan is estimated to be 90.7 million (*table 18*). From 2021 to 2031, GDP per capita is projected to grow faster (2.5 percent a year) than population numbers (1.8 percent a year). The projected steady income growth, coupled with anticipated price stability over the next decade, is expected to result in a sharp decline in the prevalence of food insecurity. In 2031, the share of the population considered food-insecure is anticipated to be 16.0 percent, a decline of 58.0 percent from 2021 (*table 18*). The number of food-insecure people in 2031 is projected at 45.6 million, a 49.7 percent decline from the 2021 estimate. The intensity of food insecurity, indicated by the daily per capita Calorie food-gap, is projected to decline by 22.7 percent, as the food gap changes from 389 kcal in 2021 to 301 kcal in 2031.

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Other Asia (OA)

The Other Asia sub-region is estimated to be the most food-insecure of any sub-region in the assessment, as it includes both Yemen and North Korea. In 2021, it is estimated that almost 72 percent of the almost 60 million people in OA are food-insecure (*table 19*). Yemen is estimated to account for 60.2 percent of the food-insecure population in OA in 2021. Continued conflict—coupled with the effects of the COVID–19 pandemic on Yemen’s economy—are expected to further deteriorate per capita income in 2021, putting pressure on Yemen’s food security. The Democratic People’s Republic of Korea (DPRK) is estimated to account for 38.2 percent of the food-insecure population in the OA sub-region.

Table 19

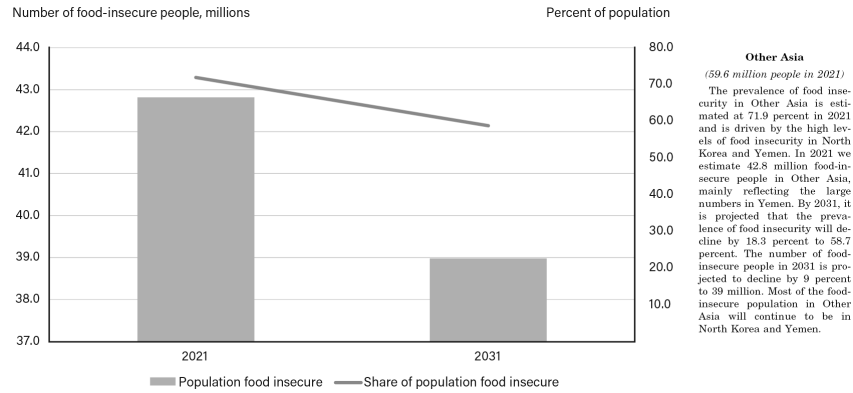
Food security indicators for the Other Asia sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand*	Total grain demand	Grain production	Implied additional supply required**
Million tons					
2021	9.6	14.9	24.5	16.5	7.9
2031	11.7	23.6	35.3	27.1	8.2

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

Other Asia indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total) ^a	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Other Asia	59.6	66.3	42.8	39.0	71.9	58.7	457	375	3,109	2,372
Korea, Democratic People's Rep. of	25.9	26.7	16.3	14.0	63.1	52.3	446	397	1,041	792
Mongolia	3.2	3.4	0.7	0.2	21.6	5.4	295	223	25	5
Yemen	30.5	36.2	25.8	24.8	84.6	68.5	631	505	2,043	1,575

Note: ^a Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

By 2031, the sub-region is projected to see moderate income growth, helping improve the OA's food security metrics. The prevalence of food insecurity in OA is projected to decrease by 18.3 percent by 2031 (*table 19*). However, the prevalence of food insecurity is projected to remain high at the end of the decade at 58.7 percent. These results largely reflect trends in Yemen, as a greater improvement is anticipated in DPRK and Mongolia. The number of food-insecure people in the OA sub-region is projected to decline by 9.0 percent in 2031 to 39 million. The anticipated moderate decline in the number of food-insecure people over the next decade mainly reflects trends in DPRK. However, by 2031, the number of food-insecure people in both DPRK and Yemen is projected to remain close to their 2021 levels. By 2031, the daily per capita Calorie food gap for OA is projected to decline by almost 18.0 percent, from 457 kcal in 2021 to 375 kcal in 2031.

Yemen—with an estimated 25.8 million food-insecure people and a prevalence of food insecurity of 84.6 percent in 2021—is the most food-insecure country in the OA sub-region (*table 19*). Continued and intensified civil conflict has only compounded the effects of the COVID-19 pandemic and increased humanitarian assistance needs within the country (GNAFC, 2020). According to GNAFC (2020), at least 3.2 million people in Yemen are in acute food insecurity crisis.¹⁸ In 2020, the dual shock from the COVID-19 pandemic and the ongoing armed conflict reduced Yemen's GDP by an estimated 12.3 percent at the macro level (Baquedano, *et al.*, 2021). A marginal increase in GDP growth (1.5 percent) is anticipated for 2021. However, in absolute terms, GDP is estimated to be 24.0 percent below the 2018–2020 average. Over the next decade, if current trends continue, modest progress is expected in the country's food-security metrics. By 2031, the prevalence of food insecurity is projected to decline by 19.0 percent to 68.5 percent. In absolute terms, the number of food-insecure people is anticipated to decline by 3.7 percent to 24.8 million. By 2031, the daily

¹⁸ According to IPC Global Partners (2019) an acute food insecurity situation identifies areas and populations with food deprivation that threatens livelihoods, regardless of the causes, context or duration.

per capita Calorie food gap is projected to improve by 19.9 percent, declining from 631 kcal in 2021 to 505 kcal in 2031.

In the Democratic People's Republic of Korea (DPRK), large numbers of people have low levels of food consumption and poor dietary diversity (FAO, 2020). The economic constraints, exacerbated by the impact of the COVID-19 pandemic, have increased the vulnerability to food insecurity of the local population (FAO, 2020). North Korean economic growth estimates for 2021 point to a modest 3.7 percent recovery of GDP. However, DPRK's food insecurity indicators are estimated to be high for 2021. The prevalence of food insecurity for 2021 is estimated at 63.1 percent of the population and the estimate for the number of food-insecure people is projected to reach 16.3 million. By 2031, projections for DPRK point to modest improvements in the country's food-security metrics. The improvements in the DPRK's food-security prospects over the next decade are mainly driven by an expectation that GDP growth per capita (1.4 percent) exceeds population growth (1.1 percent). By 2031, the prevalence of food insecurity is projected to decline by 17.2 percent, but more than half of the population will continue to be considered food-insecure. In absolute terms, the number of food-insecure people is projected to decline by 14.5 percent to 14 million. The daily per capita Calorie food gap is projected to decline by 10.9 percent, from 446 kcal in 2021 to 397 kcal in 2031.

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Southeast Asia (SEA)

South East Asia (SEA) is estimated to be the second most food-secure sub-region in Asia, with an average prevalence of food insecurity of 17.0 percent and less than 86 million people considered food-insecure in 2021 (*table 20*). Almost half of the food-insecure population in SEA is located in Indonesia (42 million), which represents 53.4 percent of the sub-region's population. However, the most food-insecure country in the sub-region is Laos, which has the highest estimated prevalence of food insecurity in 2021. GDP per capita in the sub-region is expected to recover in 2021, growing 3.6 percent from 2020 and almost on par with 2019 levels. However, Indonesia and the Philippines are the only two countries where incomes in 2021 are estimated to remain below their 2019 levels.

Table 20

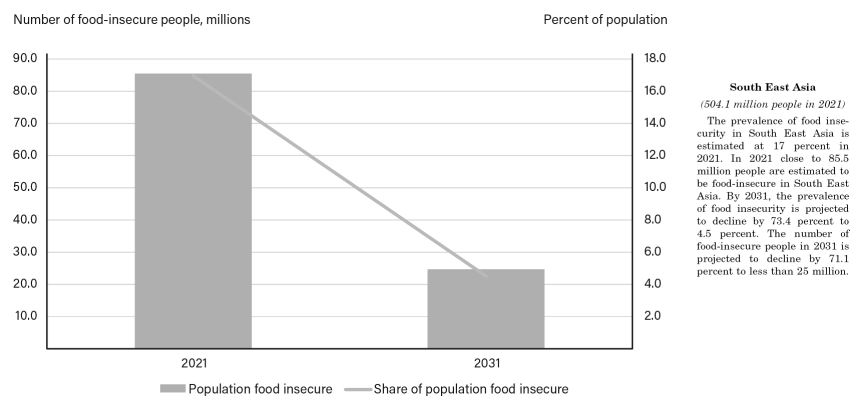
Food security indicators for the South East Asia sub-region, 2021 and 2031

Year	Food grain demand	Other grain demand *	Total grain demand	Grain production	Implied additional supply required **
Million tons					
2021	123.2	53.5	176.7	114.2	62.5
2031	149.8	62.5	212.3	140.1	72.3

Notes: *Other grain demand includes seed, feed, waste, and processing. **The gap between grain demand and domestic grain production.

Source: USDA, Economic Research Service, based on results from the International Food Security Assessment model.

South East Asia indicators of food insecurity



Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
South East Asia	504.1	547.7	85.5	24.7	17.0	4.5	296	220	3,873	912
Cambodia	17.2	19.2	3.6	0.6	20.8	3.0	292	205	159	18
Indonesia	269.1	286.6	42.2	10.6	15.7	3.7	281	218	1,765	341
Laos	7.6	8.6	2.3	0.6	30.5	6.7	294	207	110	19
Philippines	110.8	127.3	27.7	12.1	25.0	9.5	347	278	1,454	506
Viet Nam	99.5	106.0	9.7	0.9	9.7	0.9	263	190	384	27

Note: * Measured in grain equivalents.

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

For the SEA sub-region's growth rate of GDP per capita over the next decade is projected to be 4.3 percent a year. By contrast, population growth is anticipated to be much lower, averaging less than 1.0 percent a year from 2021 to 2031. As a result of the anticipated robust income growth in SEA, the prevalence of food insecurity is projected to decline by 73.4 percent to 4.5 percent of the population (*table 20*). The number of food-insecure people is also projected to decline sharply (by 71.1 percent) to less than 25 million. By 2031, the daily per capita Calorie food gap is projected to decline by 25.7 percent, from 296 kcal in 2021 to 220 kcal in 2031.

In the Laos People's Democratic Republic (LAO), a reduction in remittances in 2020 from migrants returning from Thailand—due to the COVID-19 pandemic—is likely to severely affect incomes and livelihoods of the most vulnerable populations (GNAFC, 2020). Moreover, in northern parts of the country, cereal production shortfalls (for the second consecutive year) have limited the availability of food for households' own consumption and have reduced income from crop sales, further constraining access to food (Food and Agriculture Organization of the United Nations Global Information Early Warning Systems (FAO GIEWS), 2020). It is estimated that almost 31 percent of the LAO population (2.3 million) is considered food-insecure in 2021 (*table 20*). By 2031, LAO's GDP per capita is projected to grow (3.6 percent a year) at a greater pace than population growth (1.3 percent a year). As a result, the prevalence of food insecurity is projected to decline by 77.9 percent and reach 6.7 percent by 2031. The number of food-insecure people over the next decade is also projected to decline by almost $\frac{3}{4}$ to less than 600,000. By 2031, the daily per capita Calorie food gap is anticipated to decline by 29.6, from 294 kcal in 2021 to 207 kcal in 2031.

Indonesia experienced a sharp decline of its economy in 2020, due to the COVID-19 pandemic, with GDP shrinking by 3.0 percent (Baquedano, *et al.*, 2021). In 2021, GDP is estimated to grow by 3.3 percent and may reach \$1.05 trillion, 2.9 percent higher than the 2018–2020 average. However, GDP per capita in 2021 is estimated to be 1.3 percent below its 2019 level. The prevalence of food insecurity for 2021 is estimated at 15.7 percent and about 42 million people are estimated to be food-

insecure (*table 20*). From 2021 to 2031, Indonesian GDP per capita is projected to grow 4.3 percent a year. By contrast, over the same period, Indonesia population growth is anticipated to be 0.6 percent a year. As a result of the anticipated robust income growth over the next decade, the prevalence of food insecurity is projected to decline by 76.5 percent to 3.7 percent, with the food-insecure population to decline to below 11 million. By 2031, the daily per capita Calorie food gap is expected to decline by 22.6 percent, from 281 kcal in 2021 to 218 kcal in 2031.

In the Philippines, the COVID-19 pandemic severely affected livelihoods and the ability of households to purchase food (FAO, 2021). The food-security environment improved towards the end of 2020—as the Government of the Philippines refined its COVID-19 containment approach, maximized the operation of local food systems, and provided cash transfers to the most vulnerable populations (FAO, 2021). However, Baquedano, *et al.* (2021) reported that in 2020, the Philippines economy shrank by 8.3 percent. For 2021, GDP is estimated to grow by 7.7 percent, to \$391 billion, 3.7 percent higher than the average for the period 2018–2020. But GDP per capita in 2021 is estimated to remain some 4.2 percent below its 2019 level. As a result of the anticipated lower incomes levels for 2021, the prevalence of food insecurity is estimated at 25.0 percent and the number of food-insecure people is estimated to reach 27.7 million (*table 20*). From 2021 to 2031, the country's GDP per capita growth (3.6 percent a year) is projected to outpace population growth (1.4 percent a year). The expected strong economic growth over the next decade is projected to lead to a 62.1 percent decline in the prevalence of food insecurity to 9.5 percent. The number of food-insecure people is projected to decline by 56.5 percent from a decade earlier and reach 12.1 million. By 2031, the daily per capita Calorie food gap is expected to decline by 20.0 percent, from 347 kcal in 2021 to 278 kcal in 2031.

In Vietnam—early preparedness, contact tracing, isolation and testing, coupled with timely border closures, physical distancing and community adherence—have been key in controlling and mitigating the effects on the economy and health of the population of the COVID-19 pandemic (Tan, 2021). Despite early and proactive action by the country, Vietnam's economy was significantly impacted by the COVID-19 pandemic. GDP growth in 2020 was reported at just above 1.0 percent, but this is down from the 2018–2020 average of 5.1 percent (Baquedano, *et al.* 2021). The decline in economic growth mainly reflects the early impacts of closures of business and mobility restrictions.

Economic growth in 2021 is estimated at 5.5 percent and in absolute terms GDP is expected to reach almost \$268 billion, well above the average of \$247 billion for the period of 2018–2020. Despite the setbacks from the COVID-19 pandemic, Vietnam remains the most food-secure country in the SEA sub-region. In addition, in 2021, it is estimated that the prevalence of food insecurity will be less than 9.7 percent and 9.7 million people will be food-insecure (*table 20*). From 2021 to 2031, GDP per capita growth (5.9 percent a year) is projected to outpace population growth (0.6 percent a year). Moreover, the price of the main staple food, rice, is anticipated to remain relatively stable over the next decade. As a result, by 2031, the prevalence of food insecurity is projected to decline by 90.9 percent to 0.9 percent. The number of food-insecure people is expected to decline by 90.3 percent by 2031 to less than one million people. By 2031, the daily per capita Calorie food gap is projected to decline by 27.6 percent, from 263 kcal in 2021 to 190 kcal in 2031.

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Appendix I: Food Security Assessment Model: Definitions and methodology

The IFSA model¹⁹ used in this report projects food consumption (food demand), food access, and food gaps in 76 low- and middle-income countries. Each country's food security metrics are estimated for the 2021 and projected to 2031. Food is divided into four groups, covering 100 percent of food consumption: the major grain (determined by calorie share), other grains, root crops, and all other food.

The food security of a country is evaluated based on the gap between estimated domestic food consumption (food demand) and a caloric target, which is set at 2,100 kcal per capita per day—a caloric level necessary to sustain life at a moderate level of activity. The modeling projections of food demand are expressed in grain equivalent, based on each food group's caloric content to allow aggregation across food groups, allowing this grain equivalent to be easily expressed in either kilograms or kcal.

Three food security indicators are provided: (1) the share of food-insecure, which is the share of the total population unable to reach the nutritional target; (2) the number of food-insecure people; and (3) the food-gap, which is the amount of food needed to allow each individual consuming below the threshold level to reach the caloric target. This caloric target indicates relative well-being and helps to quantify unequal food access within a country. Projection results provide a baseline for the food-security situation in each country, and the results depend on the model's specification and underlying assumptions. The simulation framework used to project food demand is based on partial-equilibrium models for each country in the assessment. Beghin, *et al.* (2015) introduce the methodology, and Beghin, *et al.* (2017) provide more detail on price transmission and food security projections.

Each country model comprises a price-independent generalized log-linear (PIGLOG) demand system for each of the four food groups (Deaton & Muellbauer, 1980; Muellbauer, 1975). The demand system is calibrated on a 3 year average of prices and incomes (2018–20), observed consumption levels, a measure of inequality, and income and price elasticities. Demand projections are based on projected prices and incomes; the model implicitly assumes that both the *preferences* represented by the demand system and the *income distributions* embedded in the calibration and projections are constant over time.

The distribution of consumption used to calculate food security measures is described by a constant coefficient of variation, which implies an increasing standard deviation of consumption, as consumption rises over the projection period. But this does not account for potential structural changes in an economy. The implied price and income elasticities evolve over the projection period, as prices and incomes change; generally, food groups become more income-inelastic because incomes rise.

Structural framework for estimating and projecting food demand in the aggregate Demand system definition and calibration

The demand q^h_i for a given food group i , for income-decile h is specified as:

$$1. \quad q^h_i = (x^h_i / p_i) (A_i(p_i) + B_i(p_i) \ln(x^h_i))$$

where p_i is the price (expressed in real local currency), and x^h is the decile-level income.

$$\text{And: } A_i(p_i) = a_{i0} + a_{i1}p_i \text{ and } B_i(p_i) = b_{i0} + b_{i1}p_i.$$

The PIGLOG demand formulation allows for aggregation of income decile-level demands in (1) into average per capita market demand for each food group i as shown in (2).

$$2. \quad \bar{q}_i = \left(\frac{x_i}{p_i}\right) ((a_{i0} + a_{i1}p_i) + (b_{i0} + b_{i1}p_i) (\ln(\bar{x}) + \ln\left(\frac{10}{z}\right)))$$

The latter in equation (2) is a function of average per capita income \bar{x} and Theil's entropy measure of income inequality z .

The average expenditure share for good category i is also defined as:

$$3. \quad \bar{w}_i = (a_{i0} + a_{i1}p_i) + (b_{i0} + b_{i1}p_i) (\ln(\bar{x}) + \ln\left(\frac{10}{z}\right))$$

The elasticity of average demand for good i with respect to average income (or total expenditure) is:

¹⁹The methodology to estimate the IFSA model indicators was replaced in 2016. To understand the changes to the model and impact on our food security estimates, see Rosen, *et al.*, (2016).

$$4. \quad \varepsilon_{\bar{q}_i \bar{x}} = 1 + (b_{i0} + b_{i1})/\bar{w}_i$$

The own-price elasticity of the average demand is:

$$5. \quad \varepsilon_{q_i p_i} = -1 + \left(\frac{p_i}{\bar{w}_i}\right)(a_{i1} + b_{i1}(\ln(\bar{x}) + \ln\left(\frac{10}{z}\right)))$$

In each country, consumers at different income levels have similar underlying preferences over good i as embodied in parameters a_{i0} , a_{i1} , b_{i0} , b_{i1} , but their respective consumptions vary because their respective incomes vary.

With a system of three linear equations (equations 3, 4, and 5), with four unknown variables, one parameter remains free. The free parameter (chosen to be b_{i0}) is used to ensure that decile demands behave consistently with stylized facts of food security as follows: price sensitivity and income responsiveness decline with income levels; own-price elasticities must be negative; and food expenditure shares tend to fall with increasing income. A range of values of the free parameters allows ensuring these stylized facts are satisfied by the calibrated demand system. Here b_{i0} is pinned down such that the ratio of price elasticities for the bottom and top deciles is equal to the ratio of the natural logarithm of their national income shares.

For any given free parameter value, the system of equations is solved for parameters b_{i1} , a_{i1} , and a_{i0} as a function of the free parameter. Once these three parameters are recovered, parameters \bar{a}_{i0} , \bar{a}_{i1} , b_{i0} , and b_{i1} , along with income x^h and price p_i , are used to generate the consumption level of good i for each decile specified in equation (1). In this initial calibration, the quality of any good i is assumed to be constant across the income distribution.

For each country, a demand system is calibrated for each of the four food groups—based on income, consumption levels, and prices from the 3 years preceding the projection period (2018–20). The *major grain* (which varies across countries) is determined, based on caloric share in the diet. The *other grains* food group contains all other grains; the prices for this food group are weighted by its components' caloric shares.

At the calibration stage, domestic food prices are either observed (including the components of a price index for other grains that is weighted by caloric share) or synthetic prices are created.

For the food prices not observed in the calibration stage, a synthetic domestic price, p_i^{ds} , that is linked to the world price, p_i^w , is created and expressed in local currency. The parameter θ is the price transmission slope, which is assumed 0.7. The parameter trc^{int} represents international transportation and market costs [e.g., cost, insurance and freight (CIF) and free on board (FOB)], which are assumed 10 percent, and trc^{dom} are domestic trade costs, which are assumed \$20 per ton in real terms:

$$6. \quad p_i^{ds} = \theta * p_i^w * (1 + trc^{int} trc_{int} / \theta) * (1 = tariff / \theta) + trc^{dom}$$

At this stage, the calibration also includes a price transmission equation that links the domestic price p_i^{dom} (either observed or synthetic) to the world price. The generic price transmission equation is:

$$7. \quad p_i^{dom} = \theta * p_i^w + I$$

During the calibration stage, the intercept, I , is solved in real terms, and is held constant during the projection period.

Projection of food demand calculation and food security indicators

The IFSA food security indicators (share of food-insecure population, number of food-insecure people, and food-gap) are derived from the levels of food demand projected, using the calibrated demand system.

For each country, the demand parameters and projected income, x_i , and prices, p_{it} , are used to project food demand, q_{it} , for each of the four food groups i in each year t so that $q_{it} = A_i(x_i/P_{it})/(P_{it}) + B_i(P_{it})\ln(x_i)$. The demand for the four food groups is aggregated into total food demand expressed in Calories, so that $\sum q_{it} = Q_t$, which is also referred as food or caloric consumption. This measure of total demand is used to calculate food security indicators.

The FAO (2019) is followed to estimate the distribution of caloric consumption—beginning with a coefficient of variation (CV) of food availability—which characterizes consumption distributed with a mean m and variance v , so that $CV = (\sqrt{v}/m)$.²⁰

²⁰ See the appendix of Beghin, *et al.* (2015b) for more detail.

Given the CV and the projected mean caloric consumption (Q_t), the variance, v , of the empirical distribution for a given year t can be recovered.

Assuming food consumption Q_t is distributed lognormal, then $\ln(Q_t)$ is distributed

$N(\mu, \sigma^2)$ with $\mu = \ln\left(\frac{m^2}{\sqrt{v + m^2}}\right)$ and $\sigma^2 = \ln(1 + v/m^2)$. Once μ and σ^2 are computed, the proportion of the population that falls below the calorie target (2,100 Kcal per capita per day) is recovered using the standard normal CDF, Φ : $\Phi^{insecure} = \Phi\left(\frac{\ln(2,100 - \mu)}{\sigma}\right)$.

Here, $\Phi^{insecure}$ indicates the share of the population that is food-insecure. Using this share and total population in the respective country, the total number of food-insecure people in this country is calculated.

Next, the expected average food intake of food-insecure people, $q_{cal\ average}^{food\ insecure}$, can

be recovered, using the partial mean of the calorie availability below the target (2,100), which is calculated as $q_{cal}^{food} = e^{\mu - \sigma} / \Phi \wedge^{2100[\phi(\ln(2100 - \mu)/\sigma)]}$, where ϕ is the standard normal density function.

The food gap is the difference between the caloric target of 2,100 and the average calorie availability for food-insecure people. This provides a measure of the food gap in kcal per day per food-insecure person. The latter, multiplied by the number of food-insecure people and converted into grain equivalent per year, yields a food-gap measure based on annual grain volume.

Data

The model is calibrated for each of the four food groups, based on average prices and income from 2018–20. Prices are expressed in real local currency units. Quantities are expressed in grain-equivalent units.

Calibrated parameters and variables

Demand parameters (\hat{a}_{io} , \hat{a}_{il} , b_{io} , and b_{il}), price intercepts, domestic prices (synthetic) projections are based on data from the *ERS International Macroeconomic Data Set* and the *USDA Agricultural Projections to 2030*. They utilize the calibrated demand parameters and price transmission between world and domestic prices.

Endogenous projection variables

Food Demand, Domestic Prices.

Exogenous variables used in Calibration and Projection

Average Consumption per capita—Food and Agriculture Organization (FAO) of the United Nations Food Balance Sheet (most recent available).²¹

Grain Shares—FAO Food Balance Sheet.²²

Elasticities of Price and Income—unpublished calculations by Jim Seale, using 2011 International Comparison Program (ICP) data, following the methodology in Muhammad, *et al.* (2011).²³

Domestic Prices (Observed)—FAO Global Information and Early Warning System (GIEWS), annual average; market depends on reporting.

²¹ Food Balance Sheets (FBS) are for 2018. There are no current FBS for Somalia, Eritrea, Burundi, and Democratic Republic of the Congo. Grain consumption levels share of grains are used in total Calories, as reported in the FAO–GIEWS *Cereal Supply and Demand Balance for Sub-Saharan African Countries: situation as of November 2020* report, to generate per capita consumption for each food group. We use grain consumption levels and share of grains in total Calories, as reported in the Food Agriculture Organization of the United Nations–Global Information Early Warning Systems *Cereal Supply and Demand Balance for Sub-Saharan African Countries: situation as of November 2020* report, to generate per capita consumption for each food group. We bring forward the reported consumption of all food groups, using information from FAO's grain supply data and changes in caloric intake.

²² For Somalia, we use an FBS from the original Food and Agriculture Organization Statistical Database, which is no longer maintained. The FBS of neighboring countries used (Burundi—Rwanda; DR Congo—Congo; Eritrea—Ethiopia) to approximate the shares of grains and roots and tubers in total Calories for the other countries.

²³ Elasticities are not available for all countries. Estimates used from neighboring countries (Somalia—Ethiopia; Eritrea—Ethiopia; Algeria—average Tunisia and Morocco; Afghanistan—average Tajikistan and Pakistan; Turkmenistan—average Tajikistan, Kyrgyzstan, Kazakhstan; Uzbekistan—average Tajikistan, Kyrgyzstan, Kazakhstan). We use less elastic values for major grain in: Vietnam, Philippines, Indonesia, India, Pakistan, and Bangladesh—and for other grain in India.

Tariffs—World Bank’s World Integrated Trade Solution (WITS).²⁴
 Exchange Rates and Consumer Price Indices (CPIs)—*ERS International Macroeconomic Data Set*.²⁵
 Population—U.S. Census Bureau.
 World Prices—*USDA Agricultural Projections to 2027*.²⁶
 Per Capita Income—generated using GDP and population from *ERS International Macroeconomic Data Set*.²⁷
 Income Distribution—World Bank Data Bank.²⁸ Assumed constant during the projection period.
 Coefficient of Variation (CV) of Food Consumption—FAO State of Food Insecurity (FAO, 2019). Assumed constant during the projection period.

Modeling Staple Cereal Production

The current production module of the IFSA model aggregates a panel of agricultural production data for all 76 countries in the assessment to provide a model-based estimation for the current year and a projection 10 years out for yield and area dynamics.

Agricultural production is decomposed into yield (production per hectare) and area for grains. Production (PR) for a given country c in year t is obtained by multiplying projected yield (YL) and area (AR).

$$PR_{ct} = AR_{ct} * YL_{ct}$$

The projections cover the period 2021–2031, based on producer price projections in local currency units and world price projections from the USDA Agricultural Projections.

Yield

Yield parameters are estimated econometrically, using panel data consisting of observations for each country and are calibrated to observed yields for the immediate past 3 years (*e.g.*, 2017–2019). Yields). The calibration procedure involves in-sample prediction using observed yield data and consensus estimates for expected return ratio—an indicator of the relative profitability of fertilizer use. Yields respond to expected relative return ratios per hectare (RR), autonomous technical change over time (T), and include a country-specific effect.

$$YL_{ct} = f(RR_{ct}, T_t)$$

The return ratios are the ratio of the return per hectare-revenue from yield divided by the price of fertilizer, $RR_{ct} = ((yp_{ct} * Y_{ct}) / fp_{ct})$ where yp and fp are yield and fertilizer prices, respectively. The expected return ratios include a current-year component and a long-term expectation component, expressed in real local currency unit ($rlcu$). USDA Agricultural Projection (to 2030) prices for superphosphate and the major grain by production volume (for grain) are used.

The domestic price for each grain is linked to its world reference price, expressed in real local currency unit, through the following price transmission equation:

$$P_{domestic} = 0.7 \times p_{world} + 0.3 \times I$$

²⁴Tariff rates are available through 2018. Tariff rates for Somalia, Turkmenistan, Eritrea, and North Korea are not available. For Eritrea, we use the Common Market for Eastern and Southern Africa (COMESA) average. Somalia has imposed a 12.3 percent tariff on commercial imports (LCU Logistics). Turkmenistan has no tariff, but imposes excise taxes that have historically been 10 percent. North Korea does not import on the open market, so we assume there are zero tariffs and do not quantify other trade frictions.

²⁵Ecuador and El Salvador are modelled in the currency of U.S. dollars (instead of local currency) as in the ERS International Macroeconomic Dataset, based on data from the International Monetary Fund (IMF), and Oxford Economics. Projections constructed for: Somalia, North Korea, and Zimbabwe—using data from International Monetary Fund (IMF), IHS Markit, and Oxford Economics.

²⁶The world price series are maize (U.S. gulf #2 yellow); rice (Thai, B, fob Bangkok); sorghum (U.S. Gulf, #2 yellow); wheat (gulf, #2 Hard Red Wheat); barley (E.C., French, Rouen); Oats (U.S. Farm); roots and tubers (cassava; tapioca, hard pellets, Rotterdam, fob); other food (represented by soybean oil, Dutch fob, ex-mill). World price projections are not available for all cereals represented in the Food and Agriculture Organization of the United Nations (FAO) Food Balance Sheets and the FAO Global Information Early Warning System price database. We use the world price of wheat to represent rye; and sorghum to represent all other cereals (*e.g.*, millet, teff, fonio).

²⁷Projections were constructed using information from IMF, Oxford Economics, and IHS Markit for Zimbabwe, Somalia, and North Korea.

²⁸Income distributions are not available for all countries. We use Eritrea—Ethiopia; Somalia—Ethiopia; Zimbabwe—Zambia; North Korea—Mongolia; and Afghanistan—average Uzbekistan, Pakistan, Tajikistan.

The expected domestic price is a weighted average of 70 percent of the current-year world price (p_{world}) and 30 percent of the mean domestic price (I) over the analysis time period. The grain production data used in the estimation come from USDA's Production Supply and Demand (PSD) database and from the Food and Agriculture Organization of the United Nations (FAO). The intercept, I , is the mean of the price over the regression time period (1985–2020).

Modeling Area

Crop area, AR_{ct} , is modeled with the widely used Nerlovian specification—in which lagged area, expected crop and fertilizer prices, and a time trend—enter into the equation as follows:

$$AR_{ct} = f(y_{p_{ct}}, fp_{ct}, AR_{ct-1}, T)$$

The expected prices are averages of contemporaneous and lagged relative prices. A time trend is included in the area equation to capture non-price factors in area, and a country fixed effect. The area equation is numerically calibrated to the base year average of the preceding 3 years of the report (*e.g.*, 2018–20), using consensus estimates for price and lagged acreage responses. Regional and sub-regional models are fitted to allow for heterogeneity among diverse countries included in the IFSA model. The regional specification disaggregates the estimation of area and yield by the four regional classifications of the IFSA countries: Sub-Saharan Africa (SSA), Asia, Latin America and the Caribbean (LAC), and North Africa (NAF). The sub-regional specification disaggregates the model to 10 sub-regions of the IFSA countries: Central Africa (CAF), East Africa (EAF), Southern Africa (SAF), West Africa (WAF), North Africa (NAF), Latin America and Caribbean (LAC), Commonwealth of Independent States (CIS), Central and South Asia (CSA), Southeast Asia (SEA), and Other Asia (OA).

Model-based projection performance is assessed in terms of how well the specified model can be expected to perform on an independent (out-of-sample) data set, often assessed by the actual estimate of the out-of-sample Mean Squared Error (MSE). When an independent out-of-sample dataset is not available, a Cross-Validation (CV) approach (used in this report) can be used to choose the best model—by estimating the out-of-sample MSE, using an in-sample data set. The out-of-sample error (often referred to as the test-error) is the average error that results from using the regression method to predict the response on a new observation that was not used in regression estimation. Given an in-sample dataset, the choice of a particular specification (in this report, the regional and sub-regional model specifications) is warranted if the model results in a low test error (James, *et al.*, 2017). The models are assessed with a “leave-one-out-cross-validation” (LOOCV) to simulate their out-of-sample prediction performance (James, *et al.*, 2017).

The performances of regional and sub-regional model specifications are assessed using the overall out-of-sample MSE scores. The model with the smallest out-of-sample MSE is selected for estimation.

Modeling IASR

The Implied Additional Supply Required (IASR) quantifies the total grain demand in each country that is not projected to be met through domestic production. Total grain demand (TD) is comprised of food demand (FD), generated by our demand-driven model and nonfood use (NFD)—which is comprised of seed, feed, processing, and other uses. The IASR for grains thus can be expressed as: $IASR = TD - PR$.

The demand for grain for processing, seed, and other uses, is assumed to grow at the same rate as production. The demand for grain feed grows at the average rate observed during 2006–20.

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Appendix II: Food Security Measures for International Food Security Assessment Countries, 2021-2031

Appendix table 1-1

Summary food security indicators for 76 countries in the International Food Security Assessment

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total) ^a	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Total for IFSA countries	3,938.1	4,566.1	1,212.0	637.7	30.8	14.0	380	308	62,794	34,410
Asia	2,470.8	2,731.4	647.3	175.7	26.2	6.4	304	231	28,285	6,992
<i>Commonwealth of Independent States</i>	73.0	77.3	10.1	4.7	13.8	6.1	244	187	414	202
Armenia	3.0	2.9	0.1	0.0	4.8	0.2	189	137	3	0
Azerbaijan	10.3	10.8	0.4	0.1	4.3	0.6	170	135	9	1
Georgia	4.9	4.9	0.5	0.1	10.8	1.7	234	178	16	2
Kyrgyzstan	6.0	6.5	1.1	0.4	18.3	5.6	263	209	37	10
Moldova	3.3	2.9	0.8	0.0	24.3	1.2	243	146	26	1
Tajikistan	9.0	10.2	4.8	3.9	53.6	38.2	442	378	265	183
Turkmenistan	5.6	6.1	0.4	0.1	7.6	1.0	212	162	12	1
Uzbekistan	30.8	33.0	1.8	0.2	5.9	0.7	195	150	46	4
<i>Central and Southern Asia</i>	1,834.1	2,039.9	508.9	107.3	27.7	5.3	315	229	20,889	3,505
Afghanistan	37.5	46.6	22.1	18.1	58.9	38.8	397	322	1,044	692
Bangladesh	164.2	178.3	42.1	10.5	25.7	5.9	300	218	1,856	336
India	1,340.5	1,473.0	345.4	32.1	25.8	2.2	289	183	13,400	789
Nepal	30.6	32.6	4.2	0.1	13.6	0.3	255	157	150	2
Pakistan	238.3	285.2	90.7	45.6	38.1	16.0	389	301	4,268	1,659
Sri Lanka	23.0	24.2	4.5	1.0	19.4	4.0	258	191	171	28
<i>Other Asia</i>	59.6	66.3	42.8	39.0	71.9	58.7	457	375	3,109	2,372
Korea, Democratic People's Republic of	25.9	26.7	16.3	14.0	63.1	52.3	446	397	1,041	792
Mongolia	3.2	3.4	0.7	0.2	21.6	5.4	295	223	25	5
Yemen	30.5	36.2	25.8	24.8	84.6	68.5	631	505	2,043	1,575
<i>South East Asia</i>	504.1	547.7	85.5	24.7	17.0	4.5	296	220	3,873	912
Cambodia	17.2	19.2	3.6	0.6	20.8	3.0	292	205	159	18
Indonesia	269.1	286.6	42.2	10.6	15.7	3.7	281	218	1,765	341
Laos	7.6	8.6	2.3	0.6	30.5	6.7	294	207	110	19
Philippines	110.8	127.3	27.7	12.1	25.0	9.5	347	278	1,454	506
Viet Nam	99.5	106.0	9.7	0.9	9.7	0.9	263	190	384	27
Latin America and the Caribbean	174.8	191.0	44.7	23.5	25.6	12.3	345	284	2,236	1,152
<i>South America</i>	110.6	120.2	24.2	9.9	21.8	8.3	290	229	975	320
Bolivia	11.8	13.4	5.3	2.6	45.0	19.7	343	259	239	90
Colombia	49.5	53.3	6.3	1.6	12.6	3.0	260	205	235	47
Ecuador	17.1	18.9	4.7	2.4	27.7	12.8	264	216	175	73
Peru	32.2	34.6	7.8	3.3	24.4	9.5	295	237	326	110
<i>Central America and the Caribbean</i>	64.2	70.8	20.5	13.6	32.0	19.2	376	315	1,261	833
Dominican Republic	10.6	11.5	1.2	0.3	11.2	2.4	227	179	39	7
El Salvador	6.5	6.7	1.5	0.8	22.9	11.4	290	246	49	21
Guatemala	17.4	20.1	5.2	3.0	29.8	15.1	356	297	211	103
Haiti	11.2	12.5	7.3	6.7	65.2	53.7	753	673	722	593
Honduras	9.4	10.4	2.4	1.1	25.9	10.4	341	274	93	33
Jamaica	2.8	2.7	0.4	0.1	15.6	2.8	235	175	13	2
Nicaragua	6.3	6.8	2.5	1.6	39.6	23.6	428	361	134	73
North Africa	197.8	228.0	28.6	17.7	14.5	7.8	280	245	1,116	613
Algeria	43.6	48.6	5.2	2.3	11.8	4.8	282	241	189	73
Egypt	106.5	128.3	20.1	13.7	18.9	10.7	331	292	811	490
Morocco	35.9	38.8	2.7	1.4	7.4	3.5	266	238	93	43
Tunisia	11.8	12.4	0.7	0.3	6.0	2.3	242	211	22	7
Sub-Saharan Africa	1,094.7	1,415.6	491.5	420.8	44.9	29.7	444	365	31,158	25,653
<i>Central Africa</i>	145.1	194.5	99.9	114.2	68.8	58.7	538	437	9,633	10,084
Cameroon	28.5	37.2	6.0	4.3	21.1	11.7	303	264	238	150
Central African Republic	6.1	7.5	4.5	2.3	73.9	31.2	555	351	283	92
Congo, Republic of the	5.4	6.8	3.1	2.7	56.7	39.6	402	337	162	120
Congo, Democratic Republic of the	105.1	143.0	86.3	104.8	82.1	73.3	892	798	8,949	9,722
<i>East Africa</i>	382.4	489.7	177.2	134.9	46.3	27.6	487	407	9,493	6,988
Burundi	12.3	16.5	9.7	13.0	79.3	78.9	580	577	657	874
Chad	17.4	23.4	11.7	13.7	67.0	58.4	607	554	895	958
Eritrea	6.1	6.9	3.8	1.3	62.5	19.0	442	276	211	45
Ethiopia	110.9	139.6	37.7	16.0	34.0	11.4	318	239	1,093	304
Kenya	54.7	66.9	25.2	9.9	46.0	14.7	372	260	1,166	319
Rwanda	12.9	15.2	5.4	2.7	41.8	18.0	413	317	264	102
Somalia	16.4	21.8	13.7	16.8	84.0	77.2	727	659	1,146	1,271
Sudan	46.8	60.5	17.9	12.5	38.3	20.6	390	320	822	469

Appendix table 1-1—Continued

Summary food security indicators for 76 countries in the International Food Security Assessment

	Population		Population food-insecure		Share of population food-insecure		Food gap (per capita)		Food gap (total)*	
	2021	2031	2021	2031	2021	2031	2021	2031	2021	2031
	Millions		Millions		Percent		Kilo-calories/day		1,000 Metric tons	
Tanzania	60.2	78.0	25.5	27.6	42.4	35.3	495	461	1,574	1,587
Uganda	44.7	60.9	26.5	21.5	59.2	35.2	522	410	1,665	1,060
<i>Southern Africa</i>	<i>152.6</i>	<i>199.1</i>	<i>89.7</i>	<i>88.2</i>	<i>58.8</i>	<i>44.3</i>	<i>471</i>	<i>391</i>	<i>6,006</i>	<i>5,163</i>
Angola	33.6	46.9	17.1	23.6	50.9	50.4	443	440	965	1,323
Lesotho	2.0	1.9	0.8	0.2	40.7	12.5	364	259	34	7
Madagascar	27.6	34.1	18.3	17.4	66.5	51.0	493	418	1,295	1,039
Malawi	21.9	30.2	8.6	5.7	39.5	18.8	405	322	408	213
Mozambique	30.9	39.9	18.1	14.8	58.7	37.0	519	417	1,214	795
Namibia	2.7	3.2	1.1	0.8	42.9	26.2	323	270	46	28
Eswatini	1.1	1.2	0.3	0.2	31.1	17.2	308	260	12	6
Zambia	17.9	23.8	12.9	15.4	71.7	64.9	697	646	1,065	1,186
Zimbabwe	14.8	18.0	12.3	10.1	83.2	55.9	685	492	967	565
<i>West Africa</i>	<i>414.7</i>	<i>532.3</i>	<i>125</i>	<i>83.5</i>	<i>30.1</i>	<i>15.7</i>	<i>379</i>	<i>306</i>	<i>6,025</i>	<i>3,417</i>
Benin	13.3	18.4	2.7	1.1	20.3	6.1	319	250	116	38
Guinea-Bissau	2.0	2.5	1.0	0.7	52.1	26.5	422	323	57	29
Burkina Faso	21.4	26.9	6.4	4.3	30.1	15.9	456	385	364	205
Cabo Verde	0.6	0.7	0.2	0.1	36.6	9.6	338	238	10	2
Côte d'Ivoire	28.1	34.6	6.9	5.9	24.5	16.9	420	382	414	321
Gambia	2.2	2.6	0.5	0.1	22.5	4.4	298	216	17	3
Ghana	30.0	36.8	2.6	0.7	8.6	1.9	249	201	82	18
Guinea	12.9	16.9	2.9	2.0	22.6	11.8	356	306	162	95
Liberia	5.2	6.8	3.1	2.2	59.0	32.0	619	475	213	116
Mali	20.1	26.8	4.1	4.0	20.5	14.9	329	305	172	154
Mauritania	4.1	4.9	0.8	0.3	19.6	5.6	316	246	32	9
Niger	23.6	34.0	9.1	5.6	38.5	16.5	456	355	582	280
Nigeria	219.5	280.5	74.5	51.0	33.9	18.2	351	291	3,287	1,870
Senegal	16.1	19.9	3.6	1.3	22.5	6.7	278	215	143	41
Sierra Leone	6.8	8.7	3.1	2.7	45.0	31.3	497	433	235	183
Togo	8.8	11.2	3.1	1.6	35.5	14.2	356	275	139	55

Source: USDA, Economic Research Service based on results from the International Food Security Assessment model.

APPENDIX III: MACROECONOMIC MEASURES FOR THE INTERNATIONAL FOOD SECURITY ASSESSMENT COUNTRIES, 2021–2031

Appendix table 2-1
Summary: Macroeconomic information for 76 countries in the International Food Security Assessment

Country	Population (million)		Population Annual growth rate (percentage)		Gross Domestic Product (GDP), million 2015 USD		GDP Annual growth rate (percentage)		Per capita GDP (2015 USD)		CPI Annual growth rate (percentage)		RER Annual growth rate (percentage)		Real domestic price of major grains Annual growth rate (percentage)				
	2018-2020	2021	2015-2020	2021-2031	2018-2020	2021	2015-2020	2021-2031	2015-2020	2021-2031	2015-2020	2021-2031	2015-2020	2021-2031	2015-2020	2021-2031			
Total IFSA Countries	3 814	3 698	1.7	1.5	8 241 829	8 495 164	8.8	4.4	2 147	2 297	3.3	3.3	2.9	2.9	N/A	N/A			
Asia	2 414	2 471	1.0	1.0	5 328 449	5 485 042	3.6	5.4	2 207	2 220	1.1	4.3	3.3	3.3	N/A	N/A			
<i>Commonwealth of Independent States</i>	72	73.0	0.8	0.6	250 517	255 647	2.5	3.3	3 454	3 502	1.7	2.7	2.7	2.7	N/A	N/A			
Armenia	3	3.0	-0.2	-0.5	12 419	12 918	3.3	4.1	4 099	4 280	3.6	4.6	0.9	2.5	1.7	-1.2	-0.6		
Azerbaijan	10	10.3	0.8	0.5	32 105	31 174	-1.0	2.2	3 145	3 178	-1.8	1.7	6.4	3.7	5.7	-5.4	-0.9		
Belarus	9	9.0	0.4	0.4	67 506	66 872	0.1	0.4	7 466	7 452	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
Kyrgyzstan	6	6.0	6.5	1.0	7 654	7 676	2.5	3.2	1 296	1 275	1 639	1.2	2.5	4.6	2.3	0.8	-0.2	-1.3	
Moldova	3	3.3	2.9	-1.1	8 916	9 062	2.5	3.4	2 622	2 723	4 309	3.6	4.7	3.7	-2.2	-2.2	-4.0	-4.0	
Tajikistan	9	9.0	10.2	1.6	1.3	9 023	12 714	4.3	2.5	1 335	1 102	1 244	2.7	1.2	7.0	4.3	5.2	0.5	-0.3
Turkmenistan	5	5.6	6.1	1.1	0.8	44 721	47 577	4.9	4.0	8 176	8 517	11 695	3.7	3.2	9.2	5.3	-6.9	0.0	-6.6
Uzbekistan	33	33.0	3.3	3.3	12 319	12 596	2.3	3.3	3 744	3 814	3 711	3.1	3.1	3.1	3.1	3.1	3.1	3.1	
<i>Central and South-eastern Asia</i>	1 790	1 834	2 040	1.3	3 223 536	3 422 580	3.8	5.7	1 857	1 861	2 914	2.5	4.6	N/A	N/A	N/A	N/A		
Afghanistan	38	38	47	2.4	21 944	23 551	2.6	4.1	613	628	758	3.3	5.6	4.3	0.6	0.3	-0.8	-0.8	
Bangladesh	161	164	178	1.0	255 803	257 065	6.2	5.7	1 588	1 566	2 506	5.2	4.8	6.2	-1.9	0.2	-1.1	-1.2	
India	1 310	1 390	1 473	1.2	2 811 040	2 693 326	3.8	5.9	1 991	2 009	3 248	5.2	5.2	5.2	-0.3	-0.3	-3.5	-3.5	
Indonesia	269	269	269	0.4	1 818 801	1 818 801	0.4	0.4	6 818	6 818	6 818	6.8	6.8	6.8	6.8	6.8	6.8	6.8	
Pakistan	229	238	285	2.1	318 511	320 857	3.1	4.4	1 393	1 347	1 725	0.9	2.5	5.6	4.9	-1.3	-1.5	-0.7	
Sri Lanka	23	23	24	0.7	90 047	88 961	1.7	4.0	3 961	3 862	5 422	1.0	3.5	4.3	4.7	4.0	-0.8	1.6	2.3
<i>Other Asia</i>	59	69	66	1.4	66 536	63 674	-5.0	2.5	1 746	1 768	1 233	1.4	N/A	N/A	N/A	N/A	N/A	N/A	
Korea, Demo-	26	26	27	0.5	29 986	31 698	0.3	1.5	1 168	1 224	1 377	1.2	3.8	4.7	1.2	1.7	-0.3	0.9	
People's Republic of																			
Yemen	3	3	3	1.1	13 718	14 634	21 902	3.0	4.1	4 374	4 577	6 403	1.8	3.4	4.6	5.5	4.5	-0.1	-0.5
<i>South-East Asia</i>	29	30	36	2.3	22 831	23 148	-14.4	4.0	780	567	639	1.2	28.6	8.3	-3.3	-2.8	-1.1	-3.4	
Malaysia	30	30	30	0.8	1 687 870	1 756 202	2 905 323	3.8	5.2	5 474	5 394	3 484	2.7	4.3	N/A	N/A	N/A	N/A	
Cambodia	17	17	19	1.1	23 429	25 350	46 640	6.2	6.1	1 404	1 501	2 427	4.6	4.9	2.5	3.0	-0.7	-1.8	
Thailand	26	26	26	0.1	1 069 116	1 069 116	0.1	0.1	40 318	40 318	40 318	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Laos	8	8	9	1.5	18 213	19 818	5.5	4.8	2 481	2 624	3 690	4.0	3.5	2.1	4.1	1.0	-1.1	-0.9	
Philippines	108	111	127	1.6	1.4	377 487	390 948	687 547	5.5	5.0	3 510	3 527	5 008	1.9	3.0	3.0	3.0	0.8	
Vietnam	98	100	106	0.9	0.6	246 635	267 837	476 796	5.6	5.9	2 520	2 681	4 498	4.7	3.2	3.7	0.0	-0.2	
Latin American and the Caribbean	171	175	191	1.1	887 251	862 572	1 188 685	0.2	3.3	5 185	4 696	6 222	2.3	N/A	N/A	N/A	N/A	N/A	
<i>Caribbean</i>	63	64	71	1.3	240 441	243 190	342 013	2.0	3.5	3 835	3 759	4 831	0.7	2.5	N/A	N/A	N/A	N/A	
Dominican Re-	10	11	11	1.0	86 468	87 907	132 994	3.6	4.2	8 315	8 295	11 571	2.6	3.4	2.7	3.5	3.7	1.1	-0.3
public	6	7	7	0.87	34 056	34 533	99 074	0.4	1.7	5 884	5 758	4 571	0.5	9.5	0.5	9.5	9.5	-0.4	
Ecuador	17	17	20	1.4	69 074	71 568	100 371	2.0	3.4	4 095	4 104	4 987	0.3	2.0	3.6	3.7	-1.7	-0.6	
Guatemala	11	11	13	1.5	1.1	8 899	8 525	10 426	-0.3	3.0	814	761	832	-1.8	0.9	14.6	5.6	6.6	-0.5
Haiti	9	9	10	1.3	1.1	23 816	24 020	34 410	2.2	3.7	2 612	2 569	3 299	0.93	2.3	3.9	4.9	0.5	0.5
Honduras	3	3	3	-0.1	-0.2	14 522	14 346	18 114	-0.5	2.4	5 167	5 112	6 096	-0.4	2.6	3.7	4.8	2.2	-1.4
Jamaica	3	3	3	0.9	0.9	6 462	6 462	6 462	0.9	0.9	2 085	2 085	2 085	2.3	2.3	2.3	2.3	2.3	2.3
Paraguay	7	7	7	1.0	0.6	64 599	61 827	84 652	1.3	0.6	7 444	-2.5	4.9	4.8	4.8	4.8	4.8	4.8	
Uruguay	3	3	3	0.8	0.8	38 769	38 769	50 423	1.7	3.2	3 238	3 117	3 758	0.2	1.9	2.5	5.5	-0.5	-1.0
Costa Rica	5	5	5	1.3	37 153	38 769	50 423	1.7	3.2	3 238	3 117	3 758	0.2	1.9	2.5	5.5	-0.5	-1.0	
Bolivia	11	12	13	1.5	1.0	308 028	299 255	415 860	-0.2	3.2	3 334	6 042	7 806	-1.1	2.6	4.2	3.1	3.6	-0.8
Colombia	49	50	53	1.0	0.7	936 606	936 606	119 346	-1.4	2.5	5 908	5 473	6 313	-2.6	1.4	0.4	2.3	-0.7	
Ecuador	17	17	19	1.3	1.0	98 674	119 346	134 313	-1.4	2.5	5 908	5 473	6 313	-2.6	1.4	0.4	2.3	-0.7	
Peru	32	32	35	0.9	0.7	202 954	190 122	261 044	-0.7	3.2	6 418	7 534	2.0	2.0	1.2	0.3	-0.6	-0.6	

	191	198	228	1.9	1.4	723.720	600.510	966.847	2.3	3.3	3.791	3.537	42.40	0.4	1.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
North Africa																														
Algeria	42	44	49	1.7	1.1	170,751	167,336	232,083	-0.9	2.4	4,035	3,838	4,387	-2.5	1.3	4.4	4.5	2.2	-0.8	-1.5	-2.7									
Egypt	102	106	128	2.4	1.9	398,453	377,987	538,178	4.4	3.6	3,915	3,551	4,944	1.9	1.7	14.5	4.4	3.4	-0.8	-0.8	-0.9									
Morocco	35	36	39	1.0	0.8	109,550	110,109	152,858	-1.0	3.3	3,111	3,068	3,945	0.0	2.5	1.0	2.1	0.1	2.1	3.0	0.4									
Tunisia	12	12	12	1.0	0.5	44,967	44,067	63,728	0.1	3.8	3,870	3,732	5,144	-1.0	3.3	5.8	3.6	3.3	3.0	1.3	-2.0									
Sub-Saharan Africa																														
Central Africa																														
Cameroun	1088	1,095	1,416	2.8	2.6	1,401,812	1,435,031	2,130,361	1.6	4.0	1,351	1,311	1,505	1.1	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Congo, Republic	27	29	37	3.7	3.0	89,157	78,004	138,004	2.3	4.9	652	630	710	-0.8	2.9	1.5	2.9	0.5	0.2	-0.3	-0.8									
Congo, Republic of the	6	6	7	2.1	2.0	1,967	2,052	3,176	3.2	4.5	355	335	425	1.1	2.4	4.8	6.8	-2.7	-5.1	-1.0	-1.3									
Congo, Democratic Republic of the	99	105	143	3.3	3.1	43,509	44,723	70,853	-1.7	2.6	1,570	1,480	1,515	-3.8	0.2	1.8	2.2	0.3	-0.7	-1.4	-4.1									
East Africa																														
Burundi	363	382	460	2.8	2.5	372,194	397,582	620,517	3.9	4.7	1,026	1,025	1,267	1.1	2.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Ethiopia	12	12	17	3.0	2.9	3,452	3,426	4,226	-0.3	2.9	672	650	726	-2.9	-1.0	3.7	5.2	2.3	-0.3	-0.3	-0.2									
Ethiopia	12	12	23	3.1	2.9	4,356	4,356	5,062	-0.2	4.1	571	550	623	-0.3	4.1	4.1	5.3	7.0	-0.3	-0.3	-0.3									
Ethiopia	6	6	16	3.2	3.1	4,476	4,476	6,188	-2.7	2.2	831	810	899	-4.4	1.4	5.3	7.5	7.0	-0.3	-0.3	-0.3									
Ethiopia	105	110.9	146	2.7	2.2	88,214	96,432	173,112	7.4	6.1	837	886	1,246	4.6	3.7	13.1	9.6	-0.2	2.1	-0.3	-0.3									
Kenya	52	55	67	2.3	2.0	78,145	82,150	142,214	4.4	5.6	1,492	1,509	2,126	2.1	3.5	5.9	4.0	-2.4	0.5	-0.6	-2.1									
Rwanda	12	13	15	2.2	1.6	10,988	11,812	18,123	6.0	4.4	882	912	1,192	3.6	2.7	5.5	5.6	1.7	0.9	-0.5	-0.6									
Somalia	15	16	22	2.9	2.9	1,629	1,647	2,289	2.2	3.3	105	101	105	-0.6	0.4	3.6	4.5	2.7	0.1	0.0	0.0									
Sudan	44	47	60	2.8	2.6	76,080	75,680	90,782	-0.7	2.1	1,716	1,614	1,539	-3.5	1.5	11.7	-7.6	2.2	1.2	-2.2	1.2									
Tanzania	57	60	78	2.8	2.6	69,597	63,678	90,782	5.3	3.6	1,046	1,059	1,164	2.5	1.0	4.2	2.8	0.6	1.9	-0.1	-1.4									
Uganda	42	45	61	3.7	3.1	39,131	42,479	77,135	4.9	6.1	934	950	1,267	1.1	2.9	4.1	4.4	0.4	2.0	-0.1	-1.4									
South Africa																														
Angola	31	34	47	3.6	3.4	108,655	108,761	148,953	-0.6	3.5	1,445	1,367	1,479	-3.3	0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Lesotho	2	2	2	0.2	0.2	2,421	2,385	3,172	-0.4	2.9	1,232	1,209	1,629	-0.6	3.0	5.0	4.4	2.1	-0.2	-1.7	-0.9									
Madagascar	26	28	34	2.5	2.1	13,251	14,019	20,148	3.6	3.7	503	508	592	1.1	1.5	7.2	5.8	0.7	1.3	-0.6	0.5									
Malawi	21	22	30	3.4	3.3	7,205	7,402	11,040	2.7	2.2	351	338	386	5.92	2.6	8.3	4.7	4.2	1.3	-0.3	0.3									
Mozambique	29	31	40	2.7	2.6	17,912	18,513	30,873	2.2	5.2	611	599	774	-0.4	2.6	8.3	5.4	-2.3	-2.9	-1.9	-2.6									
Namibia	3	3	3	1.9	1.8	10,944	10,484	13,684	-1.6	2.7	4,239	3,914	4,288	-3.5	0.9	4.6	4.5	2.5	-0.3	-0.5	-0.5									
Swaziland	1	1	1	0.8	0.6	4,282	4,265	5,189	0.5	2.0	3,907	3,833	4,386	-0.3	1.4	5.0	4.7	1.0	-0.4	-0.5	-0.5									
Zambia	17	18	24	3.0	2.9	23,687	23,666	33,572	1.8	3.6	1,399	1,319	1,411	-1.2	0.7	11.0	5.2	5.3	1.0	-0.7	1.0									
Zimbabwe	14	15	18	1.6	1.9	20,385	19,032	27,956	-1.2	3.9	1,427	1,283	1,554	-2.8	1.9	59.6	6.3	13	(3)	-1.4	2.3									
West Africa																														
Guinea-Bissau	394	415	532	2.6	2.5	737,729	743,776	1,077,252	1.0	3.8	1,858	1,794	2,024	-1.5	2.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Burkina Faso	2	2	3	2.5	2.6	15,248	13,291	18,683	3.7	3.7	666	653	731	1.1	1.1	1.7	2.8	0.34	-1.39	-2.4	0.2									
Cabo Verde	20	21	27	2.8	2.3	14,856	15,924	22,767	5.3	3.8	2,178	2,212	2,611	2.8	1.7	0.7	2.3	1.03	-1.18	-2.2	-1.6									
Cote d'Ivoire	27	28	35	2.4	2.1	58,530	62,150	90,278	5.2	5.1	3,142	3,044	4,484	-0.1	4.0	0.7	1.5	1.33	-0.08	-0.7	0.5									
Ghana	2	2	3	2.0	1.6	1,387	1,444	1,844	3.2	4.6	744	743	1,000	1.1	3.0	7.0	5.5	-0.73	0.02	-1.7	-0.6									
Ghana	29	30	37	2.2	2.1	59,920	64,106	86,262	4.5	4.5	2,086	2,139	2,694	2.3	2.3	11.0	10.0	-0.38	-0.51	-0.8	-0.2									
Ghana	12	13	17	2.8	2.8	11,822	12,498	19,132	6.4	4.3	970	970	1,131	3.5	1.5	9.0	6.6	-1.39	-0.01	-0.7	-0.8									
Liberia	5	5	7	2.6	2.7	3,165	3,143	4,212	-0.8	4.9	639	603	619	0.19	0.27	17.3	17.1	3.00	-3.37	-3.3	1.8									
Mali	19	20	27	2.9	2.9	18,905	19,573	25,382	3.3	3.7	1,527	1,576	2,510	0.7	2.8	2.2	3.1	2.38	-3.11	-3.38	0.6									
Niger	11	11	15	2.6	2.6	14,315	14,315	17,700	4.4	4.4	1,713	1,703	2,121	0.9	2.6	2.1	2.1	2.28	-0.11	-0.20	-0.1									
Niger	24	24	34	2.8	3.1	11,862	12,408	16,100	4.4	4.4	545	546	709	1.0	2.6	1.2	1.2	0.88	-0.05	-0.1	-0.6									
Nigeria	200	219	281	2.5	2.5	498,102	495,955	684,450	-0.5	3.4	2,386	2,259	2,475	-2.9	0.9	13.7	7.2	1.69	-1.37	-0.8	0.4									
Nigeria	15	16	20	2.4	2.1	22,223	23,234	38,049	4.7	5.0	1,445	1,455	1,915	2.2	2.8	1.3	2.1	-0.26	1.02	-0.5	-0.1									
Sierra Leone	6	6	7	2.7	2.5	4,943	5,088	7,524	3.1	4.0	764	749	864	0.7	1.4	14.9	10.4	1.91	-0.8	-0.8	0.8									
Togo	8	9	11	2.4	2.4	5,023	5,314	8,259	4.3	4.5	599	602	737	1.6	2.0	0.3	2.3	1.76	-0.89	-1.1	-0.6									

SUBMITTED STATEMENT BY HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA; ON BEHALF OF AMERICAN SOYBEAN ASSOCIATION

The American Soybean Association thanks the House Agriculture Committee's Livestock and Foreign Agriculture Subcommittee for the opportunity to provide written testimony to the hearing record for "A 2022 Review of the Farm Bill: International Trade and Food Assistance Programs." ASA, founded in 1920, represents U.S. soybean farmers on domestic and international policy issues important to the soybean industry. ASA has 26 affiliated state associations representing more than 500,000 farmers in 30 soybean-producing states.

International trade is one of the pillars of the U.S. soybean industry. Exports to foreign markets were more than 50% of U.S. soy production this last marketing year. Continued access to those existing markets, new markets, and international food aid markets are critical to sustaining U.S. soybean growers' success. To that end, ASA works to promote U.S. soy's quality and uses overseas through both its World Initiative for Soy in Human Health (WISHH)—ASA's long-term market development program—and partner organization, the U.S. Soybean Export Council (USSEC). Support from the Administration and Congress is vital to assure the free and fair trade needed to keep U.S. soybean growers competitive and bolster ASA's efforts with both WISHH and USSEC.

USSEC serves the U.S. soy family as our boots on the ground in soy markets overseas. Through a global network of international offices and strong support in the U.S., USSEC helps build a preference for U.S. soybeans and soybean products, advocates for the use of soy in feed, aquaculture and human consumption, promotes the benefits of soy use through education, and connects industry leaders. The activities of USSEC to expand international markets for U.S. soybeans and products are made possible through ASA's investment of cost-share funding provided by USDA's Foreign Agricultural Service, support from cooperating industries, and by producer check-off dollars invested by the United Soybean Board and various state soybean councils.

ASA participates in the farm bill's international food aid programs through WISHH. Knowing the essential role that access to protein plays in human nutrition, U.S. soybean growers founded WISHH in the year 2000 to serve as a catalyst in developing and emerging markets. WISHH brings the power of strategic partnerships to our unique market-systems approach. Local business leaders, governmental and non-governmental organizations as well as academic institutions join us in increasing demand and fueling economic growth for the sustained availability of nutritious and affordable human foods and livestock feeds. Over the past twenty years, WISHH has worked on the ground in developing and emerging markets, using dollars from farm bill programs such as Food for Progress and Food for Peace to deliver high-quality, nutritional soy protein to feed a global population.

The vital programs authorized in Title III of the farm bill, from the Agricultural Trade Promotion and Facilitation Program (ATPPF) to international food aid programs, are critical for the long-term success of U.S. soybean growers. We thank the Committee for the opportunity to share ASA's role in these programs, provide insight on perceived strengths and weaknesses, and offer recommendations in advance of the 2023 Farm Bill. We would also like to share ASA's written testimony as presented to a hearing of this Subcommittee November 17, 2021, "*Trade Policy and Priorities*."¹, which further outlines our overall trade policy and priorities.

Agricultural Trade Promotion and Facilitation Program

The long-term success of U.S. soy abroad would not be possible without the foresight of Congress to create public-private partnership programs at USDA to assist trade associations in promoting our products on a global stage. ASA is a longtime cooperator of these programs, particularly the Market Access Program (MAP) and the Foreign Market Development Program (FMD). Utilizing MAP and FMD funds, ASA—through WISHH and USSEC—has leveraged those dollars to increase market access, address technical barriers to entry, and create on-the-ground capacity and demand for U.S. soy.

Looking at our export numbers, the U.S. soybean industry is an excellent example of the success of these programs. Soybeans and soy products are America's leading agricultural export, with an export value of \$27.5 billion in 2021. A 2016 study commissioned by USSEC shows that international marketing activities conducted on behalf of U.S. soybean growers increased soybean exports each year by an average of

¹ <https://soygrowers.com/wp-content/uploads/2021/11/ASA-Testimony-to-House-Ag-trade-hearing-11-17-21.pdf>†

Editor's note: footnotes annotated with † are retained in Committee file.

993,600 metric tons (MT), or nearly 5%. For soybean meal and soybean oil, the average annual growth over that period was estimated to be somewhat larger at 15% (808,600 MT) for meal and 24% (149,600 MT) for oil.

These numbers translate to an additional \$29.60 in export revenue per \$1 spent on international promotion. At the producer level, that additional export revenue translates into a cost benefit ratio of \$10.10 additional grower profit per \$1 spent on international promotion. While this research was undertaken in advance of the 2018 Farm Bill, the results remain unchanged: International marketing activities contribute directly to increased exports and grower profitability.

U.S. soy has invested these dollars in a variety of projects across the globe. Recognizing the global demand for sustainably produced and verified soybeans, our industry used MAP dollars to create the U.S. Soy Sustainability Assurance Protocol (SSAP). SSAP is a benchmarking system that helps industry customers ensure U.S. soy is produced following a strong set of conservation regulations and best management practices. For Marketing Year (MY) 2021, the U.S. sold 28,432,763 MT of SSAP-verified soy. Every year, the number of SSAP-certified shipments to our export markets is only expected to increase. Eighty percent of U.S. soy shipments to the European Union are SSAP certified, and SSAP has recently passed independent benchmarking to confirm compliance with the European Feed Manufacturers' Federation (FEFAC) Soy Sourcing Guidelines 2021.

SSAP was also recognized for meeting the Olympic and Paralympic Games Tokyo 2020 Organizing Committee's sustainable sourcing code for agricultural products, the Global Seafood Alliance's Best Aquaculture Practices and the Consumer Goods Forum's Sustainable Soy Sourcing Guidelines.

U.S. soy has also used these funds to work in new and emerging export markets to grow the demand for U.S. soybeans, and we have seen great success. While we have carefully cultivated our largest export market, China, the past 5 years have also shown how important market diversification is for U.S. soy's long-term success. Using MAP and FMD dollars, our industry has invested in growing demand in export markets outside China.

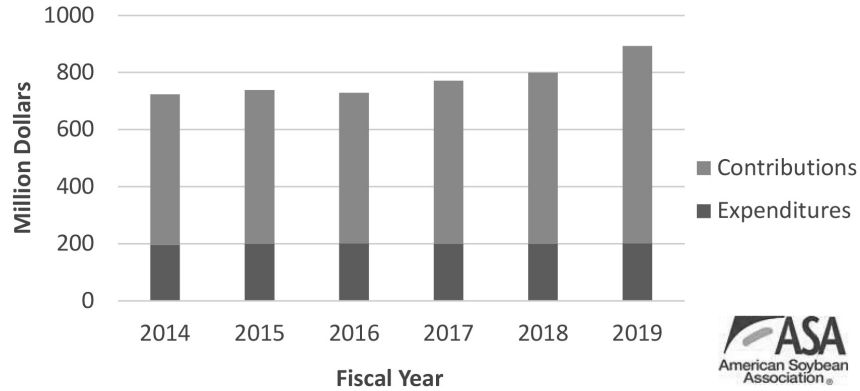
A great example is Egypt. Over the past 5 years, the demand for U.S. soy has increased 178%. In MY 2016/2017, we exported 0.7 million metric tons (MMT). By MY 2020/2021, that demand had increased to 2.67 MMT. USSEC has used MAP and FMD dollars on the ground in Egypt to facilitate trade missions with Egyptian buyers, engage in-country with the local poultry and aquaculture industries, and build an understanding of the quality of U.S. soy with Egyptian customers.

As demand in Egypt for chickens has increased, so too has the soybean crush capacity in-country. As its crush and feed sectors have evolved in recent years—especially since 2016—Egypt has moved from primarily being a soybean meal importer to importing whole soybeans, which has led to growth in its domestic crush industry. As its crush industry has grown, preference for U.S. soybeans has grown alongside it. During the same timeframe, aquaculture in Egypt grew more than 700%, and aquafeed demand has approached 2 MMT, with soy demand of 750,000 metric tons.

Due to these critical investments made possible by MAP and FMD, Egypt now sources more than 80% of its soybean imports from the United States.

These programs, however, are in desperate need of an increase in funding allocations. The MAP program was officially created in 1996, but authorization can be traced back to 1978, while FMD was created in 1955. Available data about total export market development funding and partner contributions ends in 2019. However, MAP and FMD funding has not changed since Fiscal Years 2006 and 1997, respectively. Over that same time, partner funding continually grew to be about twice the level of Federal dollars.

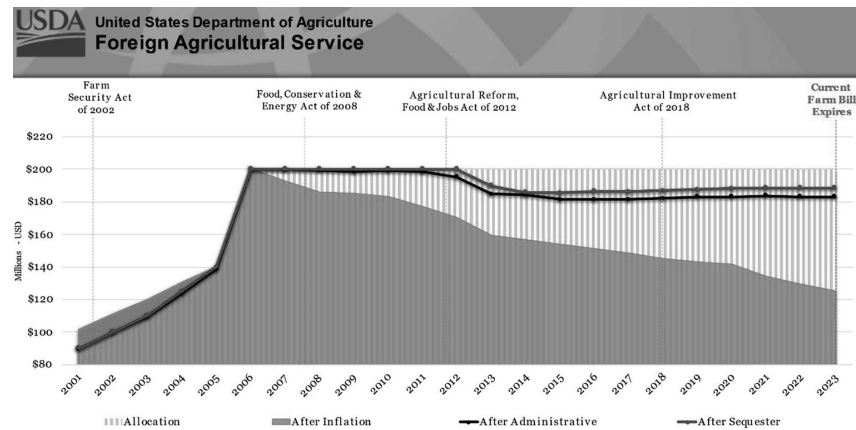
MAP and FMD Funding



Source: USDA FAS.

For FY 2021, 67 organizations received MAP funding and 21 received FMD funding. With the increase in the number of cooperators and adjustments for inflation, a steady budget of \$200 million annually for MAP means the full pool of funding available to cooperators is more akin to \$129 million.

Impacts on MAP Funding 2001–2023



Additional funding provided to these programs will offer real benefits to U.S. agriculture. ASA was awarded funding through the 2018 Agricultural Trade Promotion program, which was created to help U.S. agricultural exporters develop new markets and mitigate the adverse effects of other countries’ tariff and non-tariff barriers. While not a farm bill program, these dollars were utilized by USSEC to complement ongoing investments initially made by MAP and FMD in global markets. Nearly half of the resources allocated to U.S. soy was earmarked for the creation of long-term legacy institutions called Soy Excellence Centers (SECs). U.S. soy has now opened five SECs across the emerging market space where protein deficits continue to be a major regional concern for food security—and therefore national and international security.

One of those SECs was opened in Egypt and will celebrate its second anniversary October 2022. In those 2 years (Sept. 2019–Sept. 2021), 46 programs with 4,680 participants have been implemented. SEC programs include poultry and aquaculture related webinars, in-pond raceway system (IPRS) aquaculture demonstrations, and strong coordination with local industry.

This is one example of what could be done with additional funding, but there are many more projects waiting in the wings. U.S. soy has multiple projects that are shovel-ready and awaiting more resources.

In addition, it is clear that our international competitors are outspending us in the trade promotion arena. A recent study released by Texas A&M University shows that, under the European Union's Common Agricultural Policy (CAP), the EU allocated \$1.28 billion from 2014 to 2018 on wine promotion alone. That amounts to an average of \$256.4 million per year for one product, while the entirety of ATPF allocations is \$255 million annually.²

It is critical for the continued success of U.S. agriculture that Congress invest additional dollars in the Agricultural Trade Promotion and Facilitation Program in the 2023 Farm Bill. ASA strongly recommends doubling the minimum annual mandatory funding for the Market Access Program to \$400 million and the Foreign Market Development Program to \$69 million.

Export Credit Guarantee Programs

International trade is impossible without financing. In 2018, Congress extended authorization for USDA's export credit guarantee program (GSM-102) and the Facility Credit Guarantee Program (FGP). Both programs were created to promote the export of U.S. agricultural products by reducing the financing risks when selling to emerging and developing markets. GSM-102 facilitates the financing of agricultural product sales, while the FGP is aimed at the financing of agricultural-related facilities in countries where there is demand for U.S. agricultural products but limited infrastructure to meet that demand.

Investments by Congress in these programs help ensure the U.S. remains a leader in reliability as a top exporter.

U.S. soy has been a strong supporter of these programs since their inception, and to this day, we continue to support their full utilization. By investing in our export markets and increasing their capacity for financing and infrastructure investments, U.S. agriculture would win on two fronts: (1) Increased infrastructure developments in emerging markets would lead to increased demand and capacity for U.S. soy, and (2) Increased utilization of GSM-102 would lead to a higher volume of U.S. agricultural sales—including soy—in developing countries. ASA supports continued authorization of GSM-102 and FGP in the 2023 Farm Bill.

Food for Peace Title II

The U.S. Government has mandated the use of U.S. commodities in the historic P.L. 83-480 program since its creation after World War II. With ongoing humanitarian crises in Ukraine, Yemen, Syria, Afghanistan, and Ethiopia, among others, programs like Food for Peace Title II's distribution of food aid are an act of U.S. diplomacy. U.S. farmers play an important role in growing crops that meet the high quality requirements for these foods to remain safe for people to eat months after they are shipped from the U.S.

WISHH has recently partnered with companies like Edesia Nutrition that produce ready-to-use therapeutic foods (RUTFs) and ready-to-use supplements (RTUSs) with U.S.-grown soy flour for more than 60 countries around the world. Edesia forecasts it will use 7.5 million pounds of soy flour this year, requiring the equivalent of 170,000 bushels of soybeans. Another WISHH partner, SEMO Milling/Tiger Soy, built a new processing plant in Mexico, Missouri, to meet the demand for soy flour in U.S. global food security programs.

ASA supports continued funding of the Food for Peace Title II program to allow U.S. soy to provide direct humanitarian assistance and valuable nutrition in new markets.

Food for Progress

USDA's Food for Progress (FFPr) funding has been an essential component of WISHH's mission to connect development and trade and thus create long-term demand and markets for U.S. soy. In 2015, WISHH kicked off a \$14.8 million FFPr poultry value chain project in Ghana to increase consumption of improved poultry feed. The Assisting the Management of Poultry and Layer Industries with Feed Improvements and Efficiency Strategies (AMPLIFIES) project worked along the value chain, starting with post-harvest loss to ensure locally produced grain was dried and stored properly to reduce aflatoxin and mycotoxin levels. The project worked with local feed mills and Ghanaian universities to increase feed testing capabilities that resulted in higher quality feeds available on the market. While working with poultry producers, the project held feeding demonstrations for layer and broiler production, focusing on proper feeding rations, biosecurity measures, best management

²Ribera, Luis A., and Bart Fischer. 2022. "Analysis of agricultural trade promotion and facilitation in the 2018 Farm Bill." *Applied Economic Perspectives and Policy* 1-9. <https://doi.org/10.1002/aepp.13255>.

practices and the inclusion of soy as the preferred protein in the feed ration. To round out the value chain, AMPLIFIES developed a consumer education campaign to increase the consumption of eggs. During the life of the project, per capita egg consumption increased from 172 in 2016 to 235 in 2020.

However, because commodity prices dropped after 2015, the project was not able to meet its full approved budget through monetization, reducing the operational budget by approximately \$2.5 million, and therefore was forced to end project activities early. Due to Ghanaian import policies and duties, as well as production and processing capabilities, monetization sales of soybeans and soybean meal only accounted for 11,200 MT of the total 34,700 MT sold for project proceeds.

In 2018, WISHH launched the FFPr-funded Commercialization of Aquaculture for Sustainable Trade (CAST) project in Cambodia at \$17.1 million. The CAST project strengthens the use of high-quality feed in fish production, thereby helping build a profitable market system for Cambodian aquaculture products. Through CAST, Cambodia's private-sector and universities work closely with U.S. soybean growers and businesses, as well as American academic institutions and non-governmental organizations. CAST's activities and project outcomes align with Cambodia's strategy to increase productivity and profitability through Good Aquaculture Practices and maintaining the quality and safety of fish raised in Cambodia. CAST works along the value chain to train fish producers on improved management and production practices, sanitary and phytosanitary standards, and promote the utilization of high-quality feed in the industry. The project was instrumental in creating the Cambodia Aquaculturist Association, a new national industry group whose 600+ members represent fish producers, feed mills, processors, and government and private-sector entities. The U.S. soy meal monetized to fund the project was the first sold bulk in barges in Cambodia, with 41,800 MT of U.S. soybean meal sold to Cambodian companies.

However, there remains an issue with the complexity of monetization requirements in international food aid programs. While monetization can provide new trade opportunities, the monetization process to support large operating budgets is complicated and subjects projects to the whim of world markets and prices that can negatively impact the project's ability to be planned effectively and produce desirable outcomes. ASA recommends the next farm bill look at additional opportunities for flexibility in monetization requirements.

While WISHH has a strong desire to continue to utilize FFPr in its market development and expansion strategy, the program's recent revisions to its strategic plan raise concerns for U.S. soybean growers. Starting in 2019, the FFPr priorities shifted away from projects supporting the export and market development of U.S. commodities and moved to the support and expansion of nuts, spices and coffee grown abroad to be imported to the U.S. This move has left many cooperators unable to engage in FFPr projects and use these projects to build trade demand for U.S. commodities. Furthermore, the 2021 FFPr was awarded to a sole entity, and the sale of wheat to the Government of Sudan was an unprecedented—and concerning—step in this program, which is designed to focus on strengthening agricultural productivity and expanding trade of agricultural products.³

Language in the Fiscal Year 2022 omnibus appropriations report addressed Congress' concern regarding this award and the precedent it could set by allocating an entire year's worth of funding to a single entity. We respectfully request the Committee's attention to this issue in the next farm bill to ensure the approach is not repeated in the future.

McGovern-Dole Food for Education

WISHH has worked in institutional and school feeding throughout Sub-Saharan Africa and Latin America through a variety of USDA funding sources, in addition to leveraging outside funding. McGovern-Dole projects allow WISHH to reach new markets for U.S. soy while helping close the protein gap and addressing nutrition challenges in developing markets. In 2015, WISHH joined Plant Aid in a McGovern-Dole Food for Education project in Mozambique. The project included a comprehensive school feeding project, complemented by a major literacy component, as well as child health, nutrition education, teacher training, water, and sanitation components. The daily school feeding meal included a porridge made from a corn-soy blend to 74,000 students across 270 schools. WISHH led a comprehensive nutrition education campaign in the beneficiary districts that allowed the community to learn about the importance of protein. WISHH also trained 3,228 food preparers from the 264 target schools in hand washing, safe food preparation and storage practices,

³<https://soygrowers.com/wp-content/uploads/2021/02/2-3-2021-Food-for-Progress-letter-FINAL.pdf>.

surpassing its goal of 1,320 food preparers. Of the 3,228 participants, 3,144 were females, a target audience of the program.

Available commodities for FY22 food aid solicitations (*Appendix H* of the Notice of Funding Opportunity) include corn-soy blend, corn-soy blend plus, soybean meal, soybean oil, soyfortified bulgur, and soy-fortified cornmeal, but soy flour and textured soy protein (TSP) are omitted. This is concerning, as soy flour and TSP can easily be added to existing culturally appropriate school meals to provide additional protein. USDA has offered no explanation as to why these two products are excluded from McGovern-Dole. Adding these two additional soy products to the commodities basket would allow for additional protein consumption and help build preference for including soy in school meals. ASA recommends adding soy flour and TSP to the list of eligible commodities available for donation under McGovern-Dole.

Conclusion

Over the past year, ASA has worked intensively with grower leaders and other soybean farmers across the U.S. to deeply analyze the efficacy of 2018 Farm Bill programs, including the Trade Title. While that work is not yet finalized, the recommendations in this written statement are consistent with grower feedback and with ASA's policy resolutions.

As this Committee deliberates the next farm bill, ASA encourages you to remember the importance of international trade to the U.S. agricultural community. U.S. soybean growers are proud to provide a sustainable source of high-quality protein, which is vital to feeding millions around the world, and we thank the Committee for its prior investments in USDA's trade programs and again, for the opportunity to comment on these programs in the upcoming 2023 Farm Bill. ASA looks forward to working with you on these important issues.

SUBMITTED LETTER BY HON. DUSTY JOHNSON, A REPRESENTATIVE IN CONGRESS
FROM SOUTH DAKOTA

April 5, 2022

Hon. KATHERINE TAI,
United States Trade Representative,
Washington, D.C.;

Hon. THOMAS J. VILSACK,
Secretary of Agriculture,
Washington, D.C.

Dear Ambassador Tai and Secretary Vilsack,

Thank you for prioritizing robust implementation and enforcement of the United States-Mexico-Canada Agreement (USMCA), particularly its dairy provisions. Harnessing the full use of USMCA's expanded access for U.S. dairy exports remains a key priority for dairy farmers and manufacturers employing thousands of Americans in our districts and across the country. We appreciate the strong action taken by the Administration in moving forward with USMCA's first dispute settlement case, which found that Canada is improperly limiting access to its dairy market in contravention of USMCA. Translating this win into an outcome that delivers the full benefit of the agreement is vital for America's dairy industry.

We noted with interest Canada's recently proposed allocation and administration policy changes for dairy tariff-rate quotas (TRQs). We believe this proposal would continue to fall short of what USMCA requires. Accordingly, we urge you to insist on much deeper reforms to bring Canada's dairy TRQ allocation system into compliance with its USMCA commitments. For instance, Canada's proposal continues to exclude major swaths of its food and agricultural sector from the TRQ by blocking access of retailers and food service companies. Additionally, its proposed approach to allocating shares of access would continue to deliver the bulk of the TRQ volumes to U.S. dairy manufacturers' Canadian competitors. In short, Canada's proposal amounts to little more than window dressing as it appears designed to effectively preserve the *status quo* of who can bring in the vast majority of U.S. dairy products under USMCA's dairy TRQ.

As the first dispute resolution case under the USMCA, we know you understand well that this dispute will set a powerful precedent. The decisions the United States Government makes next will send a clear signal to our trading partners regarding future dispute panels and the degree of compliance we will require. A deal's a deal; it's not too much to ask that our trading partners live up to their end of the bargain. That is why it is critical that this compliance stage of the USMCA dairy case demonstrate that the USMCA enforcement process works—not just to deliver the right finding, as it did in January—but to ensure faithful implementation of the overall

agreement and drive real, tangible reforms that are seen on store shelves, to the benefit of American dairy producers and manufacturers, as intended.

We appreciate your continued commitment to robust USMCA enforcement, and we look forward to the day where American farmers, manufacturers, workers, and others benefit fully from this trade agreement that our nation has so painstakingly negotiated.

Sincerely,



Hon. RON KIND,
Member of Congress



Hon. TOM REED,
Member of Congress



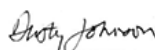
Hon. ANTONIO DELGADO,
Member of Congress



Hon. GLENN THOMPSON,
Member of Congress



Hon. SUZAN K. DELBENE,
Member of Congress



Hon. DUSTY JOHNSON,
Member of Congress



Hon. JIM COSTA,
Member of Congress



Hon. DAVID G. VALADAO,
Member of Congress

SUBMITTED QUESTION

Question Submitted by Hon. David Rouzer, a Representative in Congress from North Carolina

Response from Daniel B. Whitley, Administrator, Foreign Agricultural Service, U.S. Department of Agriculture

Question. Food for Progress is an excellent long-term international development and market development program administered by USDA. However, I am concerned with Food for Progress's recent strategic plan, which has emphasized key priority areas around cacao, coffee, spices, Sanitary and Phytosanitary Standards (SPS), Trade Facilitation Agreement (TFA), and Climate Smart Agriculture (CSA).

I am concerned that focusing on commodities such as cacao, coffee, and spices—commodities that we do not produce domestically—will exclude the majority of U.S. cooperators from fully utilizing Food for Progress in their international development projects.

Can you speak to how Food for Progress developed this narrow set of priorities, and how these priorities can be expanded and improved upon in advance of the FY 2024 funding opportunity to allow more U.S. cooperators to participate?

Answer. Using Commodity Credit Corporation (CCC) funds, Food for Progress (FFPr) projects sell donated U.S. agricultural commodities overseas in target markets and use the proceeds of these sales to fund agricultural development projects. It is through these monetization sales that U.S. agricultural commodities are utilized to generate proceeds. USDA communicates with cooperators regularly, while also maintaining a transparent and clear competitive bidding process of the commodities. Soy, rice, and wheat comprise the bulk of FFPr projects' commodity utilization. Cooperators often ask for updates and periodically engage USDA program administration staff to ask questions and provide feedback. In FY21, FFPr utilized 440,890 MT of U.S. grown wheat, 162,050 MT of U.S. grown oilseeds and 78,640 MT

of U.S. grown rice. Over the preceding 5 years, FFPr monetized an average of 242,056 MT in U.S. agricultural commodities annually.

In alignment with the FFPr statute, the two highest level program objectives are increased agricultural productivity and expanded trade of agricultural products in developing countries and emerging democracies. Starting in 2019 FFPr, developed a slate of thematic areas for interventions, which amplified the impact of our investments by focusing more thoroughly and strategically on a select group of project themes rather than implementing a series of one-time projects. The overarching themes included interventions in sanitary and phytosanitary systems (SPS), trade facilitation and in high value crops that are not grown in the United States and don't compete with U.S. agriculture, but are important products for the American consumer. These crops are largely grown and produced in developing countries, but also have reflected a disparity in which local farmers earn an inequitable part of that value chain. Thus, FFPr activities seek to address the value chain limitations and inequities, to increase household income and reduce food insecurity. In FY22, FFPr added climate-smart agriculture as a thematic area.

Each year, with a focus on both strategic decisions (*e.g.*, thematic areas) and that year's project cycle, USDA coordinates with stakeholders, researches and analyzes global development data, conducts Requests for Information (RFIs), and holds public meetings that are open to the private-sector, cooperators, and the private-voluntary organization (PVO) community. It is through these engagements and meetings that cooperators provided feedback or suggestions on the current and future thematic areas. In addition, information is provided regarding the application process for current awardees and new applicants to facilitate and encourage eligible organizations to apply. As USDA seeks to develop its slate of thematic areas for FY23 and beyond, we will continue our outreach to collect input from the stakeholder community. Further, we will continue our current practice of welcoming proposals for projects that are not specifically included in predetermined thematic areas through the Notice of Funding Opportunity to expand upon thematic areas as appropriate.

A 2022 REVIEW OF THE FARM BILL
(THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM)

THURSDAY, APRIL 28, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, Costa, McGovern, Spanberger, Hayes, Delgado, Sablan, Kuster, Plaskett, O'Halleran, Carbajal, Lawson, Craig, Harder, Axne, Schrier, Pannetta, Thompson, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Davis, Allen, Kelly, Bacon, Johnson, Baird, Cloud, Mann, Feenstra, Miller, Cammack, and Letlow.

Staff present: Lyron Blum-Evitts, Chu-Yuan Hwang, Ashley Smith, Caleb Crosswhite, Jennifer Tiller, John Konya, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. Welcome. This hearing will now come to order. Welcome, and thank you for joining us at today's hearing entitled, *A 2022 Review of the Farm Bill: The Supplemental Nutrition Assistance Program*. After brief opening remarks, Members will receive testimony from our distinguished witness today, and then the hearing will be open to questions. And I will start first with my opening statement.

Good morning, everyone, and welcome to another important hearing, which is the continuation of our work to review the 2018 Farm Bill and prepare for the 2023 Farm Bill. Today's hearing will review the 2018 Farm Bill provisions related to a very important USDA program, the Supplemental Nutrition Assistance Program, also known as SNAP.

SNAP is one of the most impactful programs that we work on in this Committee. It is the nation's largest anti-hunger program. It addresses the food insecurity of those most in need in our country. In 2020, 10.5 percent of U.S. households or 13.8 million Americans were food-insecure. And the COVID-19 pandemic made it very difficult for many families to even afford the basic necessities, especially including food.

But thankfully, throughout the pandemic, SNAP has worked as it should, serving as an economic stabilizer for our nation. In 2020,

SNAP is estimated to have lifted 2.9 million Americans out of poverty and ensured that millions of our friends, families, and neighbors could put food on their tables for their families, despite the difficult times we were facing. And as we grapple with the ongoing impact of this pandemic and new challenges to our food system, including from the Russian—terrible, criminal—invasion of Ukraine, I know SNAP will continue to be a critical lifeline for low-income Americans, ensuring they are able to purchase a nutritionally adequate diet.

In 2018, our farm bill passed with a strong bipartisan support, including many SNAP-related provisions. One of the most impactful has been the mandate that USDA reevaluate the Thrifty Food Plan. The resulting 2021 Thrifty Food Plan was the first in 5 decades to not be held cost-neutral, allowing it to truly reflect the cost of an adequate diet. And thanks to the 2018 Farm Bill, low-income Americans receiving SNAP benefits on average received \$36.24 more per person per month or about \$1.19 more per person per day. And in my own district, Georgia's 13th District, the latest data shows that more than 35,000 households participated in SNAP, or 13 percent of all households in my district, and each of them are seeing an increase in their SNAP benefits thanks to the Thrifty Food Plan reevaluation.

And it is not just Georgia. The impact these increases in benefits are being felt across every community in our nation, including rural communities, which participate in SNAP at a higher rate and experiences a larger economic impact from SNAP benefits spending than even in our urban areas.

Additionally, the 2018 Farm Bill included important provisions impacting SNAP employment and training, the quality control system, nutrition education, and much more. I look forward to hearing from our distinguished panel today about these provisions, as well as future opportunities to maintain and improve this critical program.

One particular area of interest for me looking forward is veteran hunger. Research has found that veterans have a 7.4 percent greater risk for food insecurity than non-veterans, and rates are even higher among our veterans with disabilities, 33.6 percent of whom face food insecurity. And that is why I am working closely with our Subcommittee Chairwoman on this, the gentlelady from Connecticut, who is spearheading excellent legislation to address this, and we will hear more from her on this later.

Representative Hayes is the Chairwoman of our Subcommittee on Nutrition, Oversight, and Department Operations, and she is doing an excellent job. She has introduced bipartisan legislation to make it easier for veterans with disabilities to access SNAP, the Feed Hungry Veterans Act of 2022 (H.R. 7272), of which I am a proud cosponsor, co-leading with that bill. And, as I said, we will hear more from the Chairwoman on this later.

I look forward to working with all the Members of our Committee on this important legislation, and I hope this hearing will provide us all an excellent opportunity to evaluate ways that we can work together to improve SNAP by making it more accessible for Americans facing food insecurity. Thank you again. We look forward to our panelists.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning and welcome to another important hearing, which is a continuation of our work to review the 2018 Farm Bill and prepare for the 2023 Farm Bill.

Today's hearing will review the 2018 Farm Bill provisions related to a very important USDA program: the Supplemental Nutrition Assistance Program, also known as SNAP.

I believe that SNAP is one of the most impactful programs that we work on in this Committee. I look forward to discussing how SNAP—as the nation's largest anti-hunger program—addresses the food insecurity of those most in need in this country.

In 2020, about 10.5 percent of U.S. households, or 13.8 million Americans, were food-insecure. As we know, the COVID-19 pandemic made it difficult for many families to afford basic necessities, and in many cases, this included food.

Thankfully, throughout the pandemic, SNAP has worked as it should, serving as an economic stabilizer for our nation. In 2020, SNAP is estimated to have lifted 2.9 million Americans out of poverty and ensured that millions of our friends, family, and neighbors could put food on their tables, despite the difficult times we were facing.

As we grapple with the ongoing impact of the pandemic and new challenges to our food system resulting from the Russian invasion of Ukraine, I know SNAP will continue to be a critical lifeline for low-income Americans, ensuring they are able to purchase a nutritionally adequate diet.

The 2018 Farm Bill, which passed with strong bipartisan support, included many important SNAP-related provisions.

One of the most impactful has been the mandate that USDA reevaluate the Thrifty Food Plan. The resulting 2021 Thrifty Food Plan was the first in 5 decades to not be held cost neutral, allowing it to truly reflect the cost of an adequate diet.

Thanks to the 2018 Farm Bill, low-income Americans receiving SNAP benefits, on average, receive \$36.24 more per person per month—or about \$1.19 more per person per day.

In my District—Georgia's 13th—the latest data shows that more than 35,000 households participated in SNAP, or 13 percent of all households in my District, and each of them are seeing an increase in their SNAP benefits thanks to the Thrifty Food Plan reevaluation.

And it's not just in Georgia, the impact of that increase in benefits is being felt across every community in the U.S., including rural communities, which participate in SNAP at higher rates and experience a larger economic impact from SNAP benefit spending than urban areas.

Additionally, the 2018 Farm Bill included important provisions impacting SNAP employment and training, the quality control system, nutrition education, and more.

I look forward to hearing from our distinguished panel today about these provisions, as well as future opportunities to maintain and improve this critical program.

One particular area of interest for me, looking forward, is veteran hunger. Research has found that veterans have a 7.4 percent greater risk for food insecurity than non-veterans. And rates are even higher among veterans with disabilities, 33.6 percent of whom face food insecurity.

Representative Hayes—the Chairwoman of our Subcommittee on Nutrition, Oversight, and Department Operations—has introduced bipartisan legislation to make it easier for veterans with disabilities to access SNAP—the Feed Hungry Veterans Act—and I am proud to be a co-lead of that bill.

I look forward to working with all the Members of our Committee on this important legislation, and I hope this hearing provides us all an opportunity to evaluate ways we can work together to improve SNAP by making it more accessible for Americans facing food insecurity.

Thank you again to the Members and witnesses for being here today.

With that, I'd now like to welcome the distinguished Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for any opening remarks he would like to give.

The CHAIRMAN. And with that, I would like to now welcome my good friend, our distinguished Ranking Member from Pennsylvania, Ranking Member Thompson.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Mr. Chairman, thank you so much. Good morning, everybody. Welcome, Deputy Under Secretary Dean and Administrator Long. Administrator, I hear this is your first appearance at a Congressional hearing, and so we are glad to have you here and welcome to the historic Agriculture Committee hearing room. And I see Associate Administrator Shahin has accompanied you both. Ms. Shahin, please accept my heartfelt gratitude for your work at the Department, and I understand you are going to be retiring. And both your presence and your performance are going to be sadly missed. Thank you for everything you have done, and I wish you a peaceful, easy retirement.

Moving on to say this hearing is long overdue is an understatement, so I am so glad we are all here today. The agency which occupies more than 80 percent of this Committee's spending has gone unchecked for nearly 4 years. Each section of title IV of the 2018 Farm Bill has made nominal changes to a program that has since exploded to serve more than 40 million individuals at a current cost of roughly \$9 billion per month.

And what frustrates me most at this moment—and the Nutrition Title is important to me as a former Chairman of the Nutrition Subcommittee in the 2018 Farm Bill. I am very frustrated at this moment that my Democratic colleagues have already drawn a line in the sand that this program will not be touched in the next reauthorization of the farm bill. That is why we have reauthorizations, to make sure that we are getting it right and that we are making adjustments where needed. How can we be so certain everything in title IV is perfect or untouchable?

Now, I disagree, and I am sure that we will hear today that there are things we can improve and things that we can change. And quite frankly, on the Agriculture Committee being open-minded and preparing for the next farm bill, any farm bill is a really good state of mind. Being shortsighted on policy improvements shortchanges the millions of households who depend on SNAP when their lives take a turn, when they find themselves in financial distress, often for short periods of time.

So, despite my colleagues' narrow outlook, I think we need to contemplate SNAP through four principles, particularly as we shift from emergency spending and administration to more targeted informed programming. First, we need to further explore how do we serve recipients through innovation and flexibility? If the pandemic has taught us one thing, it is there is no one way to serve families in need.

The second principle, we must think about the best ways to guide recipients to independence through employment, education, and training, while providing for their nutritional support. Now, waivers related to work under the former Administration were logical. They are now clearly keeping employable individuals idle and disengaged, and it is time to talk about reemployment with a specific focus on those who have left the labor force.

Third principle, we can't deny program integrity has been compromised. I want to work with the Department to return to and maintain the virtues of SNAP. That includes normal modes of data

collection and normal modes of analysis and dissemination of information to ensure the responsible use of program funds.

And a final principle I would offer up that should guide our work, guides my work, and last and perhaps most importantly, we must come together to improve access and promote healthy foods and improve nutrition. Employment, healthcare costs, and general longevity are highly dependent on the foods that we consume. Together with modernized nutrition education initiatives, the nutrition research funding secured in the Consolidated Appropriations Act of 2021 (Pub. L. 116–260), and the existing library of research on healthy eating, USDA is uniquely positioned to improve the nutrition of millions of households, not just those deemed healthy.

I think my colleagues across the aisle can agree with each of these principles. Where we diverge is how to preserve the program for those in actual need without regulatory loopholes and fuzzy interpretations of the law, both of which exploit the very intent of the program.

Now, where we diverge is the reality that this one title will cost taxpayers nearly \$1 trillion over the next 10 years. With this exorbitant spending increase, namely because of the less than transparent and questionable Thrifty Food Plan update, the Biden Administration and the current Majority consciously put a colossal financial and political target on any future farm bill, compromising not only Nutrition Title but the 11 other titles which support and protect every farmer, rancher, forester, and rural community, the very people that actually provide the food that we try to deliver for nutrition support.

Adding insult to injury, many of us learned of the Thrifty Food Plan scheme through a choreographed effort by pro-poverty advocates and their media allies. Beginning on January 22, 2021, more than three dozen outlets, including the *Washington Post*, *NBC News*, *Bloomberg*, *CNN*, and *CBS News* uniformly touted the Department's work to rapidly proceed with the egregious TFP update.

And while we will continue to debate this attempt at executive overreach, I do want to ask one thing of you, Madam Deputy Under Secretary, just to be more forthcoming. As the Ranking Member of this Committee, I prefer to learn directly from the Administration, not lobbyists or reporters or the internet.

And last, I do hope today allows for some conversation on pandemic-related policies and spending. Mr. Chairman, I ask unanimous consent to submit for the record an April 15th timely article by *The Wall Street Journal* Editorial Board entitled, *The Eternal COVID Emergency*.

[The article referred to is located on p. 817.]

The CHAIRMAN. Without objection.

Mr. THOMPSON. Thank you, Mr. Chairman. I remain concerned pandemic aid is set to become endemic aid and that various issues caused by this Administration's own actions and, at times inaction, have caused my colleagues and their mouthpieces within the media to think emergency allotments or SNAP-related waivers should be carried on in perpetuity, and I beg to differ.

With that in mind, I also look forward to an implementation update on each of the relevant sections of the 2018 Farm Bill and the agency's timeline to implement any outstanding provisions. I hope

we can have an honest conversation about what is working and what is not working and how can we move forward.

Thank you again, Ms. Dean and Ms. Long. And with that, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, Ranking Member. And now, I would like to welcome the distinguished Nutrition, Oversight, and Department Operations Subcommittee Chairwoman, the gentlewoman from Connecticut, Mrs. Hayes, for your opening statement.

**OPENING STATEMENT OF HON. JAHANA HAYES, A
REPRESENTATIVE IN CONGRESS FROM CONNECTICUT**

Mrs. HAYES. Thank you, Mr. Chairman, Ranking Member Thompson, and this Committee, for hosting this very important hearing, and thank you to our guests from the USDA, Deputy Under Secretary Dean and Administrator Long, for joining us today. We really appreciate your time and expertise.

I want to first take the opportunity to frame this conversation. The 2023 Farm Bill will not be like any other farm bill. It will be a seminal historic piece of legislation. Over the past 2 years, we have seen our communities struggle with food insecurity caused by an unprecedented global crisis. We have also seen communities come together to implement creative solutions from expanding the capacity of food banks to partnering with local farms to ensuring that children can access school meals through electronic benefits in non-congregate settings. This farm bill is our first opportunity to recognize the unique challenges that many people face and our commitment to our communities to have permanent solutions. It is our first chance to respond to the glaring gaps in nutrition policy highlighted so clearly through the past 3 years with long-term improvements and solutions. Of course, the Supplemental Nutrition Assistance Program, or SNAP, will be central to that effort.

The vital importance of SNAP is not theoretical. I have experienced firsthand how the program gives people stability when they are facing life's challenges and have brought recipients before my Subcommittee to share their stories before Congress. I believe wholeheartedly in the mission of SNAP, the life-changing impact it has on recipients, and the incredible support it provides our national economy and food systems.

SNAP is a highly responsive program which serves as a stabilizer in times of economic downturn, something we saw clearly during the pandemic. It provides economic stimulus to households in every community. SNAP is a targeted program which serves the lowest-income Americans, incentivizes work, and provides long- and short-term health benefits to those who participate.

As a result of the 2021 Thrifty Food Plan reevaluation, mandated by the last farm bill, the impact of SNAP is growing as recipients receive more adequate benefits. Specifically, an average of \$1.19 more per person per day. This is modest, but the impact increases in our communities and has made tangible improvements to the everyday lives of my neighbors.

However, we know that there are still people who are falling through the cracks. USDA research has found that veterans in particular face a greater risk for food insecurity than non-veterans. On our Subcommittee, Rep. Bacon and I had a hearing last year on the

levels of veteran hunger that permeate our communities. I heard directly from veterans on how the lack of access to the SNAP program negatively impacts their lives, their ability to look for work, their mental health, and their nutrition needs. Their stories echoed the research which shows that an unacceptable 33.6 percent of disabled veterans are food-insecure. That is not a statistic that any of us should be proud of.

After the hearing, I began working on a legislative fix to address the issue, and I introduced the bipartisan Feed Hungry Veterans Act of 2022 with the support of Chairman Scott and Delegate Aumua Amata Coleman Radewagen. My bipartisan bill will address veteran hunger by making it easier for veterans with disabilities to access SNAP benefits.

In addition to exploring this issue further, I look forward to hearing more today from Deputy Under Secretary Dean and Administrator Long about the provisions in the 2018 Farm Bill, the status of implementation, and recommendations for the upcoming farm bill. As the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations, it is critical for me to hear from USDA about how we stabilize and sustain nutrition programs and how we can improve them in the upcoming farm bill.

We spend a lot of money on a lot of programs in Congress. Programs that feed people have to be included in those numbers. I don't know about schemes or media plots, but what I do know is that I have hungry people in my district, and as their Representative, I am going to make sure that I can do everything that I can to close those gaps because most of those people are children.

I thank you again, Mr. Chairman, for holding this Committee hearing today and I look forward to hearing from the panel who has joined us. And with that, I yield back.

The CHAIRMAN. Thank you, Chairwoman Hayes.

And now I would like to welcome the distinguished Nutrition, Oversight, and Department Operations Subcommittee Ranking Member, the gentleman from Nebraska, Mr. Bacon.

Mr. BACON. Thank you.

The CHAIRMAN. Please give your opening statement.

**OPENING STATEMENT OF HON. DON BACON, A
REPRESENTATIVE IN CONGRESS FROM NEBRASKA**

Mr. BACON. Thank you, Mr. Chairman. I appreciate it.

I appreciate the opportunity to share some thoughts today. I also want to thank the Deputy Under Secretary Dean and Administrator Long for being here.

I would like to just start by saying we are so blessed to live in this great country. We are the greatest of nations. Our free market system and our freedoms have produced more prosperity than any nation ever has had. We have elevated more people out of poverty than any other country, and so we should keep that in mind. And we, as a great nation, we want to live up to our values and our morals and provide a good safety net to protect our citizens.

Our SNAP is a part of that safety net, and it is intended to be a supplement, but not 100 percent subsidy to offset costs. I feel like we have to stress that periodically because some folks want to treat it as more than just a personal payment of the costs.

So, as we think of the next farm bill and really the future of SNAP, I echo the Ranking Member's comments in that we need to have real conversations about how to make this program better. We look to our taxpayers, to those who use the program, to make it more efficient, to make it more effective, and we want to ensure that it is providing a hand up, and not just a handout. We want to help people get out of poverty. And as the Ranking Member said, too, we just can't draw a line in the sand to say this program is untouchable. That is not how good policy comes about. So as the agency walks through the implementation updates, I hope my colleagues think through areas for improvement and how to use this magnificent amount of money that we have and to do so more efficiently and better.

The anecdotes I hear about some of these non-government organizations that serve as the intermediary, having outlandish administrative expenses, must be stopped. We should review that. I think our taxpayers expect us to take a look at that and reduce those costs.

And last, for the sake of our country, our military readiness, and the healthcare of our system and for our young adults, we need to do a better job and focus on how to target and make healthy eating habits better. We need to stress the education here. Seventy-two percent of our young adults today do not qualify to join the military, mainly for fitness, and so I bring this up not because of the military point but it is for the health and the future of these young adults and we want them to have a better future. So, this is a problem our country needs to look at and tackle.

So, I hope the conversation today lends to this focus and does better. And I would also like to just echo Chairwoman Hayes, who I work with on the Nutrition Subcommittee about the veterans and SNAP. I am on the Armed Services Committee as well, and we want to look at enlisted pay and adjust it. There is no reason why our junior enlisted should qualify for SNAP. We have to do better there.

So, with that, I yield back, Mr. Chairman, and I appreciate the time.

The CHAIRMAN. Thank you, Congressman Bacon.

And now the chair would request that other Members submit their opening statements for the record so the witness may begin her testimony and to ensure that there is ample time for questions.

[The prepared statement of Ms. Adams follows:]

PREPARED STATEMENT OF HON. ALMA S. ADAMS, A REPRESENTATIVE IN CONGRESS
FROM NORTH CAROLINA

The United States Supplemental Nutrition Assistance Program (SNAP) is the nation's most extensive Federal food aid program. Administered by the Department of Agriculture, SNAP provides food assistance to those who need it most, including working families, veterans, active-duty military members, seniors, college students, and refugees. SNAP's positive impact is felt by recipients and the American economy alike: according to the Center on Budget and Policy Priorities, SNAP assistance immediately benefits families by bridging temporary periods of unemployment, fam-

ily crises or recessions.^{1*} Today, SNAP serves as a cornerstone of our country's social safety net.

The 2023 Farm Bill offers a chance to strengthen the SNAP program and provide the support needed to meet the needs of hard-working Americans. The devastating ramifications of the COVID-19 pandemic have proven that current SNAP allotments do not meet the life-sustaining needs of its recipients.

To meet those needs, I introduced the Closing the Meal Gap Act of 2022, building upon a 5 year process with stakeholders, agencies, and fellow Members of Congress.² I am proud to sponsor this legislation with Nutrition Subcommittee Chair Jahana Hayes.

No one should have to wonder where their next meal will come from. And yet, the latest Census Household Pulse Survey shows that more than 20 million Americans struggle with food insecurity in the richest country in the world.³ Despite the Biden Administration renewing its Federal public health emergency declaration regarding the coronavirus pandemic, emergency allotments for SNAP and other supplemental nutrition programs have expired in nearly a dozen states.⁴

To add insult to injury, high levels of inflation has severely impacted SNAP benefits. Updated yearly, the next adjustment will not take effect until the next fiscal year. As a result, SNAP recipients continue to receive benefits based on the cost of food from June 2021. According to the Food Research and Action Center, SNAP households are under immense pressure to figure out how to cope with what equates to losses amidst current and future food prices this year.⁵

The Closing the Meal Gap Act will help to address these issues by raising the baseline benefit for all SNAP households and allocating more funds to those with large medical and housing expenses. The Closing the Meal Gap Act will increase benefits by incorporating the Low-Cost Food Plan into the SNAP formula instead of the Thrifty Food Plan to better consider how much working Americans spend on food. Furthermore, the Act will eliminate eligibility limits and unrealistic barriers by permanently authorizing the standard medical deduction in every state for seniors and disabled individuals applying for SNAP benefits at a minimum of \$140.⁶ Individuals with high expenses could continue to apply for a higher, itemized medical deduction under the plan.

Other barriers the Closing the Meal Gap Act would eliminate include a cap on the Excess Shelter Deduction in the SNAP formula for all households to consider the cost of living for SNAP recipients in areas with high rent and utilities and the elimination of time-limits on benefits for all Americans.⁷ By passing this Act, Congress can ensure that the USDA works within their own motto: "do right and feed everyone."

Food security and equity are and should not be partisan issues. Leaders across the country are urging Congress to pass the Closing the Meal Gap Act and continue the fight against hunger.

Let me introduce our distinguished panel. Our witnesses today is Ms. Stacy Dean, who is the Deputy Under Secretary for Food, Nutrition, and Consumer Services, at the United States Depart-

¹"SNAP Has Responded to the Economy As Designed," † Center on Budget and Policy Priorities, accessed May 10, 2022, <https://www.cbpp.org/snap-has-responded-to-the-economy-as-designed>.

²**Editor's note:** footnotes annotated with † are retained in Committee file.

³Tara Michel, "Closing the Meal Gap Act of 2020 Will Strengthen the SNAP Program," † *Amsterdam News*, last modified April 28, 2020, accessed May 10, 2022, <https://amsterdamnews.com/news/2020/04/28/closing-meal-gap-act-2020-will-strengthen-snap-pro/>.

⁴"Household Pulse Survey," United States Census Bureau, last modified February 7, 2022, accessed May 12, 2022, <https://www.census.gov/data-tools/demo/hhp/#/>.

⁵United States Department of Agriculture. "SNAP COVID-19 Emergency Allotments Guidance." Food and Nutrition Service. Accessed May 10, 2022. <https://www.fns.usda.gov/snap/covid-19-emergency-allotments-guidance>.

⁶Allison Lacko and Geraldine Henchy, "Hunger, Poverty, and Health Disparities During COVID-19 and the Federal Nutrition Programs' Role in an Equitable Recovery," † Food Research and Action Center, last modified September 2021, accessed May 12, 2022, <https://frac.org/up-content/uploads/COVIDResearchReport-2021.pdf>.

⁷"Adams, Gillibrand, Hayes, Lee, and Velázquez Announce Introduction of the Closing the Meal Gap Act of 2021," † Congresswoman Alma Adams, last modified June 24, 2021, accessed May 10, 2022, <https://adams.house.gov/media-center/press-releases/adams-gillibrand-hayes-lee-and-vel-zquez-announce-introduction-closing>.

⁸Congresswoman Alma S. Adams, Ph.D., and Senator Kirsten Gillibrand, "The Closing the Meal Gap Act of 2021," † Congresswoman Alma Adams, last modified June 17, 2021, accessed May 10, 2022, <https://adams.house.gov/sites/adams.house.gov/files/Closing%20the%20Meal%20Gap%20Act%20-%20One%20Pager%206.17.2021.pdf>.

ment of Agriculture. She is accompanied today by Ms. Cindy Long, the Administrator of USDA's Food and Nutrition Services.

Deputy Under Secretary Dean, please begin when you are ready.

STATEMENT OF STACY DEAN, DEPUTY UNDER SECRETARY FOR FOOD, NUTRITION, AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.; ACCOMPANIED BY CINDY LONG, ADMINISTRATOR, FOOD AND NUTRITION SERVICE, USDA

Ms. DEAN. Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee, for inviting me to talk about the Supplemental Nutrition Assistance Program, or SNAP. As you noted, I am Stacy Dean, Deputy Under Secretary for Food, Nutrition, and Consumer Services at USDA, and I am joined by Administrator Cindy Long.

Today, I will talk about the impact and importance of SNAP, its response to the pandemic, and the work underway to build back better to an even stronger program. SNAP is the most far-reaching powerful tool available to ensure that all Americans can afford healthy food. It is a lifeline for tens of millions of Americans. It reduces poverty and food hardship. And SNAP participation during early childhood is linked to better long-term health, education, and employment outcomes. About 70 percent of SNAP participants are children, older Americans, or adults with disabilities. The program supports households from major cities to rural America alike, helping low-income workers, seniors with fixed incomes, and parents struggling to make ends meet to put food on the table. Households use SNAP benefits to purchase food at local businesses, benefiting the store where they shop, the truck driver who delivered it, and the farmers who produced it.

As intended, SNAP expanded early in the pandemic in response to sudden increased need, but SNAP's powerful response to the pandemic has been a team effort. Congress took swift action to strengthen the program in recognition of unprecedented hardship, temporarily increasing SNAP benefit amounts, protecting eligibility for select groups, and providing USDA with special authority to allow states to adopt program operations to serve struggling households safely.

USDA worked with retailers and states to expand an online purchasing option to meet households' needs during the pandemic, and today, more than 97 percent of households can use their benefits to buy groceries online. And states did the extraordinary work to process a dramatic uptick in applications and deliver benefits to struggling households, all while radically shifting their operations to respond to public health considerations.

The bold action that we have taken together to help Americans during a time of crisis and get back on their feet has made a meaningful difference. Looking ahead, I want to touch on a few efforts we are undertaking to strengthen SNAP in the long-term, so let us start with the Thrifty Food Plan evaluation.

As directed by Congress, last year, USDA reevaluated the Thrifty Food Plan, the basis for calculating SNAP benefits, to reflect the cost of a cost-conscious, practical, nutritious diet. The reevaluation concluded that the cost is 21 percent higher than the previous plan,

which translates to about \$1.19 per person per day or 40¢ per person per meal. This resulted in the first increase in real purchasing power of SNAP benefits since the Thrifty Food Plan was introduced some 45 years ago.

We are also working to support opportunities through SNAP's employment and training program, or E&T. In 2018 Congress acted to improve the quality of E&T programs, emphasizing evidence-based practices, ensuring that we match participants with the right services and partner with state workforce systems. The farm bill signaled that E&T programs should not just be bigger, they should be better. We view strengthening E&T as an ongoing effort and welcome your continued partnership.

And finally, we are elevating FNS's long-standing work to improve nutrition security, which means having consistent and equitable access to healthy, safe, affordable food. USDA is prioritizing nutrition security for all Americans by ensuring our programs provide meaningful support, connecting all Americans with healthy, safe, affordable food sources; developing, translating, and enacting nutrition science through partnership; and prioritizing equity every step of the way.

Our goal is to come out of the pandemic in a better place than where we started. We are seeking to build on the effectiveness of SNAP and ensure it works for those it is intended to serve. And let me just tick off a few more areas that we are exploring: parity for the Territories that don't have access to SNAP, food sovereignty and self-governance for Tribal Nations, reducing barriers for vulnerable groups like veterans, bolstering program integrity by strengthening oversight and data collection, minimizing errors and enhancing fraud detection, and modernizing SNAP payment and shopping options, all while ensuring our programs are accessible to those who are eligible.

The farm bill represents an important opportunity to build on the remarkable success of SNAP, and we stand ready to partner with you. And before I finish, let me just thank the Ranking Member for acknowledging Associate Administrator Jessica Shahin and her decades of service to this incredible program. We are going to miss her after she retires, but she leaves an incredible legacy.

Thank you, and we look forward to answering your questions.

[The prepared statement of Ms. Dean follows:]

PREPARED STATEMENT OF STACY DEAN, DEPUTY UNDER SECRETARY FOR FOOD, NUTRITION, AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee for the invitation to join you today to talk about the Supplemental Nutrition Assistance Program (SNAP) and the farm bill. I am Stacy Dean, the Deputy Under Secretary for Food, Nutrition, and Consumer Services at USDA; and I am joined today by our Food and Nutrition Service Administrator Cindy Long.

As the nation's largest anti-hunger program, SNAP is critical in advancing USDA's goal of providing all Americans safe and nutritious food. It is also foundational in our efforts to tackle food and nutrition insecurity as well as advance equity.

My testimony will touch on where we have been and where we are heading—the impact and importance of SNAP, the pandemic response, the work we have done and have underway to build back better to an even stronger program, including the Thrifty Food Plan update, supporting opportunity through SNAP Employment and Training, and a focus on nutrition security, to name a few.

As you prepare for the next farm bill, it is worth stepping back to reflect on the impact and power of SNAP. SNAP is the most far-reaching, powerful tool available to ensure that all Americans can afford healthy food—it's a lifeline for tens of millions of Americans in every part of the country. It reduces poverty and food hardship, and participation by young children has been linked to better long-term health, education, and employment outcomes.

Unlike most other Federal nutrition and anti-poverty programs, which focus on specific groups like seniors or children, SNAP serves a very diverse range of people. About 70 percent of SNAP participants are children, elderly, or adults with disabilities. The program supports households in major cities and across rural America. While all households must demonstrate that their income is low enough to qualify for a benefit, their circumstances differ. And SNAP is responsive to their differing circumstances, for example by supplementing the wages of low-income workers, supporting seniors struggling to make ends meet on fixed income, and helping parents afford healthy food for their children.

One of SNAP's core strengths is its entitlement structure, which enables it to adapt as economic conditions change. By design, SNAP expands to meet increased need and contracts when the need abates, providing food to people and communities where and when it is needed most. SNAP cushions the blow for families when a parent loses a job, sees their hours cut, or is temporarily unable to work due to illness or natural disaster.

SNAP benefits are used at local grocers, injecting demand into the economy. When a household uses SNAP benefits to put food on the table, it also benefits the store and the employees where they bought the food, the truck driver who delivered the food, the plant that processed it, and the farmers who produced it. A 2019 USDA study found that in a slow economy, every dollar in additional SNAP benefits leads to an increase of \$1.54 in the overall economy.

Pandemic Response

As it's designed to do, SNAP responded to the sudden increased need caused by the economic fallout in the early days of the pandemic, including rising unemployment and increased need for food. SNAP participation increased from 37 million to 43 million people in just 3 months, underscoring the program's power in its ability to expand to meet families' needs during times of great hardship.

Congress recognized that the scope of the hardship caused by the pandemic was unprecedented and took steps to further strengthen SNAP by temporarily increasing SNAP benefits as well as ensure that eligible households could access the program while states were transforming service delivery to respond to public health concerns. In fact, Congress went to great lengths to ensure that SNAP could be as responsive as it has been by adapting and bolstering the program to respond to pandemic conditions at least four times. One of the most significant enhancements that Congress provided was the option for states to provide eligible households with temporary SNAP Emergency Allotments (EAs), which are additional benefits to help households weather the pandemic-related economic shocks. Congress also temporarily increased SNAP benefits by 15 percent for all households and expanded SNAP eligibility for low-income college students. Through your support, USDA has also had authority to adapt programs to serve struggling families safely and additional resources to address unmet needs. Congress also provided other significant aid during the pandemic, include expanded unemployment insurance and housing supports. The official measure of food security, collected through a partnership between the Census Bureau and USDA, showed that the food security rate held steady between 2019 and 2020. While we have not had the chance to study this, many are suggesting that a strong safety net was critical to protecting people from increased hunger and hardship during a time we would have otherwise expected to see a substantial increase.

USDA also worked to expand the SNAP Online Purchasing Pilot, which allows SNAP participants to shop and pay for their food online, expanding the same shopping options available to all consumers to those paying with EBT cards. This enhancement has opened up significant new food shopping opportunities for individuals living in food deserts and had a particularly positive impact on those living in rural areas. Now more than 97 percent of SNAP households have access to online purchasing across 49 states and Washington, D.C.

Together, we have taken bold action to help Americans get back on their feet—these efforts have made a huge difference and underscore how powerful the Federal nutrition programs can be in responding to hunger and hardship. A strong safety-net works and we have a lot to learn from the experience of the past few years.

In addition to ensuring that SNAP is adapting and responding as needed to the pandemic, USDA has been working on many fronts to strengthen SNAP for the fu-

ture. I want to share some of the major efforts we have undertaken to strengthen SNAP in the long-term.

Looking Beyond the Pandemic

Thrifty Food Plan

As directed by Congress in the 2018 Farm Bill, USDA conducted a data-driven re-evaluation of the Thrifty Food Plan which serves as the basis for calculating SNAP benefits. The resulting update is the first time the purchasing power of the plan has changed since it was introduced in 1975, reflecting notable shifts in the food marketplace and consumers' circumstances over the past 45 years. The reevaluation concluded that the cost of a nutritious, practical, cost effective diet is 21 percent higher than the previous Thrifty Food Plan. That translates to a modest increase of \$1.19 per person per day, or 40¢ per person per meal—helping to put healthy food within reach for millions of Americans.

When the Public Health Emergency (PHE) and pandemic-related benefit supplements end, most participants will see their benefits decrease. But the benefit levels participants will return to, will be at a level that affords them access to a healthy diet, thanks to the modernized TFP, which is an investment in our nation's health, economy, and security.

Supporting Opportunity through SNAP Employment & Training

SNAP is an important work support and is designed to provide an incentive for participants to seek employment and increase their earnings. The overwhelming majority of SNAP participants who can work do so, and those who need assistance in entering the workforce can receive training and support services through state SNAP Employment & Training—or E&T—programs.

In the 2018 Farm Bill, Congress took important steps to improve the quality of SNAP E&T programs, emphasizing the use of evidence-based practices, like case management and work-based learning. The farm bill also underscored the importance of matching participants with the right services and partnering with state workforce systems to align programs with the needs of participants and employers. Congress gave us clear direction that E&T programs should not just be bigger; they should be better.

The final rule implementing these bipartisan changes became effective in March 2021. The final rule strengthened E&T by ensuring that states use evidence-based strategies to help participants get the skills employers need, increased the use of case management services for E&T participants, and allowed E&T funds to be used for subsidized employment and apprenticeships. The rule also encourages states to build high quality programs and holds states accountable for participant success in E&T programs.

We are working with states to strengthen E&T through the lens of continuous improvement. By learning what works, we are integrating promising and evidence-based practices that will better the program for all participants. We still have a lot of work to do, and we welcome your continued partnership along the way as we seek to strengthen and improve these opportunities.

Transitioning Out of Pandemic Operations

As I've noted, Congress acted quickly to provide USDA with important temporary authority during the pandemic. This allowed SNAP to adapt to help states respond to the sudden increased need while minimizing public health risks. Those operational flexibilities, along with extra benefits through Emergency Allotments, will end when the Federal Public Health Emergency (PHE) ends. We are working with states now to assess and build their readiness and capacity to return to traditional program rules and we continue to review the full array of existing flexibilities that states may utilize in order to streamline program operations.

We will also work with states to ensure that all households that count on both the core program and temporary benefits understand how their benefits will change as authorities expire, so that they can manage the transitions with knowledge and confidence.

Nutrition Security—Supporting Nutrition for the Nation

At USDA, we are committed to tackling both food and nutrition insecurity. Nutrition security means having consistent and equitable access to healthy, safe, and affordable food. It builds on and complements USDA's long-standing efforts to address food security. However, it is different in two distinct ways. It recognizes that we are not all maintaining an active, healthy life, and it emphasizes taking an equity lens to our efforts. USDA is prioritizing nutrition security in four ways by:

- Providing meaningful nutrition support from pregnancy to birth and beyond;

- Connecting all Americans with healthy, safe, affordable food sources;
- Developing, translating, and enacting nutrition science through partnership; and
- Prioritizing equity every step of the way.

I have already talked about USDA's reevaluation of the Thrifty Food Plan to ensure that it reflects the realistic cost of a basic, healthy diet, which is fundamental to ensuring that SNAP provides meaningful support. This has strengthened SNAP and its role as one of our most powerful tools to promote nutrition security, since families simply cannot achieve a nutritious diet, even a cost-conscious diet, without sufficient resources. In fact, previous research found that nearly nine out of ten SNAP participants struggled to achieve a healthy diet, with the cost of healthy food cited as the most common roadblock.

SNAP Nutrition Education—or SNAP-Ed—also plays a key role in helping people lead healthier lives on a limited budget. SNAP-Ed teaches people how to make their SNAP dollars stretch, shop for, and cook healthy meals, and stay physically active. Evidence shows positive impact of SNAP-Ed nutrition education. For example, according to a 2019 study among 56 land-grant universities implementing SNAP-Ed, results showed that 40 percent of participants ate more fruits and vegetables and drank fewer sugar-sweetened beverages, and 35 percent of participants moved more and sat less.

Building Back Better

The public health crisis has placed unprecedented stress on American households, leaving in its wake millions of families struggling to make ends meet. This has been, and continues to be, an uncertain time, with impacts that will last for years to come.

Still, our goal couldn't be clearer: to come out of the other end of this pandemic in a better place than where we began. SNAP is a powerful and effective tool to address hunger and hardship. Yet, we must continue to look for ways to strengthen the program and ensure it is working for those it is intended to serve. I have already touched on a number of priority areas and want to share a few more that we are already exploring at FNS:

- Working towards parity for the people of the Commonwealth of the Northern Mariana Islands, Puerto Rico, and American Samoa;
- Working to reduce barriers for vulnerable groups including seniors, individuals with disabilities and low-income college students;
- Bolstering program integrity by strengthening USDA oversight and data collection, minimizing improper payments and administrative errors, and enhancing fraud detection;
- Supporting food sovereignty and self-governance for Tribal Nations;
- Modernizing SNAP payment and shopping options, building on the successful expansion of SNAP online purchasing with a focus on smaller, independent grocery stores;
- Exploring avenues to reduce burdens on families, streamline enrollment, and improve the participant experience to ensure our programs are open and accessible to all who are eligible; and
- Assessing how well SNAP addresses equity and disparities in who experience food insecurity and addressing any shortcomings.

The upcoming farm bill will be an important opportunity for Congress to build on the remarkable success of SNAP to date. I know that Members of the Committee are already considering areas for improvement and we look forward to working together with you on this effort.

While nutrition assistance is critical, it is simply not enough to address the needs of struggling individuals, families, and communities. The pandemic has laid bare critical gaps in our safety net, highlighting the opportunity and urgency to lay the foundation for a recovery that is more equitable and just for all Americans. That is why the Biden Administration is calling for a comprehensive approach for investing in the American family to ensure that our recovery is inclusive and expansive by proposing, for example, expanding the Earned Income Tax Credit (EITC) and Child Tax Credit, and expanding access to affordable, high-quality childcare. These investments will strengthen the economy and our society from the bottom up and the middle out by building systems that lift up working families.

Thank you, Chairman Scott, Ranking Member Thompson, and every Member of the Committee for your leadership and commitment to helping Americans put food on the table for their families and for your partnership as we continue this critical

work. This Committee has a long history of bipartisan support for USDA's Federal nutrition programs and I look forward to working with you to advance our shared goals. Thank you again for the opportunity to join you today.

The CHAIRMAN. Deputy Secretary Dean, thank you so much for your very important testimony.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. And you will be recognized for 5 minutes each in order to allow us to get as many questions in as we can. And again, as I always tell you, please keep your microphones muted until you are recognized so that we can minimize background noise.

And I will start the questions. I recognize myself for 5 minutes.

And, Ms. Dean, I have an important question I want to ask you. Several of my labor union friends in Georgia have brought up the issue of SNAP privatization to me. And, as you know, SNAP law requires that states use merit system personnel to conduct SNAP certification, interviews, and eligibility determinations. However, I understand that states do have the flexibility to use non-merit staff, or contractors, for work that does not involve SNAP participant contact. And states are also permitted to use contractors for specific purposes that include SNAP participation contact with FNS approval.

However, there has been talk about expanding the use of non-merit staff during the pandemic to address increased caseload and staffing shortages. However, I am very concerned that expanding the use of contractors could reduce the quality of service that SNAP recipients receive.

So, my question to you is: do you believe that additional non-merit employee flexibilities are needed for states to manage their current SNAP caseloads? And if non-merit staffing flexibility were expanded, what impacts would you anticipate it having, if any, on our beneficiaries?

Ms. DEAN. Thank you, Mr. Chairman, for the question. Let me just start with FNS is absolutely committed to working with states to, basically, continuously improve program operations. We and they are constantly assessing new technology, new ways of organizing the business, new platforms to deliver services, and that can re-frame the question around, "What is the role of state *versus* contract staff." We are constantly answering new questions about that.

I think our general guiding principle through all of this is where the statute lies, which is that the merit system's personnel role—meaning state or local government workers really need to hold the most critical functions, which is that eligibility determination—and for us that includes the interview with clients, and of course access to highly private personal information. So, I don't believe that we would be looking for an expansion in that.

But let me just say that the guidance that the previous Administration put out in 2020 that outlined areas where states could use contract staff I very much support, and we are in constant dialogue with states about where their options are. I think many of them don't appreciate how much flexibility they have in the current system. It may mean that they have to reorganize their business model a little bit, but there are lots of places for them to bring in non-merit staff.

And you asked me what would happen if it were expanded. Look, we had some experience with privatization experiments in the past for those core eligibility functions, and it didn't go well. Now, granted, it was quite a while ago, but it was somewhat disastrous and ended up making service worse and states had to pull back from it. So experience would suggest it is a pretty risky endeavor to shift the roles as we have experienced them for the past 4 decades.

The CHAIRMAN. Ms. Dean, now, I am informed that the latest data available shows that in 2018, my district, Georgia's 13th, had more than 35,000 households participating in SNAP, 60 percent, or nearly $\frac{2}{3}$ of which, had children in their homes. Now, research shows that children receiving SNAP have better health outcomes than their counterparts who are not receiving the benefits, including reduced likelihood of obesity, high blood pressure, heart disease, and diabetes in adulthood—it grows to that extent—and improved economic outcomes. So, tell us, how does the 2021 Thrifty Food Plan reevaluation make it possible for families with children to provide their young ones with adequately nutritious meals that would make it easier for them to succeed in both the long- and the short-term?

Ms. DEAN. Well, thank you, Mr. Chairman, for acknowledging SNAP's strength both in terms of its ability to make sure households can purchase food today but also children who are well-nourished particularly early in life do far better later in life. And we have fairly conclusive evidence on SNAP's role there. I think what we found when we did the reevaluation was that—we have to always separate the Thrifty Food Plan from SNAP—but, we found that the basis for the benefit was not sufficient to purchase an adequate diet, low-cost, practical diet, so basically healthy food wasn't within reach. And with this adjustment, we certainly hope that with healthy food in reach, we will only strengthen SNAP's impressive impacts on families and children.

The CHAIRMAN. Well, thank you very much for your answers. They were thorough, very informative. This issue is important to all of us in this country and certainly important to me and my district, so I look forward to working with you as we make forward progress on this issue.

And now I recognize the gentleman from Pennsylvania, our Ranking Member, Mr. Thompson. You are now recognized for your questions.

Mr. THOMPSON. Well, I thank the gentleman from Georgia for the recognition.

Deputy Under Secretary Dean, once again, welcome. There are coalitions who vehemently support restrictions, particularly of sugar-sweetened beverages because they have been found to lead to an array of diet-related diseases. While I don't want to visit the merits of these proposals, I do want to better understand what the agency and the Department are doing to focus on nutrition. What is over the horizon to ensure better use of nutrition education dollars to support healthy eating initiatives?

Ms. DEAN. Well, thank you, Ranking Member. I think this issue couldn't be of more paramount importance to the Secretary and to myself as well. Americans' overall eating habits and its impact on their diet health is alarming, and we really need a whole-of-govern-

ment response to make sure that all Americans are aware of the need to eat better in order to support better diet health.

With respect to SNAP, and all of our programs honestly, we have a four-pillared approach. First is to ensure that our programs are providing meaningful support so that the benefits are adequate and are informed by nutrition science. You have heard about the Thrifty Food Plan adjustment. We are going to be proposing changes to WIC and the school food program to reflect the *2020 Dietary Guidelines*. We are required to do that by law. Those are forthcoming changes.

We also believe promoting healthy foods is important, so programs like GusNIP (Gus Schumacher Nutrition Incentive Program) or incentives programs that you all included in the 2018 Farm Bill offer a terrific opportunity. And, honestly, the Retail Incentives Program is just underutilized, and I hope that we can work with our grocers to take advantage of that and offer incentives for healthy food for our SNAP participants.

And I would say, speaking to the notion of public-private partnerships and agreeing with Ranking Member Bacon, there is so much more we can do to leverage our tools to promote healthy eating. We have MyPlate at USDA. We need to crank it up on that and just make that a tool that tens of millions of Americans are using and are aware of.

And we work with tens of thousands of nutritionists, healthcare providers, educators across the country. It is important, I think—USDA feels it is very important—that we start singing all from the same song sheet and really leveraging up the importance of diet, healthy food, and its profound consequences on long-term health.

Mr. THOMPSON. Well, I wouldn't be true to form if I didn't say as you are looking at beverages—and you kind of opened it up across outside even the jurisdiction of this Committee with child nutrition stuff, I have always appreciated Secretary Vilsack's support for milk-fat and anything that we can do to move from 1 percent to 3½ percent milk-fat, which would be whole milk, would be best for our kids. Nobody is force-feeding anybody to drink or consume anything, but they should have the healthiest options out there, so I am really looking forward to seeing what you put forward because that fits with trying to maximize nutrition, as you talked about.

A follow-up, or another question, not a follow-up—but what role does the Department's Office of Chief Economist play in helping FNS make decisions related to policy and spending? I was made privy to a USDA Office of Information Affairs response to a FOIA request that states, quote, "The OCE relayed they were not asked to review any information related to the 2021 Thrifty Food Plan," end quote. And I think we can all agree that this update has a major economic impact obviously, and if this response is indeed true, can you tell me why the Office of Chief Economist would not be consulted? I can only wonder if there was concern OCE would disagree with your approach from an unbiased economic standpoint, especially when I perceive OCE as falling victim to calculated attempts at blocking economic analysis across a variety of policy issues. And if this response is not true, can you walk me through those consultations with the Office of Chief Economist?

Ms. DEAN. Sure. Thank you, Ranking Member, for the question. Let me just reassure you there were no shortage of economists involved with the Thrifty Food Plan reevaluation, but let me refer that to Administrator Long in terms of the process.

Ms. LONG. Sure, I would be happy to share a little bit more about the process. So, we essentially—in the reevaluation of the Thrifty Food Plan—we essentially used the same technical approach that has been used in prior years. It is a mathematical optimization model with a number of data inputs and constraints, and I will be happy to speak more about that. But in terms of the other entities that were consulted, as the Deputy Under Secretary mentioned, internal to FNS, we certainly had a team that included economists, data scientists, and nutritionists. We had formal input and review from experts at the Economic Research Service and the Agricultural Research Service throughout the process, both as the work was being done and they also conducted a review of the report itself. So, again, we certainly had an extensive opportunity to bring the expertise of not only the Food and Nutrition Service but USDA-wide to bear on this process.

Mr. THOMPSON. And that is fine, but, I mean, this decision tipped the Nutrition Title over \$1 trillion over 10 years. I would think that would warrant being elevated to consulting with the Office of Chief Economist for USDA. And if so, I mean, why within these internal communications that were discovered under FOIA, I mean, I just question why they were excluded. It seemed that something was missed in the process. I appreciate all the things that were done, but my question is what was not done given the significant impact of the changes to the Thrifty Food Plan.

Ms. LONG. Certainly. And, Congressman, we would be happy to get back to you on a more detailed description of the clearance process, because at this point we would need to double-check to see whether OCE did have the opportunity—

[The information referred to is located on p. 820.]

Mr. THOMPSON. Understood, and I appreciate that. Thank you, Mr. Chairman.

The CHAIRMAN. Sure. And now the gentleman from California, Mr. Costa, who is also the Chairman of the Subcommittee on Livestock and Foreign Agriculture, you are now recognized for 5 minutes.

Mr. COSTA. Thank you very much, Mr. Chairman, for your leadership and the timeliness of the oversight necessary to set the table for literally and figuratively the reauthorization of the farm bill next year.

I want to thank the Department for following through with the bipartisan directive in the 2018 Farm Bill to review and update the Thrifty Food Plan. My gosh, it has been 45 years since it has been updated, long overdue, and I suspect that will be the subject of our Subcommittee chair of jurisdiction on how we update it and review it.

I have always said food is a national security issue, and from the onset of the COVID-19, we certainly learned when we turned our food supply chain upside down how dramatic it was in terms of impacting people's availability for food. It is, after all, America's safety net, right? I mean, you really think about it, it is so critical. And

so SNAP and the access to food is critical for lives in America but also to change lives.

And, we all look at it locally. The Chairman noted in Georgia. Let me tell you from the California 16th Congressional District, we have the irony of having one of the richest, largest agricultural areas in the entire country, but, yet significant hunger from young and old alike to working poor. SNAP in my district contributed to the local economy last year, benefitting 174,000 participants. Twenty-three percent of my Congressional district received SNAP, second highest in California. And its impact for food benefits are significant, \$446 million in food benefits, \$804 million in economic activity, and over 10,000 jobs.

I want to put a question to you, Ms. Long, and again, thank you for your service. You are familiar with the pilot project that I worked on back in the 2014 reauthorization that I think was successful. And Fresno County's Bridge Academy was chosen as one of the SNAP employment and training for a pilot program. By the end of 2017, the program had expanded to 14 academies and counties affecting 3,000 families to get people back on their feet. I want to continue to make this push. When we look at the reauthorization of the farm bill—and the Chairman and I have had three authorizations, this will be our fourth. But, as the Ranking Member noted, the title IV is usually the most contentious issue among the Agriculture Committee. I think there are ways that we can work together on this and should. I think this pilot project is an example, but I think more funding is needed.

Ms. Long, would you agree that such an example of this effort can be accomplished and can be expanded to provide reform and opportunities for public-private partnerships?

Ms. DEAN. Congressman, if I may, I will take that question. I was very fortunate some years ago to be invited by the incomparable Pete Weber to come out and visit the Bridge Academies in Fresno, and it was incredibly impressive.

Mr. COSTA. He is a good man.

Ms. DEAN. And many of its elements I think helped inform the pilots and even some of the directives from the 2018 Farm Bill to us on how to shift and change employment and training, huge emphasis on case management, making sure that families have some of the wraparound supports that they need for training and employment to be successful.

Mr. COSTA. Those are critical.

Ms. DEAN. Yes, and also really making sure that participants are matched to the right program or training program for them, as well as the right employer and high-quality jobs, with a big focus on ensuring that we place participants in high-quality jobs.

Mr. COSTA. Provide a living wage.

Ms. DEAN. Yes, and that lead to opportunity.

Mr. COSTA. Well, and because SNAP is such a significant part of the farm bill in terms of the baseline, 80 percent annually, I think it is critical that we focus.

With my remaining time allowed, and I don't know if you, Madam Secretary, would want to continue, I think the importance of reforming and focusing on nutrition, on WIC and the school lunch and breakfast program is critical. And during the pandemic,

obviously the food box program was critical, but we have with the supply chain also a perverse situation in which we have excess commodities that are depressing prices. I am wondering if you are looking at how we can use those excess commodities either through the Commodity Credit Corporation or others to help deal with the impacts of that production oversupply.

Ms. DEAN. Well, quickly, that is an entire initiative of the Secretary and our friends at the Marketing and Regulatory Programs mission area. One example would be the Local Food Procurement Grant Program that the Secretary has just launched where we are going to be supporting state secretaries of agriculture to build their capacity to procure food locally in order to distribute their emergency food or school food. We think that will help support more resilient local food systems.

Mr. COSTA. Well, thank you. My time has expired, but, Mr. Chairman, we are going to have hunger issues not only in this country but around the world, and there is an opportunity here for us to take good action. Thank you.

The CHAIRMAN. Yes, you are right. The gentleman from Arkansas, Mr. Crawford, is now recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman. I appreciate that.

Since March 2020, consumers have rapidly shifted to online grocery shopping. As you know, FNS was tasked with implementing the SNAP Online Purchasing Pilot at a difficult time during this consumer shift and retailers lined up to accept SNAP benefits online. However, I am hearing from my independent grocers who still want to participate 2 years later that there continue to be significant challenges in getting approved, while the largest national chains have accepted SNAP online from the beginning.

Congress attempted to address the bottlenecks and slow onboarding processes by allocating \$25 million in the American Rescue Plan (Pub. L. 117-2) in part for retail technical assistance. My understanding is that none of this money has been distributed yet. What steps are being taken by FNS to help ensure that all retailers and consumers have access to this program?

Ms. LONG. Well, thank you for that question, Congressman, and we really appreciate the support for online purchasing. We are at a place where over 97 percent of SNAP households currently do have access to online purchasing options. But, as you know, there is certainly more to do, particularly with respect to smaller and specialty retailers, and we are very grateful for the support that came through the American Rescue Plan Act. And I am happy to report that next month, in May, we are going to be putting out our request for a contract to develop a technical assistance center which will be specifically designed to assist particularly, again, those smaller retailers and coming on board to the online platforms. And their goal will be really to provide the support that those retailers need to assess their technology needs and the business case to be able to successfully integrate into online purchasing in SNAP.

Mr. CRAWFORD. And so that money, you are saying, will start to flow next month?

Ms. LONG. We will be soliciting for the support for that technical assistance center, and we would be happy to get you more informa-

tion on the anticipated schedule for the actual award and flowing of support.

[The information referred to is located on p. 821.]

Mr. CRAWFORD. Okay, thank you. And just one other thing that I need to note, and I was actually talking to the Ranking Member and this is an issue we have had conversations about in the past. And I got on your website and I noticed that this is the case, that whole milk is not acceptable for school lunches, school breakfasts, and so, we are concerned about the nutritional choices that our children are making, and yet we don't have that same concern as it applies to, say, for example, candy and energy drinks and things like that. Do you see the disconnect there? Do you see the irony of that is that we are making judgments on nutrition value to our young people as it applies to whole milk but we are saying it is okay to go and buy a candy bar. Can you explain the disconnect there?

Ms. LONG. Well, I would be happy to comment on the importance of milk. As you know, it serves a fundamental role not only in the schools but in all of the child nutrition programs. We certainly support the service of milk through the WIC program. Those programs are fundamentally different than SNAP in that they are designed to put a meal or a package of targeted foods on the table, and so we do believe that a differential approach is warranted.

Mr. CRAWFORD. Okay, but you as FNS are making the decision that in one nutrition program we can make those judgment calls but in another nutrition program we can't make those judgment calls. And also, are energy drinks included in SNAP? Are they acceptable for SNAP expenditures?

Ms. DEAN. They are, Congressman. Let me just jump in and this. I think the statute actually differentiates between the programs in terms of the science-based standards and the provision of food *versus* empowering—

Mr. CRAWFORD. Would you support changing that statute so that you could make a more consistent application across the agency?

Ms. DEAN. Well, I think we are making a consistent application in that we are promoting for SNAP participants to purchase food aligned with the *Dietary Guidelines* and as in WIC and school—

Mr. CRAWFORD. You are promoting it and I get that and I appreciate that, but you are not mandating it because the statute doesn't allow for you to mandate that? Is that correct?

Ms. DEAN. That is correct.

Mr. CRAWFORD. But the statute does allow for you to mandate not allowing whole milk in schools for breakfast or lunch. Is that correct?

Ms. DEAN. That is correct.

Mr. CRAWFORD. Okay. So that is my point, is there is an inconsistency there, statutory, that probably this Committee needs to address so that you are not in this position of saying one thing, doing another. I am not laying this in your lap and saying this is your fault. You already pointed to the fact that this is a statutory issue. But it seems to me, based on the exchange we are having today, that the inconsistency can be addressed here in this Committee, and that is something that you would be okay with?

Ms. DEAN. Sir, we bring the *Dietary Guidelines* to life in different ways for each program. It is certainly an important issue for the Committee to look at, but we believe that SNAP participants ought to have the flexibility to purchase like any other consumer in the store.

Mr. CRAWFORD. So basically then, I am running out of time, but then it is really not a statutory issue. It is more of a judgment call then?

Ms. DEAN. I think it is both. It is both, we follow the statute, and what we do in SNAP is the way we bring the *Dietary Guidelines* to life is different than it flows through the other programs. But, I am sorry, judgment informs statute, so maybe we can follow up on this conversation.

Mr. CRAWFORD. Thank you.

Ms. DEAN. I think we want to promote better health.

Mr. CRAWFORD. Yes, thank you. I yield back.

The CHAIRMAN. Thank you. Just as a reminder, Members should direct questions to our witness, Deputy Under Secretary Dean. Thank you.

Mr. CRAWFORD. Sorry, Mr. Chairman, I thought that is what I was doing.

The CHAIRMAN. No problem. And now I recognize the gentleman from Massachusetts, Mr. McGovern, who is also the Chairman of the House Committee on Rules and is a national leader in our fight against hunger. He is now recognized for 5 minutes.

Mr. MCGOVERN. Well, thank you, Mr. Chairman, and thank you for this hearing.

And, Deputy Under Secretary Dean, thank you for being here today. I want to begin first by saying thank you. Thank you to you, thank you to Secretary Vilsack, thank you to President Biden for stepping up during this pandemic and providing additional assistance so that hunger didn't spike even more than it did during this unprecedented time. I am grateful that you were in the positions that you are in, because I quite frankly can only imagine what might have happened if it was the previous Administration that was in charge, number one.

Number two, I got to be honest with you. I get a little frustrated when I hear things like, "Thrifty Food Plan scheme" or talk about how SNAP encourages idleness and disengagement. I find that, to be honest with you, offensive. In terms of the Thrifty Food Plan, you were asked in the last farm bill, when the Republicans controlled the House, to actually reevaluate the program to see what in fact was necessary to be able to afford a nutritious meal. You did that. And by the way, just to put everything in perspective, the average SNAP benefit before all of these adjustments was about \$1.40 per person per meal. To my colleagues who think that is too much, you try living on that. And yet that is what the benefit was.

And in terms of being idle and disengaged as a result of being on SNAP, the majority of people who are eligible to work who are on SNAP actually do work. They are doing everything we expect them to do, but they still earn so little that they are eligible for the benefit.

I also just want to say when people say, "Oh, that some of us are drawing a line in the sand, do not touch SNAP," look, everybody

is open to constructive ideas on how to make any program better and more responsive. But, the thing that gives people like me pause is, to my friends who are calling for “touching SNAP” or “reforming SNAP,” when you guys were calling the shots, that meant cutting the program by over \$20 billion and actually throwing people off the benefit. Yes, no, I mean, I would fight that tooth and nail. I mean, that is just inappropriate.

And, here we are coming out of this pandemic, there is worldwide inflation, food costs are going up, gas prices are going up, and again, I find it somewhat ironic that my colleagues who were calling for, quote, “touching SNAP” have no problem with oil and gas companies gouging consumers or with the continued subsidization of that industry at a great benefit to oil executives. But anyway, that is another story. We will talk about that at another hearing.

But the bottom line is food prices are going up, and that directly relates to people’s ability to be able to afford nutritious food. And, we are all for encouraging people to make better choices. I don’t think we have to micromanage their shopping. There are programs in SNAP, like the Double Bucks Program, which actually incentivizes people to go to farmers’ markets and buy fresh produce and they get more of a bang for their buck with their SNAP dollars if they do that. I think those are good programs. But, basically saying to somebody that because you are struggling, because you are poor we are going to tell you what you can buy and what you can’t buy. I mean, talk about Washington kind of overstepping its bounds and micromanaging people’s lives. I mean, there are better ways to do this.

And Deputy Secretary, I appreciate the fact that you talked about an all-of-government approach to dealing with some of the challenges in nutrition because, quite frankly, this is not just a USDA issue. It is a Department of Education issue. It is a Health and Human Services issue. It is a Department of the Interior issue. I go right down the list. We need a whole-of-government approach to hunger. We need a whole-of-government approach to nutrition. And I hope the Administration will move in that direction.

But let me just ask you, the USDA’s Economic Research Service put out a report in March predicting an up to five percent increase in food prices this year. And that is astounding. It is simply not affordable for many American families. And while I was pleased to see that SNAP spending rose in 2020 in response to the sharp economic downturn, it has been relatively flat since the summer of 2021 and has started falling as temporary benefit increases that took place during the pandemic are phasing out. So, can you help us understand the important role that SNAP played during the pandemic, and, more importantly, can you give us a reality check about what it will mean for families’ food costs if the benefit decreases again at the end of the public health emergency?

The CHAIRMAN. Would you answer that very quickly?

Ms. DEAN. I will do my best. Thank you, Mr. Chairman. Okay. So, SNAP—during the pandemic—did, first of all, increase when we saw a significant increase in need and newly unemployed folks qualifying for the program, so it was able to flex. Congress increased benefits by providing emergency allotments, which actually allowed benefits to go up by about, monthly, aggregate across the

country about 40 percent, so it really helped to cushion folks through the dramatic difficulty in securing food during a difficult time. And that increase has also helped to cushion relative to the rising food inflation. And I think the President's request of USDA to ensure that we had a minimum emergency allotment, a \$95 per month per household amount helps to deflect the impact of rising food costs on SNAP participants. And of course, food hardship would be much, much higher had the program not been able to grow and expand with Congress' support. And I will stop there, sir.

The CHAIRMAN. Very fine. And you can also provide additional information to Jim in writing. Thank you.*

And now the gentleman from Tennessee, Mr. DesJarlais, is recognized for 5 minutes.

Mr. DESJARLAIS. Thank you, Chairman Scott, and thanks to our witness today. I do have some questions I want to ask before my time expires.

Under Secretary Dean, just for some background, can you tell us currently how many citizens are participating in the SNAP program?

Ms. DEAN. Sir, I think it is approximately 43 million individuals, but I can get you the precise number.

Mr. DESJARLAIS. Okay. And what is our annual cost currently?

Ms. DEAN. I believe we estimate it to be—just give me 1 second. This year, we estimate it to be \$127 billion in benefits.

Mr. DESJARLAIS. Okay.

Ms. DEAN. Including emergency allotments.

Mr. DESJARLAIS. Is that including—I think you indicated—about a 21 percent food inflation in your opening statement?

Ms. DEAN. That includes the increased cost associated with the Thrifty Food Plan reevaluation and emergency allotments.

Mr. DESJARLAIS. Okay, thank you. I guess I want to shift a little bit with concerns of what is happening at the southern border. And do you know offhand what number of non-citizens, asylum-seekers, immigrant non-citizen children are receiving SNAP benefits now?

Ms. DEAN. I do not, although non-citizens face much more restrictive eligibility rules than citizens, sir.

Mr. DESJARLAIS. Well, they do, correct, but if you are a non-citizen child under 18, you receive benefits?

Ms. DEAN. Yes.

Mr. DESJARLAIS. If you are an asylum-seeker under Section 208, you receive benefits?

Ms. DEAN. That sounds correct.

Mr. DESJARLAIS. And, I mean, there is a list. There are about 15 different categories. So, there are quite a fair number of non-citizens, especially asylum-seekers. I think right now we have a 1.1 million backlog of asylum-seekers awaiting adjudication inside the U.S. We are getting 300,000, I think just this last year. With title 42 being lifted by the Administration, which temporarily had been blocked, if this abandonment does come to fruition, I was wondering what your concerns would be to the strain on the program moving forward. And have you discussed lifting title 42 with the White House? If so, what is the plan to ensure that SNAP benefits

* **Editor's note:** The information referred to is located on p. 819.

will be preserved for the Americans that truly need it? And if not, why?

Ms. DEAN. Sir, just to—I guess one thing I want to make sure you are aware of is that the program, as an entitlement program, can flex to need, so we would not displace one eligible individual for another.

But in terms of your specific question, no, I haven't been involved with conversations with the White House on that issue.

Mr. DESJARLAIS. Okay. Well, we talked about veteran hunger and hunger in the United States, and it seems that American citizens should be a priority, not that we want anyone to go hungry, but there are other costs associated beside SNAP with asylum-seekers and people who come in, in the form of TANF, heating, education, and whatnot. And according to the Center for Immigration Studies, 45 percent of non-citizen households rely on SNAP as opposed to 21 percent of citizens' households. Can you walk me through this and why this is and what the Department and FNS is specifically doing to help lift these families from poverty and independence? And first of all comment on those numbers and percentages.

Ms. DEAN. Sure. First of all, I am not familiar with that study so I can't speak to its particulars, but we are happy to follow up. I want to just restate again that non-citizens face much more restrictive eligibility rules than citizens. There is, for most adults, a 5 year waiting bar and then other restrictions. And you are right that refugees and other immigrants admitted on a humanitarian basis do have more immediate access to help—

Mr. DESJARLAIS. Right. And I would argue right now that most people crossing the southern border have learned that. They don't come here and say—they don't cross into the United States and say, "We are just coming here because we felt like it." They are saying we are seeking asylum. They are taught what to say. They are charged up to \$4,000 per person to be brought by drug smugglers and cartels and people to get into the United States, and so they know what to say.

So, I guess what I would like to get from you is an actual number. We know what it costs for SNAP per year. We know how many Americans—well, I think we know how many Americans—you said 41 million, but we don't know how many of those are actual Americans. Does that number include the asylum-seekers and children of non-citizens?

Ms. DEAN. It would include eligible non-citizens, yes.

Mr. DESJARLAIS. Okay. So, I guess what we need to know is that, first of all, we are taking care of Americans first. We have programs to assist people whether they are in other countries in terms of hunger, and I think that is important. The U.S. should lead on that, and I am really proud of the SNAP program that we have in order to take care of the people who are hungry in the U.S. I just want to prepare—this line of questioning is to prepare the farm bill so we know what to expect and how to best take care of those in need. So, I thank you for your testimony, and any information you can get to me in writing on those numbers would be greatly appreciated, and I yield back.

Ms. DEAN. Happy to do that, sir.

[The information referred to is located on p. 821.]

The CHAIRMAN. Thank you. And now the gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations, is recognized for 5 minutes.

Mrs. HAYES. Thank you, Mr. Chairman. I am really excited that we are having this hearing because, again, this program is incredibly important. I also hope, Deputy Under Secretary and Administrator Long, that you appreciate the fullness of the immigrant experience, and it is not a single issue. It is much more complex, and it is something that we have a responsibility to look at completely and thoroughly.

SNAP is one of the most effective Federal programs also for bolstering local economies. Every \$1 in SNAP generates \$1.50 to economic activity, and studies have shown that SNAP was responsible for nearly 200,000 U.S. industry jobs and 45,000 jobs in supporting industries like agriculture, manufacturing, and transportation. In my State of Connecticut 77,000 people are lifted out of poverty every year by SNAP. That number includes 31,000 people. It is not a “poverty-inducing endemic program.” It is something that I have seen families use to stabilize themselves until they can enter the fullness of society. And I have a lot to say on that.

However, the program is still not as accessible as it should be, especially for veterans, as I mentioned before. I appreciate the gentleman from Nebraska’s comments about raising the pay of our servicemembers, but we have not done that yet. And in my area of jurisdiction, which is the programs like this, there is more that we can do. And I am hearing from veterans just about the impact when they return, when their disability rating is not enough to qualify for benefits, and we are falling well short of what we can do.

My question is would you have any recommendations as we go into the next farm bill on how we can make sure, especially for this targeted group, that we are doing a better job?

Ms. DEAN. Well, thank you for the question. And I agree. The rates of food insecurity amongst our veterans is incredibly troubling and merits bold action. And just to speak to that, the way we have approached it is first trying to get information to veterans themselves through the Department of Veterans Affairs welcome-home kits. We also work with those who work with veterans, so training nurses and other professionals at the VA to make them aware of our programs and how to screen for whether someone is eligible, and then of course we have been encouraging our states to do direct outreach to veterans. So those are things within our toolkit today.

I am always a little—I do want to be mindful of making policy at the table in a markup, but I think the kinds of things that you have in your bill are certainly worthy of exploration. Is the disability rating in the statute too high and does it close out those who are disabled, severely disabled but not yet at that 100 percent rating?

I think we also have a relationship with Social Security Administration that might be one we could explore with VA where Social Security makes SNAP—actually takes the responsibility of taking

SNAP applications for low-income seniors and individuals with disabilities, and we reimburse them for that activity. That might be something we could look at. And, of course, we would certainly love to explore the idea of targeted outreach programs to veterans, which would require funding, but we would love to talk to you about that.

Mrs. HAYES. Well, thank you. I just appreciate your understanding of the magnitude of this problem and that we really have to make some intentional changes. And I don't want you to make policy at the table because your work is way too important and requires a lot more thought.

I am going to ask a question and then just make an observation and then let you run out the time because 5 minutes is not enough time to have this kind of a conversation. I know that in 2004 we switched from food coupons to the Electronic Benefits Transfer program. I know that—can you just please provide us with any updates on the status of implementation of the mobile technology demonstration projects?

And just one thing—you probably won't even have time to answer this, but I also wanted to share something that I am hearing from grocers in my district that I just think that we should take a better look at is rolling benefits. I have heard from many grocers that at the beginning of the month there is this surge of people who all get their benefits at the same time, and I just think that to preserve the dignity of people, the first 5 days of the month, everybody is shopping, they are running out of the—the stores can't keep the shelves stocked enough because of the surge, and then the rest of the month as benefits begin to dwindle, I just feel like there shouldn't be this idea that on the first of the month everyone who is receiving benefits is shopping because many of these people are also working or are a very different narrative than people associate with benefit participants.

My time has expired, but if you could just share with me just the updates on the mobile demonstration programs and just think of that for your consideration as we move forward because it is something that I am hearing over and over about the way benefits are distributed.

Mr. Chairman, I apologize for going over. I yield back.

The CHAIRMAN. Thank you. And please follow up with the Chairwoman in writing so she can get some specific responses from you, Under Secretary. Thank you.

And now the gentleman from Illinois, Mr. Davis, is recognized for 5 minutes.

Mr. DAVIS. Well, thank you, Mr. Chairman and Ranking Member Thompson. We have had a busy week in this Committee, and I appreciate that. I am looking forward to discussing the SNAP issues today.

Deputy Under Secretary Dean, in your testimony you talk about how SNAP is a powerful tool to address hunger and hardship, and yet the Biden Administration is pushing an agenda of poverty by continuing to incentivize people to stay home, not seek employment, not utilize the employment and training programs that exist through the USDA at a time when there is a business on every corner that really needs employees.

I mentioned this in the Committee's cattle hearing yesterday but it is worth repeating, we are currently seeing the largest increase in food prices in 40 years. I keep bringing up inflation in this Committee because it is warranted. These benefits have always been intended to be a tool to get people back on their feet from a hard time, not an economic incentive to stay on the sidelines.

To that end, the Department conducted its annual cost-of-living adjustment just last year and then increased benefits by way of an accelerated, debatable Thrifty Food Plan update. I believe there is still a focus from this Administration and FNS to increase SNAP benefit allotments and expand eligibility even further. Just yesterday, Democrats blamed meatpackers for high prices even when producers said inflation related to wasteful pandemic spending, supply-chain issues, and a lack of workers was the cause for these increased input costs in subsequent food prices. It seems obvious that the Department wouldn't be able to quantify mere rumors of price gouging when adjusting these prices, so why does the Administration insist on finger-pointing when it comes to the root cause of high food prices?

It is worth repeating that there are currently 11 million work-ready adults certified by their state workforce agencies who are receiving SNAP benefits but could start working immediately to fill the over 11 million open jobs in the United States. Getting these individuals to work could ease supply-chain issues immediately, and that would be done by increasing domestic production and productivity. Until this Administration pushes to do a better job of matching people with these jobs and disincentivizing the COVID culture of not working, these problems that we are talking about today are only going to persist.

So, Mr. Chairman, I want to say thank you for allowing me the time to make these remarks today. I don't have any further questions of the witness, and I yield back the balance of my time.

The CHAIRMAN. Thank you. And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is now recognized for 5 minutes.

Ms. SPANBERGER. Thank you very much, Chairman Scott, and thank you, Ms. Dean and Ms. Long, for taking the time to be with us here today. I really appreciate the opportunity to discuss SNAP and to reflect on the program's efficacy since the farm bill was last enacted in 2018. And at that point in time no one could have predicted the pandemic and just how vital these programs would be to provide food for families, children, veterans, and those with disabilities across our country. In fact, Congress demonstrated the importance of the SNAP program when, under the Trump Administration, we increased the maximum monthly SNAP benefit by 15 percent. That is because we know that SNAP helps families afford food while also boosting economic recovery.

For example, in spite of the pandemic, a USDA report found that U.S. household food insecurity remained unchanged in 2020. Another report from the last economic recession found that SNAP benefits generated an annual increase in rural output of \$46.8 billion while sustaining the employment of $\frac{1}{4}$ million rural workers. As the data suggests, SNAP and Congressional actions to enhance

SNAP both prevented hunger and strengthened local economies in the communities we represent across this country.

And so, as such, I am really appreciative of USDA's work over the past several years to implement the 2018 Farm Bill and contend with the challenges caused by the pandemic. And, certainly, in your testimony you mentioned a few areas the USDA is exploring to reduce the burden on families trying to access SNAP benefits. And as we turn towards the 2023 Farm Bill, I am especially interested in examining the ways that we can improve flexibilities for those who rely on SNAP to put food on the table, and I am particularly interested in discussion related to the exclusion of hot foods from SNAP.

And so, under current policy, a parent on their way home currently cannot pick up from the local grocery store with their SNAP benefits a hot rotisserie chicken for their children's dinner. And just to speak to that, rotisserie chickens are such an important sort of staple in my family because you pick up the chicken, you eat it hot, you have the leftovers, you make chicken salad, you boil the bones and make bone broth that you then use for soup a couple weeks later, a couple days later, stick it in the freezer. It is an economical way to not only feed your family that night with hot food, but it is an important way for people to make those dollars—certainly, we do it in my home—but to make those dollars work harder and feed better.

So, I want to speak a little bit. Congressman Rush has a bipartisan bill, H.R. 6338 that I am a sponsor of, that would repeal this exclusion. And so, I am curious if you could provide your thoughts on this current policy and discuss the potential impact it could have if we were to repeal this exclusion, because I think certainly all of us want to make sure that these SNAP dollars are going towards nutritious, good food that keeps people healthy, keeps people fed. So, could you please speak to that question and that legislation?

Ms. DEAN. Thanks so much, Congresswoman. I am a mom of three, so I totally appreciate the value of being able to pick up a rotisserie chicken as you are preparing a nutritious meal on the fly for your kids. The hot foods prohibition is in the statute, and so that is something that Congress would have to take a look at and so I am glad that you have a bill on it.

I think the issue is grocery stores look quite a bit different today than they did decades ago when those rules were written, and so one question I think we will have—because we have another part of the law that allows restaurants to take benefits for some specific households, senior disabled homeless—is what does this mean—if we allow hot foods—how does that translate over into restaurant involvement in the program? And I think that is going to be critical for the Committee to consider, and I am really not prejudging the issue, but there are over a million restaurants. What will be their role, and how will shifting that policy potentially shift the contours of who is a retailer and how they participate? So, I think that is the issue, that complex operational issue we want to work through with you. But I think we are all fans of rotisserie chicken as a good solution for dinner at home.

Ms. SPANBERGER. Well, and thank you, Ms. Dean. I really appreciate that response. And certainly, I appreciate the leadership of Congressman Rush on this issue. And I thank you for some input on that in terms of how we can make sure that the bill is the strongest possible bill that it can be in that it is focused on kind of efficient, nutritious, good food for our families and particularly with the hot food that makes for great leftovers such as rotisserie chicken. I will be following up on that. But thank you for your guidance and your feedback. And, Mr. Chairman, I yield back.

The CHAIRMAN. Yes. And now the gentleman from Georgia, Mr. Austin Scott, is now recognized for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And many of the questions that I have, have been answered, but I again want to reiterate what Ranking Member Thompson said about the need to have an honest discussion about this title instead of having Democrats simply say we are not doing anything with the title, it is untouchable. I don't have a problem—as my colleague from the other side of the aisle was just discussing—I don't have a problem with a rotisserie chicken being available as part of the program. I do have a problem with a Happy Meal or a drive-through being part of it. And I don't understand why we can't have an honest discussion about obesity with our youth and what is available to be purchased with SNAP products.

And so, I guess my question to the Under Secretary is why can't we move, and wouldn't it be better for people's health if we move to a system similar to WIC where you had to buy products that actually had a nutritional value to them instead of soda pop and potato chips? So, Secretary Dean, can you tell me why the Biden Administration would oppose this?

Ms. DEAN. Well, Congressman, thank you for the question. I think what I am hearing from you and so many Members of the Committee is a deep concern about improving overall diet health, improving our risk of diet-related disease, and in particular the risk to children. So, we share that concern. And that is why the Secretary has launched his Nutrition Security Initiative, which is about improving access to healthy, affordable food for all Americans, right, with the goal of improving diet health and their long-term health.

And I think we have to begin with making sure that Americans are aware of what a healthy diet is, that they know how to purchase it, they know how to prepare it, and then we are sure that they are eating it. And, I guess I would say we want to start from an affirming place. We want to start from believing that everybody wants the best for their kids because they do. But that just isn't within reach for a lot of families, and I think that is just going to be a much stronger place to go. And so, we would really love to see a plan to increase our work around MyPlate. We want to seek more public-private partnerships to promote healthy food and healthy eating. We want to partner with our grocers, with our healthcare professionals, with nutritionists around the country. There is just a lot more we can do, and our efforts shouldn't just be limited to our program participants. This is a whole-of-country problem, and it needs a whole-of-government, whole-of-country solution.

Mr. AUSTIN SCOTT of Georgia. Well, ma'am, just giving more money to people and allowing them to buy 200 calorie sodas in a 12 ounce can and potato chips is simply making the problem worse. And we have a system out there, in the WIC program where people are limited to products that are actually nutritious. Now, maybe that program—maybe the SNAP program doesn't need to be identical to the WIC program. Maybe it needs to include things like a rotisserie chicken, for example, that my predecessor just mentioned. But with barcodes and other things today, it would be pretty easy if the Administration was willing to actually make it a nutrition program instead of something that people can buy, again, soda pop and potato chips with.

So one other question that I have, Secretary, is the average balances that are showing up on the SNAP cards right now, I have had people at grocery stores tell me that people line up and offer to purchase other people's groceries for cash for a certain percentage of it, so you buy \$100 worth of groceries, I will put it on my SNAP card, and you give me \$50 for it outside. What is the Administration doing about that type of fraud?

Ms. DEAN. Congressman, thanks for the question. First of all, that kind of trafficking violates Federal law, and it is really critical that when folks see it, that they report it. We want to make sure that we and our state fraud investigators are following up and taking action—

Mr. AUSTIN SCOTT of Georgia. Has the Biden Administration prosecuted a single case of that fraud? Have they prosecuted a single case of SNAP fraud?

Ms. DEAN. You mean in terms of the judiciary or through administrative—we can absolutely follow up with you but, yes, we have a rigorous approach to addressing fraud.

Mr. AUSTIN SCOTT of Georgia. I would appreciate information on how many cases have been brought for fraud.

Ms. DEAN. Okay.

Mr. AUSTIN SCOTT of Georgia. Thank you, ma'am.

The CHAIRMAN. And, Deputy Secretary, please follow up with Congressman Scott's inquiry in writing.

Ms. DEAN. Absolutely.

[The information referred to is located on p. 822.]

The CHAIRMAN. Thank you.

And now the gentlewoman from New Hampshire, Ms. Kuster, is recognized for 5 minutes.

Ms. KUSTER. Thank you, Mr. Chairman, and thank you to the Under Secretary Dean and Administrator Long for being with us for this important hearing today.

SNAP has a proven track record of helping to mitigate hunger in New Hampshire and save thousands of families from slipping into the depths of poverty. Never was the safety net more necessary than during the COVID-19 pandemic. Not only was access to SNAP critical for so many Granite Staters and their families during the heights of the pandemic but the waivers and flexibilities granted to the SNAP program by Congress and implemented by the USDA made a tremendous difference as well.

A perfect example is flexibility around how to apply for SNAP. As you may know, I have introduced the Streamlining Assistance

Paperwork Act that would make permanent SNAP application flexibility granted by USDA in 2022 under the parameters of the Families First COVID package (Pub. L. 116–127). This flexibility allows states to process SNAP applications without expensive telephonic signature technology and saves applicants from having to make the trip to a state office to fill out the paperwork. That is critical for a rural state like mine, especially for people who can't easily travel or get time off from work. Not only does this flexibility cut a lot of unnecessary red tape, it still holds applicants to the same standards as if they had come into the office to sign the paperwork, thereby maintaining the SNAP program's integrity.

Administrator Long, do you believe the flexibilities extended to SNAP during the pandemic have been valuable and should be made permanent in the farm bill?

Ms. LONG. Well, thank you for the question, Congresswoman. We certainly believe that we had the opportunity to learn a lot about how the program can operate better through the kind of natural experiment of the pandemic. We are currently in the process actually of doing some fairly intensive conversations with our state agencies that administer the program to help them prepare for the return to normal operations, but that also provides us the opportunity to receive feedback about how they have experienced some of those flexibilities and have a conversation about what could be useful, going forward.

Certainly, the flexibility around the telephonic signature is something that we have heard from quite a few states they have found extremely useful and valuable, and we are taking a look internally at putting together our thoughts on how we might work with Congress to move forward to make that particular flexibility available, and we are happy to continue the conversation with you about other ways in which we might take the learnings of the last several years as Congress begins its work on the farm bill.

Ms. KUSTER. Excellent. Thank you. I also wanted to ask about the Federal SNAP emergency allotment, a modest but valuable boost in funds for SNAP participants that was also implemented under the auspices of the Families First bill. We know this allotment will expire in states still utilizing it as soon as the Federal public health emergency ends. And even though much work is being done to make sure families are made aware of this, I fear it will have a jarring effect, particularly as food prices remain high. Has there been consultation within USDA or the Administration more broadly about how we could gradually reduce this allotment instead of having a hard stop? And would you recommend that Congress take action to reduce the allotment along those lines once the health emergency has been lifted?

Ms. DEAN. Thank you, Congresswoman. We share your concern about basically when the allotments end, that it will be disruptive and confusing for a lot of families and will require many to rejigger and think through their monthly budgets. Of course, they were intended to be temporary, and so you are asking a really good question about is there a better way to taper them off that would be perhaps less jarring for households. We don't have the authority to do that within the Administration. Certainly, we would be happy to talk with you and others in Congress about whether you have

thoughts about ways to staircase it down so that families don't experience such an abrupt change.

Ms. KUSTER. Great, thank you, and we will follow up on that as well.

And thank you, Mr. Chairman, and I yield back.

The CHAIRMAN. Thank you. The gentleman from California, Mr. LaMalfa, is now recognized for 5 minutes.

Mr. LAMALFA. Thank you again, Mr. Chairman.

I want to follow up on something that Mr. Crawford was speaking about, Under Secretary, and I wanted to ascertain the jurisdiction standpoint here within the agencies here on interpreting the statutes as far as going back down to this healthy foods issues *versus* things that I think almost everybody unanimously would agree is that should we be looking at milk *versus* energy drink or soda pop and things like that? And so, it sounded like there was inconsistency in the thought or even the response on the ability to interpret the statute is available in the different branches of the agencies involved.

Ms. DEAN. I am very sorry, Congressman, if I left that impression. The definition of *food* is in the statute—the definition of what is an *allowable food* for SNAP—so we don't have the opportunity to shift that, I guess I would say, outside of I suppose a robust research demonstration project. But as a general matter, the statute sets the definition.

Mr. LAMALFA. Applies to SNAP but not to WIC, not to Thrifty foods, or the other—

Ms. DEAN. The other programs—

Mr. LAMALFA. They seem to have—it sounded like you have the ability to decide that within those others the same as you would within SNAP.

Ms. DEAN. Thank you. No, the other programs—and you should jump in here, Cindy, as a real expert in school meals and WIC, the other programs set a prescription package that needs to be informed by the *Dietary Guidelines*. So, in WIC it is a supplemental package that is informed by where participants in that program, say, have overall nutrient deficits where we need to supplement, and then in school meals, it is about putting a meal on a plate that aligns with the *Dietary Guidelines*. So, we update them in the case of those particular food packages based on the *Dietary Guidelines*. So, I am sorry if I am not being clear.

Mr. LAMALFA. Okay. Maybe it is pretty muddled, but everybody understands what the intent is here, right, is we want American-grown food that is nutritious from our ag sector or the processing that comes from that to be on the plates of people that are receiving taxpayer-driven assistance, not things that are not common sensibly as healthy, right, healthy foods, not that they are bad foods or just not targeted towards driving health because we get it on the other end, too. If people are purchasing things that are not positive for their health, then we are going to pick it up on the healthcare system on the other end if they are eating other things that cause obesity, *et cetera*, diabetes, what have you.

So, what is so difficult about the jump here within the agency here to say we don't want to have eligibility for soda pop and candy bars and all that sort of thing, potato chips and fast food to be part

of the program? Why can't we define it more straight up? And you have that ability to do so from what we are looking at within your jurisdiction.

Ms. DEAN. We have the ability in WIC and school meals to ensure that those programs align with the *Dietary Guidelines*. In SNAP, Congress sets the definition of *food*, sir, so it is Congress who decides what benefits can be used for in the stores.

But I guess the one re-frame I would put on your—I completely agree with you that we are all—it sounds as if we are all here with the goal of improving what Americans are eating, for the goal of improved health outcomes. But for us this problem is not limited to those who participate in Federal nutrition programs. This is a universal problem for most of the country. Almost no American eats according to the—

Mr. LAMALFA. But those are private decisions. Where the rubber meets the road is that we are expending tax dollars and would have a say in a lot of other things. There are strings attached to tax dollars on building roads and everything else, and so why would we be going down a path that is not helpful to the health of those folks? And, normal people are still wondering why are you guys doing that? Every farm bill, you have the discussion that runs into a big political problem. It was on a national broadcast this morning. A lady from Ohio was wondering why do you guys still have this stuff in these programs? And so, you are saying you do not have the jurisdiction to interpret that as far as SNAP goes, that Congress has to change the law itself?

Ms. DEAN. That is correct.

Mr. LAMALFA. Okay. All right. Thank you. I yield back, Mr. Chairman.

The CHAIRMAN. Thank you. And now the gentleman from Arizona, Mr. O'Halleran, is recognized for 5 minutes.

Mr. O'HALLERAN. Thank you, Mr. Chairman and Ranking Member, for organizing this important hearing. I also want to thank the witnesses for their participation today.

Food insecurity is a devastating issue for our Tribal communities. Roughly one in four Tribal families experience food insecurity in comparison to one in eight Americans overall. Before the pandemic, Apache County, a rural county in my district, had a food insecurity rate of 20 percent. This county is home to several Native American Tribes, including some of the Navajo Nation. During the pandemic, nearly half of Native Americans nationwide reported experiencing food insecurity.

The questions I have are these: The 2018 Farm Bill authorized USDA to conduct demonstration projects to enter into self-determination contracts with Tribal organizations to purchase agricultural commodities under the Food Distribution Program on Indian Reservations. Ms. Dean, are there lessons USDA has learned from the new demonstration projects in Indian Country that might be applicable to nutritional programs like SNAP so that we can better understand and address the food insecurity on Tribal lands?

Ms. DEAN. Thank you, Congressman. We are really delighted and thrilled with the self-determination projects and thank Congress. We are going to be able to extend them for the current grantees and offer new Tribes the ability to come into the program.

I think part of the lessons that we have learned is a new effort and a new conversation with Tribes about self-governance and self-determination, and so we are seeking to do that with respect to SNAP and also the components of SNAP, employment and training, nutrition education, so that we can make sure that we are in a better place for a conversation with you all about how to incorporate self-governance and self-determination into those aspects of the Act if that is of interest to Congress.

Mr. O'HALLERAN. Thank you. Additionally, SNAP is also essential to our rural communities. Following the Great Recession, SNAP benefits increased rural employment by 279,000 jobs and increased rural economic output by \$48.8 billion. However, accessing these benefits often presents major issues for those in rural communities. How can we strengthen and improve rural grocery stores and retailers to ensure access to healthy food in rural and Tribal communities?

Ms. DEAN. Well, our Rural Development mission area is definitely taking a look at the Healthy Food Financing Initiative and how it can help support and attract grocers to rural areas. We have the online shopping option that is now available, and as Administrator Long pointed out, we are seeking to dramatically increase the number of stores, particularly small individually owned grocers, who probably are very frequently in rural areas, seeing if we can bring them onto the program. So those would be two examples.

But we have to expand our reach into rural America. And as I am sure you know, this is a critical priority of the Secretary's—to make sure that USDA and across the whole-of-government are fundamentally serving those communities and thinking creatively and across mission areas so that we can fully leverage the support in those communities to see them revitalize and thrive.

Mr. O'HALLERAN. And the quality of food in my district, which is the size of Illinois, it just is not the quality that you can get in other places within urban areas throughout the state. And the distance between stores is terrible. Each Tribal government is different, though, just like each state. What is the USDA Food and Nutrition Service doing to work closely with each Tribe to help them tailor programs like the Food Distribution Program on Indian Reservations and SNAP to the needs of those Tribes?

Ms. DEAN. I would say two things quickly. One is regular consultation. We do about four consultations a year focused on FDPIR, but open to other topics, and we do also do collaboration on our other programs where we make a rule change there, we want to make sure we confer and consult with Tribes.

But, in addition, we need to strengthen our own capacity to work with Tribes, so our budget that the Secretary is testifying on I think just down the Hill today would include several additional positions to bolster our ability to support Tribes and their needs as they seek to leverage our Federal food programs.

Mr. O'HALLERAN. Thank you very much. I would like to sit in on one of those programs sometime. And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, and thank you, Congressman O'Halleran, for bringing up the rural and Tribal communities. They are facing some tremendous challenges. Thank you, Congressman O'Halleran.

And now the gentleman from Georgia, Mr. Allen, is recognized for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman. Can you hear me okay?

The CHAIRMAN. Yes, we can, Mr. Allen.

Mr. ALLEN. Very good. Thank you.

Deputy Under Secretary, thank you for joining us today for this important hearing as we review the Supplemental Nutrition Assistance Program. Obviously, we have a health crisis in our country, along with the food supply issues and obviously the cost of meat and other things. And I hear about this daily. In fact, as my doctor tells me, you are what you eat. And what you eat has, and your habits and that sort of thing has, tremendous implications on your health. And obviously, we want to promote good health in this country.

Currently, our country continues to have a sluggish rebound from the unprecedented stay-at-home policy measures enacted over the past 2 years. We have nearly five million childless nonworking adults that are not employed currently. These are folks that have no children, and they are 18 to 49 years old. At the same time, we have over 11 million job openings drop the country, and of course we have runaway inflation because of supply-demand issues caused by a workforce shortage.

The SNAP program was designed to work as a primer to get people through difficult times, and it has been successful doing that, but it was meant primarily for our children and certainly our elderly folks. But now it has become a generational program. In other words, we have generations that continue to be on welfare. We need to reform this program so that it serves its original intended purposes.

Under Secretary Dean, from your standpoint, I mean, do you look at—I mean, is USDA concerned about the health of the American people?

Ms. DEAN. Yes, sir, absolutely.

Mr. ALLEN. So, what measures has USDA taken as far as the food security issues to promote good health to the American people?

Ms. DEAN. So, well, sir, thank you for the question. Secretary Vilsack recently at Columbia University just launched what we are calling our Nutrition Security Initiative, and it has four core pillars. One is ensuring that all of our nutrition programs offer meaningful support, meaning sufficient support to secure a healthy diet, as well as that they are nutrition science-informed. Second is that we want to be promoting access to healthy foods and healthy foods overall. Third is collaborative action, work that we can do with nutritionists, educators, health professionals across the country. And then fourth, making sure that all of our work in this space is driven from an equity lens given that food insecurity and health disparities are not problems that are equally borne and that people of color in particular experience those problems at much higher rates. And so, we want to be mindful of what caused those disparities.

Mr. ALLEN. Well, so we are saying that the current farm bill is untouchable? So, I mean, and this has to be done legislatively as I understand, so how are we going to fix the problem if we don't do it legislatively?

Ms. DEAN. Sir, I am not saying the current farm bill is untouchable. Obviously, that is Congress' purview. But I think what we want to do is a stronger nutrition education—

Mr. ALLEN. Okay. Well, our Democratic colleagues are saying that this program is untouchable, but at any rate, I am just about out of time. One other thing that we need to get to the root of the problem on, and I don't understand this, but, we hear time and time again that one out of five children go to bed hungry in this country every night, and I don't know about the rest of the country, but in the 12th District of Georgia, during the pandemic, our children got breakfast, lunch, and a snack each day through our school nutrition programs. We made that happen. How is it possible that one in five children go to bed hungry at night, and why? Have you all investigated this problem?

Ms. DEAN. I don't have enough time to get back to given the time, but I am happy to follow up with you, sir.

[The information referred to is located on p. 823.]

Mr. ALLEN. Yes, we are out of time. Yes, that would be great. And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentleman from California, Mr. Carbajal, is recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman, and thank you, Under Secretary Dean, for your testimony. And thank you, Ms. Long, for being here today.

I must say, as somebody who when I was young my family had to be on SNAP, it is sometimes disconcerting to hear some of the over-obsession with real specifics, how we want to monitor and the guidelines and the specific nutrition of the subsidies provided to families that are food-insecure. Certainly, I think we all have the goal to promote good nutrition—make sure that the dollars are spent as such—and education, to educate more families as to what is more nutritious *versus* not nutritious. And I know we do that with a lot of the subsidies and support we give our food banks. They go a long way to now really focus on nutrition. I just wish some of my colleagues and good friends on the other side of the aisle were as dogged about the subsidies we give certain industries, oil companies and what have you, about how those dollars are being spent. But usually, it is those that have the least among us who don't have a voice that oftentimes we are over-obsessed with how they spend every dollar. We want government intrusion in that candy bar that they buy that maybe the rest of America buys as well.

Nutrition and healthy eating is a challenge that we all have throughout the country, irrespective of class. Certainly, it is sometimes more pervasive with those who have less means, but certainly, I do hope that we don't get over-obsessed with how we are helping the poor and then being very direct of how they should spend every single dollar.

I believe it is the basic function of government to ensure people in this country are not going hungry. SNAP is essential to ensuring that individuals are able to have access to food. Congress acted multiple times to provide flexibility to SNAP and bolster the benefits during the course of the pandemic. However, at the end of the

public health emergency, people receiving SNAP will see substantial decreases to their benefits.

Under Secretary Dean, is the USDA putting in place any plans to be ready for this decrease in benefits and the hunger cliff following this decrease?

Ms. DEAN. Thank you, Congressman, for your question and your comments. We are concerned that when the emergency allotments end, it will be an abrupt change for millions of households. At this point we are issuing about \$3 billion a month in emergency allotments, so it will be a dramatic shift if the public health emergency were to end in terms of—and to be clear, the public health emergency ending is a signal of a good thing in our country, but just thinking about the impact on households and monthly budgets could be very difficult.

So, we are working with states to make sure that they have good communications available for households. We want to make sure also that when households see their benefits change, probably many of them are going to be calling states, right, which will clog up phone lines and could lead to disruption and cause folks who are eligible to lose benefits, so planning for this pivot is critically important.

And the Secretary also has made investments in the emergency food system by ensuring that we had significant additional resources available through TEFAP and complementary programs to shore up emergency food.

I will say one of the worries we have looking ahead is what the impact will be for school food. That is an area where we know we will lose our expanded waiver authority on June 30th. We have called upon Congress to see if there is a way to extend it because that is a system we are not as confident can make the pivot to ensuring that they are continuing to provide meals to children during a period of higher food prices and labor difficulties. So, we really hope that we can work with you all on giving us some additional flexibility to help there.

Mr. CARBAJAL. Thank you. We have seen benefits associated with the expansion of online services across several sectors, including the online acceptance of SNAP benefits. This flexibility can be particularly useful if an individual does not have access to transportation or is caring for children at home. Under Secretary Dean, what are some of the successes of online services you have seen, and what are some of the challenges people have run into, and how can we improve these services so that they benefit more individuals, especially in rural areas?

Ms. DEAN. Well, how to capture all of the benefits of online, I think a great example is just managing your benefits. Many states offer an account management tool similar to what you might have with banking or your credit card management and you can go in and see when you have applied, what follow-up data or pieces of paper are necessary, what is your balance, so just giving households more transparency and agency over the process as opposed to it being some sort of bureaucratic black box where they feel powerless, right, for understanding what is happening with these processes. So that is a wonderful thing. Also, the ability to more quickly

adapt the forms and the questions to be responsive to what households may or may not understand.

The challenge is of course that so many struggling Americans don't have access to broadband at home, they may not have a mobile phone, and so if we shift all service to online, we would of course exclude many, many vulnerable individuals. So online services, it has to be at both ends to also in-person service, and we have to meet people where they are at. And we are certainly working to expand broadband to the whole of the country, but until we do—and to equip everyone with devices. But until we do, it has to be at both ends.

The CHAIRMAN. The gentleman from Nebraska, Mr. Bacon, is recognized now for 5 minutes.

Mr. BACON. Thank you, Mr. Chairman. I appreciate your testimony today. Deputy Under Secretary Dean, what is the agency doing to emphasize employment and training, especially when businesses are clamoring for employees? In Nebraska we have record low unemployment, but half the businesses are looking for employees, so we have a challenge there. Do you have staff on the ground guiding states in their quests to build for higher-quality programs? Thank you.

Ms. DEAN. Well, thank you. And the 2018 Farm Bill made quite a number of changes in direction in employment and training, in particular emphasizing better, higher-quality employment and training over sort of larger-scale, lower-quality services. So, a big part of what we have been doing has been implementing those changes. New regulations, lots of training on the ground for states to make sure that they are aware of the changes there, and then of course working with them on their plans.

Our goal is very much to make sure that E&T reflects what our local workforce needs are, and to make sure that we are matching individual participants to either training or jobs that makes sense for them.

I saw a terrific program in Nevada that actually really—sorry, it was quite impressive, and that was one that was set up by the casinos and local labor to train individuals for exactly what the Las Vegas hospitality industry needed in terms of folks, highly skilled staff prepared to work in restaurants or in hotels but then also credentialing them so that they can move up the system from a barback to a bartender, from a custodian to hospitality services. So, I think that is the kind of collaboration that we really want to see and support.

Mr. BACON. I echo that. And I know not all states are the same, but in many states with half the companies trying to hire and I have talked to some businesses that have the trades that will actually help people go through 2 years of school, get them licensed or certified. I mean, if you are looking for a job in many states, they are there and people will train you to do it, so that is something we can keep stressing.

I would like to switch directions a little bit and talk about the National Association of States Workforce Agencies or NASWA. Forty-one states and the District of Columbia took the pandemic legislation authorized option to use private contractors to help shore up their unemployment insurance programs during the pan-

demic. The states that took this option are both Republican and Democratic, governor-led, with more Democratic states actually taking advantage of this option. Further, NASWA has unanimously asked for an extension of this flexibility, and some SNAP directors have recently asked for 12 months of similar flexibility. So, you touched on this early on. Can you provide your position on this?

Ms. DEAN. Well, the statute requires that we use merit system personnel for certain aspects of state operations, so I think we have been focusing on making sure states understand where they can and can't use private contract workers if that is a flexibility they choose to avail themselves of in terms of expanding their capacity.

I do want to say that when SNAP—before this issue came up, it was merit systems work or whatever the states construct was in terms of a balance of private and public workers that allowed the program to grow dramatically in the early days of the pandemic under extraordinary circumstances, right? Many workers had shifted to home. They hadn't been working from home before. It was an incredibly impressive.

So, I think the current problem that we are looking at is states are, like many employers, having difficulty bringing on labor and being able to predict what the future will hold. So, we want to work with them on that and make sure they understand what their options are. But the system we have now has worked well for 40 years, 4 decades, and I would be very careful before making any significant changes to it.

Mr. BACON. But are we having backlogs with the SNAP processing? Because I hear we are, so there may be need in some states to have this flexibility for SNAP like it is with unemployment insurance.

Ms. DEAN. Yes, certainly some states are experiencing backlogs, and we would imagine when the public health emergency ends and their current flexibilities both in SNAP and the other programs that they operate, there is going to be a disruption and a shift. So, we are working very hard to make sure—they are trying to get ahead of that problem and prepare for it. And thinking through their business model and who does what is certainly a relevant question on their part. We think they have more flexibility than many of them are availing themselves of now, though.

Mr. BACON. I would just close. We don't want to see with SNAP what we are seeing with IRS. We have a year backlog of paper-work.

So, with that, thank you, Mr. Chairman.

The CHAIRMAN. The gentlewoman from Washington, Mrs. Schrier, is recognized for 5 minutes.

Ms. SCHRIER. Well, thank you, Mr. Chairman, and welcome to our witness.

I first just want to take a moment to recognize how vital this conversation and SNAP are right now. This week, new data from the U.S. Census Bureau shows 11.2 percent of households reporting food insecurity. The number is even higher for families with children, 14.5 percent. And the statistics for children—and I am a pediatrician—are that one in six children do not reliably have enough to eat, one in six.

I also want to just take a minute to point out that my colleagues and I have had many discussions about the issues at food banks, the long lines over the past year or 2, the way that they have stepped up during the pandemic, distribution, donations more than ever, but I also want to remind those listening that the primary program to help individuals facing food insecurity in this country is SNAP. It is not food banks. They are supposed to be the last resort. And if SNAP better supported the dietary and nutritional needs of food-insecure Americans, it would really reduce the burdens on food banks, the rest of the hunger relief system, which has faced so many challenges these past couple years. And then I would add that SNAP also supports local economies because those purchases are made at local stores.

I also want to just say that one crucial component of making sure people have enough to eat is addressing barriers for college and other post-high school students to access SNAP because those one in six children don't suddenly have enough resources when they go past high school. The farm bill allows an exemption to the 20 hours per week work requirement for students awarded work-study, but for a huge percentage of students eligible for work-study, there are simply no jobs available. And in Washington in recent years only 2.8 percent of students eligible actually got that work. I will add the full-time education that I have, whether it is grad school, college, or apprenticeship enrollment, that is comparable to at least 20 hours of work, and we should frankly just allow full-time students access to the SNAP programs. All of that is why I am a co-sponsor of Representative Gomez's EATS Act (H.R. 1919, Enhance Access To SNAP Act of 2021), which permanently expands eligibility for SNAP to students attending institutes of higher education.

I want to ask you, Under Secretary Dean, about whether we can find some practical, pragmatic solutions here. Green River College in my district, the average student is 28 years old, many have children. SNAP is a vital resource for these families and millions of others across this country, and we just need to make it simpler for these students when they are strained to access benefits. Can we recognize that the current regulations just don't account for the situation on the ground? And what flexibility might you be able to find like circumstances out of their control like not being able to get a job, for example?

Ms. DEAN. Well, Congresswoman, thanks for the question. And you are right, it is a really important and timely issue. The SNAP eligibility rules for college students were written with what we call a traditional college student, so my kid who actually goes to the University of Washington in Seattle, right, who temporarily appears lower income but actually has the support of their family. And there was concern in the early 1980s that those folks were getting eligibility to SNAP and they needed to be precluded.

But, as it turns out, the traditional student isn't in fact who are predominantly going to college or pursuing higher ed these days. I believe it is $\frac{3}{4}$ of students are actually nontraditional, meaning independent from their parents or have a child of their own. And so, you are right that we have to figure out how to refresh these rules that are just wildly out of sync with what the reality is and

probably are very much inadvertently keeping out needy individuals from participating in the program.

So, Washington is very much a leader here. I just recently met with Claire Lane and other advocates from across the country who are deeply concerned, and we are going to see what we can do there. And we would really welcome working with you on making improvements in the farm bill.

Ms. SCHRIER. Thank you. And yes, there are food banks on college campuses in my district.

In my little bit of time remaining, I just want to touch on a program that is really near and dear to my heart where we are also leading the way in Washington State, which is the GusNIP program. And it provides incentives for SNAP participants to increase their purchase of fruits and vegetables. And we need more funding for programs like this. Again, as a pediatrician, I can tell you food is preventative medicine if you choose the right foods, incentivize that, and train kids up on eating the right foods. So, I want to address this as an urgent health issue and I want to yield back. Thank you very much.

The CHAIRMAN. The gentleman from Indiana, Mr. Baird, is now recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman, and I appreciate you and the Ranking Member holding this important hearing. I always appreciate the witness being with us and having the opportunity to discuss the SNAP program.

So I am going to start out with we know that consumers really need to increase their fruit and vegetable consumption, and having the availability of all forms of produce, whether it be fresh or frozen, canned, or dried, can be one beneficial tool to do so, especially when fresh-only options are not available in parts of the country all year round.

So, Deputy Under Secretary, what is FNS doing to ensure SNAP participants feel empowered to choose other forms of fruits and vegetables like frozen options in alignment with the *Dietary Guidelines* recommendations while also addressing this nutrition security. Madam Under Secretary?

Ms. DEAN. Thank you, Congressman. And you are absolutely right that frozen and other forms of fruits and vegetables are healthy and nutritious. They are also really low-cost quality options. So a big part of the way that we introduce them as a practical, low-cost, quality choice is through our SNAP nutrition education programs, as well as through USDA's MyPlate where we translate the *Dietary Guidelines* into menus. And that is how we fundamentally seek to inspire households to select the array of fruit and vegetable choices that they have.

Mr. BAIRD. Super. Can you also—what is the agency doing to tangibly ensure that rural communities like my district have access to healthy foods? And if so, is there more to be done to ensure parity with their urban counterparts?

Ms. DEAN. I feel like you teed me up for that question. The Secretary is going to be so pleased. Absolutely there is more that we can do for rural America, and that is why for the past month the Secretary and Cabinet Secretaries across the Administration have been on a rural tour to show how we can leverage all of govern-

ment to ensure that we are supporting and working to revitalize rural communities. So, I mentioned earlier that the Rural Development mission area at USDA has a program called the Healthy Food Financing Initiative, which provides resources to support grocers to come in to rural areas. And the Secretary is a champion of finding ways to see if we can expand that program.

Mr. BAIRD. It is interesting, *food deserts*, when I first heard that term, it didn't seem possible in a rural community like ours, but I am coming to find out that there are those situations in many communities.

But my last question deals with work. So, could you tell us what the agency is doing to emphasize employment and training, especially when the businesses are clamoring, trying to get employees? So, do you have staff on the ground that are guiding states to help their guests to build higher-quality programs?

Ms. DEAN. Yes, sir. And let me just add in response to your last question, too, of course offering SNAP participants an online shopping option is a real way to address some of the food desert issues that we know rural Americans face, so I just wanted to flag that from before.

In terms of employment and training, that is a program that states run with our Federal support, but the 2018 Farm Bill really did a terrific job at helping us to work to reshape the program to make sure that states are designing programs that are much more responsive to local employers' needs, incorporate local workforce programs and orientation to how to connect eligible workers to the available jobs in the community, and to make sure that the individuals that we are matching to training or employment are well-suited for those things. So, we provide support to the states in that and will be very soon on the ground in terms of assessing and reviewing what they are doing this fiscal year and the next fiscal year.

Mr. BAIRD. Well, thank you, Madam Under Secretary. We appreciate the opportunity to be with you. I appreciate you being with us. I yield back.

The CHAIRMAN. The gentleman from California, Mr. Panetta, is now recognized for 5 minutes.

Mr. PANETTA. Thank you, Mr. Chairman. I really appreciate this hearing, which I am sure there will be many hearings in which we are going to talk about this very, very important subject of the Supplemental Nutrition Assistance Program, especially as we approach the 2023 Farm Bill. And that is why it is so important to have Deputy Under Secretary Dean here, as well as Administrator Long. Thank you for your participation.

I hail from the Central Coast of California. We have a lot of beauty, but we also have a lot of bounty, and that is with our fresh fruits and vegetables especially. As you know, in order to harvest those fresh fruits and vegetables, we can't just send a machine through the field. It is all about farmworkers. It is all about people who are actually in the fields bending down, discerning what is a fresh, ripe, aesthetically pleasing product to then package into a clamshell or package appropriately and get it to the store shelves.

Those farmworkers are surrounded by fresh fruits and vegetables all day long. Unfortunately, what we have seen is that their access

at home is not as plentiful as it is when they are at work, and it has been unfortunate that this has been a problem.

However, let me just also give a shout-out to some programs that we have there locally and from our schools, which are starting to give their children exposure to our fresh fruits and vegetables. Starlight Elementary is developing a kitchen and a garden of course there. Our farmers are very generous. Some have pantries. Lakeside Organics in Watsonville has its own pantry for its farmworkers to choose from after work. And then our food banks are absolutely awesome and they have been awesome during the pandemic.

However, as you know, many families, many farmworkers still greatly rely on SNAP, especially over the last few years with the pandemic, which has definitely led to higher food insecurity in many parts of my district. Salinas Valley, one in four children were still food-insecure in 2021, and then Santa Cruz and San Benito Counties, household food insecurity was over 30 percent unfortunately.

So, I am obviously proud of what we did at the Federal level to increase SNAP assistance, but as you know and as you said today, that is temporary. There is more we have to do, and especially with the upcoming farm bill. We are going to have to prepare for the fights of increasing and keeping SNAP as to what we got.

There are many programs in which we can make SNAP more convenient as well. The SNAP CARRY Act (H.R. 6688, SNAP COVID-19 Anti-Hunger Restaurant Relief for You Act of 2020),* a bill that I authored, would open up the Restaurant Meals Program for all SNAP households and support our restaurants that have been rocked over the past few years that need to continue to recover.

My question to you is about the USDA and how is it supporting states and restaurants to become part of the Restaurant Meals Program? And is there anything else that can be done to support this important aspect, a food aspect to make the SNAP benefit more convenient and meaningful to all participants?

Ms. DEAN. Thank you, Congressman. California has been a real leader on the Restaurant Meals Program. California and just a few other states have taken advantage of it, and so I think during the pandemic we saw an uptick in the number of states interested because of the very issues that you raise.

Often when we see states holding back on an option, it is just simply that they don't have the experience. They don't necessarily have the models to look to. So, I think with the few more in the program and there are several more queued behind, that will just create a more robust conversation amongst peers about the value and interest and we are likely to see it grow. And we will of course support that as states show more interest in taking on the program.

Mr. PANETTA. Outstanding. I have a minute left. I just want to go on to another topic. I am also a Member of the House Armed Services Committee, and I have been working to get military hunger prevention legislation across the goal line. Currently, you have

* **Editor's note:** the legislation was introduced May 1, 2020 in the 116th Congress.

tens of thousands of servicemembers who struggle to feed and support their families, around 20 percent of active servicemembers actually. I am ashamed to say it. Current SNAP guidelines often disqualify them from accessing this Federal lifeline, as you know.

Senator Duckworth in the Senate and myself have introduced the Military Hunger Prevention Act (S. 1488/H.R. 2339), which would expand eligibility and modify income calculations to exclude the BAH, which is used to determine SNAP eligibility where we are working right now in the House on a version. Can you commit to working with us to find a suitable solution to address the issue of military hunger and provide our servicemembers access that they deserve at a minimum to the established nutrition programs like SNAP?

Ms. DEAN. Of course, sir. And let me just say we are so appreciative of the basic needs allowance that Congress just passed. We think by raising pay of military members, actually making it so that their pay is that they don't qualify for food assistance because they are getting sufficient income is really going to be a powerful way forward. But absolutely, we are happy to work with you.

Mr. PANETTA. Thank you. Thank you for your service. Thank you for your testimony today. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. The gentleman from Iowa, Mr. Feenstra, is recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Scott and Ranking Member Thompson. And I also want to say thank you to the Deputy Under Secretary for testifying today, I am very grateful.

Making sure Americans are fed remains a shared and critical goal for this Committee, I think for most people in Congress. My state was home to Norman Borlaug, who was very instrumental in saving billions of people from starvation over the generations. His statue is honored in Statuary Hall, and he also received the Nobel Peace Prize for his work.

Those who are vulnerable and need food should have access to it. Obviously, title IV, the Nutrition Title of the farm bill, makes up to 80 percent of the authorized funding, so it is important that we get it right as we move forward. We are trusted by constituents to be good stewards of the taxpayer dollars, and my district in northwest Iowa is almost entirely made up of rural communities. Seventeen percent of my district are seniors with seven percent being veterans.

So, this is my question. This past Monday the Government Accountability Office released a report regarding the oversight and collaboration efforts to support veterans with food insecurity, and we just talked about this with Congressman Panetta. Broadly speaking, the GAO's recommendations include the VA fully monitoring and evaluating the effectiveness of these efforts and that the USDA improve its collaboration with the VA. So, Deputy Under Secretary Dean, can you talk to me or talk through the collaborative efforts as you see them today and what the agency plans to do to further ensure that veterans understand the nutrition supports available to them?

Ms. DEAN. Absolutely, Congressman. The food insecurity rates amongst veterans are disturbing, and it is really critical that we take action to address it. So, my team meets very regularly with

the Department of Veterans Affairs, but, after looking at the GAO recommendation I am going to ask them whether it would benefit the partnership to formalize that, as the recommendation suggests.

But the framework about how we have gone about this is we work to create material that can go directly to veterans to make them aware of their potential eligibility that goes into their welcome home kit that VA passes out. We do training when VA asks for it of their nurses and social workers and others who are directly supporting veterans to make sure they are aware of our programs so that when they are in a conversation with veterans or aware of a vulnerability that they can help connect. And then we are encouraging states to use their SNAP outreach dollars to do direct outreach to veterans. But we talked with other Members on the Committee earlier about the opportunity to do more and whether the farm bill offers the right time for our conversation about that.

Mr. FEENSTRA. Yes. Well, I thank you for those comments. I think it is really good to formalize, as the GAO noted, I think it is very important. And I often think that veterans have done so much for us and they are very proud people, that sometimes they don't ask. And sometimes we have to look out and say how can we help, and I hear you saying that.

Deputy Under Secretary, another question. Your testimony closes with a call to further strengthen SNAP. As I mentioned, we need to be deliberate when we are making changes to this program. We have to be very focused. Seeing title IV, it will cost roughly about \$1 trillion over the next 10 years, which is very significant. So how do you reconcile the dollars with your programmatic goals? I mean, I look at results-based government. And results-based government is saying, "Okay, here is the objective, here are the goals, here are the outcomes." Do you see anything like this going into these types of programs?

Ms. DEAN. Well, I think there is extraordinary evidence to support SNAP in terms of the outcomes that it achieves both in terms of alleviating immediate hardship and then over the longer-term poverty reduction, food insecurity, and then there is powerful evidence to show that children who received *in utero* or while as very small children have better health, employment, and education outcomes.

But because that evidence base is so powerful, and honestly, evidence underlies all of our programs at FNS, we want to continue to make investments to assess how the programs are performing relative to expectations, so we will continue to do that.

Mr. FEENSTRA. Well, and I appreciate that. I just think we are a government together. It is not government in D.C. It is we the people, and we the people are paying these dollars through our taxes. And I think we have to make sure we get it right always. And that is always a challenge, but we get it right through facts and figures and making sure that we look at the analysis and say, okay, this works or this doesn't. And sometimes we keep programs going on and on forever and sometimes there are new ones that we could put on and stop other ones. So, thank you for those comments. And Mr. Chairman, I yield back.

The CHAIRMAN. Sure. And now the gentlewoman from Iowa, Mrs. Axne, is recognized for 5 minutes.

Mrs. AXNE. Thank you, Chairman Scott, and thank you, Under Secretary Dean, for joining us today. We are just going to keep the Iowa theme going here.

I am looking very much forward to working on the 2023 Farm Bill, and on behalf of Iowa farmers and producers in particular, but also so that we can support strong nutrition policy that reduces food insecurity and improves access to healthy, sustainable foods for all Americans. And that means local.

In my home state there are over 400,000 food-insecure Iowans. That is roughly one in seven adults and one in five children in Iowa not having reliable access to food. These aren't just numbers. As we all know, these are our friends. They are our neighbors. They are our community members. They are the kids in our schools that are struggling to get by.

And thankfully, though, we have many dedicated Iowans doing a lot of great work to address food insecurity, but unless Congress continues to support and improve critical programs like SNAP, we are unlikely to make any meaningful progress towards food security.

And so, I first want to applaud you and the USDA's actions to expand the Thrifty Food Plan, as directed by the 2018 Farm Bill. The USDA recently re-evaluated the Thrifty Food Plan calculation, and that resulted in higher SNAP benefits for families. So, the updated Thrifty Food Plan, while modest, is estimated to lift about 2.4 million Americans, including more than a million children, out of poverty this year. And this also has tremendous impact for Iowa families. Just last year, SNAP benefits helped over 285,000 Iowans with nearly 70 percent of those participants being families with children and a majority of them in working families.

So, Deputy Under Secretary Dean, I want to thank you and others again for your hard work on expansion of the Thrifty Food Plan. But I am concerned, however, with how food-insecure families will manage as these pandemic-related emergency allotments for SNAP expire. And as you are probably aware, Iowa has chosen to end those emergency allotments starting this month, which means many Iowans have seen their monthly SNAP benefits reduced. So, I would like to look at that. In your opinion, what has the impact of those emergency allotments been, particularly in rural areas over the past 2 years? And what does the end of these emergency allotments mean to families in Iowa?

Ms. DEAN. Well, thank you, Congresswoman. As you can imagine, given who we work for, we are on a very vigilant Iowa watch. So, I am actually going to turn it over to Administrator Long to respond.

Ms. LONG. Thank you for your question, Congresswoman. We do have some data available for the State of Iowa with respect to the impact of emergency allotments and the impact of the ending of those with the end of the public health emergency. So, as you know, the last month of emergency allotments were paid out in March, and our data indicates that about just under \$30 million was provided to SNAP recipients in that month. And that was to support about 142,000 households who participated in Iowan SNAP, so that gives a sense of the importance that the emergency allotment has provided and the impact of the transition.

Mrs. AXNE. Well, thank you so much, Ms. Long, for bringing that up. When you talk about this \$30 million, 142,000 households, what do you think the end of this emergency allotment will mean to those families?

Ms. DEAN. We can both jump in. I mean, it is going to be very disruptive as they sort out how to re-budget.

Ms. LONG. Yes.

Ms. DEAN. One of the groups that will have the biggest impact are seniors. Many of them would typically receive a much smaller benefit, \$40 or \$50 a month, but they have been receiving the maximum allotment, and they will see quite a big drop-off. That is very disruptive. I also think it will have a big impact on community agencies who help support families, and so we may see many families turning to emergency food. And so, we are looking for ways to make sure that we are continuing to support that community as well.

Ms. LONG. Yes, and I would simply add with respect to the impact, it will also impact your state administration of the program. I think Deputy Under Secretary Dean mentioned earlier that we recognize when these changes occur and the pandemic benefits are transitioned out, there are likely to be a lot of questions and issues that come up for recipients, which is going to translate into sort of more telephone calls and expanded workload that the state agency will be managing.

Mrs. AXNE. Well, I appreciate you letting me know about that. Those are not good things. And the last question I want to ask you then—and I think we also have another impact because studies have shown that for every \$1 additional in SNAP benefits, it equates to \$1.50 or more returning into the economy. What impact will the revised Thrifty Food Plan have on Iowa's economy, and what will be the impact of the grocers, grocery retailers in our state?

Ms. LONG. Yes, well, I think it was mentioned earlier the re-evaluation of the Thrifty Food Plan resulted in a 21 percent increase in the value of the Thrifty Food Plan. And just looking roughly at data from Iowa, the last year we have was a couple years back, but it looks like \$134 million worth of benefits were redeemed at Iowa retailers, so if you just kind of apply that 21 percent difference to that figure, that would suggest that that change means about another \$90 million available to the Iowa economy to support families and then \$90 million in revenue. That same \$90 million will certainly flow through retailers in those communities.

The CHAIRMAN. Thank you for that. The lady's time has expired.

And now the gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. Well, thank you, Mr. Chairman and our Ranking Member.

Deputy Under Secretary Dean, can you walk me through why the update to the Thrifty Food Plan, as required by the 2018 Farm Bill, was accelerated and finalized without regular updates to Congress? Was it simply coincidental or was it accelerated purposefully?

Ms. DEAN. I think the quick answer to that is that on the second or third day of his Presidency, the President directed USDA to see

if we were able to undertake the reevaluation more quickly, and we assessed that we were able to do so.

Mrs. CAMMACK. Okay. So, we only got these updates through *Bloomberg*, *The New York Times* and *The Washington Post*, so it would be nice if the Administration would acknowledge that, as required by the GAO report, that Congress should have been notified. But to me it looks a lot like your agency and this Administration wanted to avoid the criticism more than anything for what has been done here and push through the historic increase in SNAP by adding calories to the diets of Americans, which if you look at the research, it is actually contrary.

So, I say that to say, to the consternation of my colleagues across the aisle, I put forward an amendment last year in the budget reconciliation to delay the update until a full GAO investigation could be completed. I think that is critical, and I think the American people deserve transparency and accountability. And I am sure you would agree with that.

But I want to move on to program integrity moving forward because it appears that FNS opposes using a blended workforce to supplement merit staff in determining household eligibility. Now, at times of rapid caseload increases, it seems like FNS would leap at the chance to ensure efficient eligibility determinations, especially when other safety net programs do just that regularly. So, if this is true, can you tell me the rationale? And will FNS make a commitment to work with Congress to pass legislation allowing eligibility determinations to be made by contracted personnel?

Ms. DEAN. Congresswoman, we don't oppose a blended workforce. In fact, most states have them. The question is about where to draw the line with which functions need to stay with state or local government workers. So, we are focused on, and we believe this is where the statute is, eligibility determinations, the interview, and areas where we are maintaining privacy of very private personal information from households. So that is sort of the core nexus that we think needs to stay with state personnel.

But the prior Administration put out guidance in 2020 that outlined some of the functions, given technology and the way—what is the right way to say—the business flow has changed, identifying new opportunities to consider, as you pointed out, bringing in a blended workforce. And I think that was very sensible, and we have been talking with states about it when they raise their labor force challenges.

Mrs. CAMMACK. I appreciate that feedback. It is not every day that you hear this Administration compliment the previous Administration's work, so I do appreciate that.

And I do want to end on this because I do think that we can all kind of come together on this. And as someone who about 11 years ago found myself homeless, I am not sure if you are familiar with my journey to Congress, but a little over a decade ago I was homeless, and now I serve in the House of Representatives along colleagues who, while I was homeless, talking about these same programs, were here.

So, I think by the very definition of *insanity*, right, doing the same thing over and over and over again and expecting a different result, I think it is time that we start looking at new approaches.

And we talk about SNAP as a safety net, and we talk about it in terms of bringing integrity and a hand up rather than a handout. And I think every Member on this Committee, every Member in the House of Representatives serves constituents that are in need of this program. So we want it to be useful, but we don't want it to be a lifestyle. And we want to talk about self-sufficiency and integrity without making people dependent. And it seems like today we deal with a lot of programs that are really designed by their very nature to create dependence rather than self-sufficiency.

So, I hope this Administration will work with us on that and will not see COVID as an excuse moving forward. I look forward, truly, to working with my colleagues and the Administration to shore up any future updates. Hopefully, we can work closely on those updates to ensure that it cannot be used in a blatantly partisan manner, as we have seen in the past.

And with that, I yield back. And thank you for being here today.
Ms. DEAN. Thank you.

The CHAIRMAN. The gentlewoman from the U.S. Virgin Islands, Ms. Plaskett, who is also the Chair of the Subcommittee on Biotechnology, Horticulture, and Research, is now recognized for 5 minutes.

Ms. PLASKETT. Thank you so much, Mr. Chairman. And I also want to thank the Subcommittee Chairwoman, our good colleague, Congresswoman Jahana Hayes, for working with you, Mr. Chairman, on having this hearing, which is so vitally important to the farm bill.

I have several questions that I would like to ask the witness. And I want to thank you as well for your honesty and for your openness and hearing our suggestions and having a discussion with us.

Now, I understand that the USDA ERS study showed that food insecurity in the U.S. has remained steady in 2020 when compared to 2019, despite the pandemic. However, in the Census Household Pulse Survey Data for early April of this year, 11.2 percent of adults, or nearly 24 million adults, reported that they do not have enough to eat in the previous week. It is clear that quick Congressional action during the early portion of the pandemic was successful in staving off the worst potential hunger crisis. The increasing hunger we are now seeing is due to a number of factors. But how can USDA and Congress, if necessary, act to ensure that our safety net programs like SNAP are providing sufficient support for Americans in need?

Ms. DEAN. Thank you, Congresswoman, for your question. What is the right way to say it? We were very pleased that the response that wasn't just through food assistance but through a really robust set of expansions of support to households during a period of incredible crisis. It worked, and I think that is an important lesson for the future.

Ms. PLASKETT. Right. Whatever anybody says, the child tax credit worked for American families.

Ms. DEAN. That is right where I was going, ma'am, and that is that—you asked me what we could do—I think the President's agenda on making sure that, as we recover, we are recovering in a way that works for all and that lifts folks up, investments in

childcare, continuing the expansions of the CTC and the EITC, supporting housing, as well as the investments in summer feeding that the USDA sought for building off of pandemic EBT, those would be critical investments to addressing the hardships that you described.

Ms. PLASKETT. Thank you. My second question is related to the Farm to School Grant Program. Now, the Department of Agriculture's Farm to School Grant Program includes \$5 million in annual mandatory funding. And since its inception in 2013, USDA has awarded over \$52 million through Farm to School grants, funding a total of 719 projects, reaching almost 21 million students and 47,000 schools. We have seen increased demand for Farm to School programming, and as we emerge from the pandemic, we must ensure that this program has the necessary resources. Do you support proposals like the Farm to School Act of 2021, H.R. 1768, to allow more of these impacted projects to be realized by increasing the annual mandatory funding to \$15 million and the maximum grant award amount of \$250,000, expanding markets to local farms and targeting increased participation? So targeted participation, expanding markets to local farms, and increasing the mandatory funding, amongst other provisions?

Ms. LONG. Well, thank you for that question, Congresswoman. We certainly share your view on the incredible value of the Farm to School Program. You are obviously very well-versed in its impact. I can share from personal experience that nothing is more motivating for schools and students and the entire community than really engaging around where the food comes from and integrating what is happening at schools and what is happening in the broader community, including local producers. So, we would be absolutely delighted to work with you moving forward to look at how we can strengthen that program and some of the ways you have described, we would also be happy to offer other observations and experiences.

Ms. PLASKETT. Well, our office is excited about the work that we have coming up and how we can all be supportive of one another. In the Virgin Islands, with the amount of students that we have living in poverty, we know how critical the Farm to School Program is to not only support our small farming community—micro-farmers that are one of their primary markets is this—as well as to our seniors, but also to ensure that our students have nutritious food so that they can think and they can learn and they can be productive members of our society.

So, again, thank you, Mr. Chairman, for the opportunity to speak and to ask questions of these witnesses, and I yield back.

The CHAIRMAN. And thank you, Ms. Plaskett.

And now the gentlelady from Louisiana, Ms. Letlow, is recognized for 5 minutes.

Ms. LETLOW. Thank you, Chairman Scott.

I represent the 5th District of Louisiana, which is home to many rural communities, and agriculture and small businesses are the backbone of our local economies. When reviewing the USDA nutrition programs, I believe it is essential to ensure they are adequately meeting the needs of families, especially in rural America where many lack access to fresh foods like fruits and vegetables.

In the 2018 Farm Bill, Congress authorized more than \$½ billion in mandatory funding over 10 years for the Gus Schumacher Nutrition Incentive Program to incentivize SNAP recipients to eat fruit and vegetables. In addition, Congress spent another \$75 million in the American Rescue Plan Act with no strings attached.

Fast-forward 4 years. Louisiana hasn't seen a dime of this funding expended in retail grocery stores where most SNAP recipients do their shopping. Even if there were grocery stores offering these incentives, we wouldn't be able to find those statistics because the USDA hasn't updated the GusNIP retailer store locator data in years.

Deputy Under Secretary Dean, the 2018 Farm Bill prioritized allocating GusNIP funding to retail locations. How has the USDA adequately provided retailers an opportunity to participate in this program?

Ms. DEAN. Congresswoman, I guess I will need to get back to you on that. GusNIP is operated through another arm of USDA, but I take your—I am concerned about your concerns, and so I want to make sure that we are responsive to—I would flag that the farm bill also included another provision which allows retailers themselves to offer incentives to SNAP participants, and that, too, we haven't seen a robust take-up of. And it is an area that I want to explore with my team. I feel that retailers across the country are participating with the program, they are supporting participants through their grocery stores, and we would love to see them be offering more incentives at their own direction.

Ms. LETLOW. Thank you. I would appreciate that information. And it is also my understanding that these incentives are only available at farmers' markets in Louisiana, yet farmers' markets represent less than one percent of all SNAP redemptions. My grocery retailers who serve SNAP populations are very eager to participate, but they don't even have that opportunity. Why is this, and what can we do to change it?

Ms. DEAN. Well, I can't speak to that particular issue, but funding for GusNIP is limited, so wherever it operates, it is smaller than we would like it to be, so that is of course something we are happy to talk with you further about.

[The information referred to is located on p. 823.]

Ms. LETLOW. Okay. As our Committee considers the farm bill reauthorization, it is essential to ensure these funds are getting to the individuals they are intended for and need them the most. One reform could be providing these incentives directly on the SNAP EBT card to help at-risk populations. Do you have any feedback on this kind of proposal?

Ms. DEAN. We couldn't agree with you more, and that is something that we are looking at is how to streamline and coordinate all of our incentive programs, farmers' market programs, and make sure that we have simpler, easier solutions that would leverage off of the EBT benefit.

Ms. LETLOW. Okay. Thank you. I look forward to working with you on that and my colleagues to improve this program and provide greater transparency. Thank you, Mr. Chairman. I yield back the remainder of my time.

The CHAIRMAN. Thank you. And now the gentleman from Florida, Mr. Lawson, is now recognized for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman and Ranking Member, for this hearing today. And, Madam Under Secretary, you have heard earlier from some of my colleagues about student hunger. The reason why I make this statement is I have here maybe as many as almost 60,000 students. And I know while the Biden Administration acted to support college students during the pandemic, COVID-19 has only worsened food insecurity and intensified racial disparities and hunger among students. Once the public health emergency ends, the waiver in place to expand SNAP eligibility for college students will expire, and many will lose access to this very important vital lifeline that they have.

My question is, the bill that I sponsored, H.R. 6272, the College Student Hunger Act, would make permanent the temporary eligibility waiver passed in the Consolidated Appropriation Act of 2021 and includes additional waivers for college students who are eligible for Pell Grants and reduce the work requirement to 10 hours a week, among a number of other things. What else do you believe can be done by Congress to better address college students' specific needs?

Ms. DEAN. Well, thank you, sir, for the question. I think we have been talking about the struggles of college students and college student hunger, which is of course a serious concern, but I think the broader question is affordability of college and the affordability of pursuing any kind of credential or degree through higher ed. That is fundamentally a pathway to more opportunity in the workplace, and that is what—the President put forward some fairly bold initiatives, for example, to make a community college free of charge to all students.

Now, we may not be pursuing that path, but I think the broader question is higher ed and college affordable is really the core one. And then when folks are pursuing a credential, a degree, additional higher ed training, how do we make sure that we are adequately supporting them?

So, I think all of the ideas that you put forward are terrific, and I think we also want to make sure we do more, and perhaps that is with Congressional direction or support, but that we are doing more with the Department of Education to make sure that education institutions are aware of all of the supports such as SNAP or health coverage and that they are informing students of that. I think that that will probably be a much more powerful intermediary to students than assuming that we can reach them through the SNAP agencies. But we will do both.

Mr. LAWSON. Okay, thank you very much. And one other thing, you stated that the economic fallout in the early days of the pandemic, I have inflation and housing costs—as it was stated earlier—continuing to rise and many Americans are still struggling to afford a nutritious meal for themselves and their families. So, my question would be, before the public health emergency ends, what can be done by Congress to help prepare states and better expand their capacity to meet the needs of their residents?

Ms. DEAN. Well, to be fair, I think states are very much focused on this. They are also concerned about the end of the public health

emergency and losing flexibilities, not just in SNAP but in other programs, as well as losing the additional eligibility rules and augmented benefits. They care about their residents just as much as we do. We have engaged in a very aggressive outreach and engagement effort, as have our colleagues at HHS through Medicaid, talking with state agency leaders about where are you today, where do you want to be, what disruption does the public health emergency end cause for you, and what do we do to work together, what flexibilities do you need from us, what peers do you need to talk to, to learn from their experience, and which of you are, for example, asking your legislatures for additional resources or supports. So, it is a very active conversation.

I actually just spoke with Secretary Harris to think about other states in other parts of the country that were good models for Florida as she was thinking about how best to set up operations to deal with these changes.

Mr. LAWSON. Okay. My time has about expired, but I would like to comment later on, if you get a chance if someone asks the question—how can we do something about the cost of the meals? I think it was discussed earlier in the conversation, and I don't know exactly what was really stated that we need to do, but with that, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you very much, Mr. Lawson.

And now the gentleman from the Northern Mariana Islands, Mr. Sablan, is recognized for 5 minutes.

Mr. SABLAN. Well, thank you. Thank you very much, Chairman Scott and Ranking Member Thompson, for holding this hearing. Good morning, Secretary Dean. Good morning, Ms. Long.

Madam Secretary, you mentioned in your testimony that FNS is, and I quote, "working towards parity for the people of the Commonwealth of the Northern Mariana Islands, Puerto Rico, and American Samoa." Could you expand on what you mean by *parity* and the steps the Department has taken and will take to ensure that it continues to work towards parity for the Northern Mariana Islands, Puerto Rico, and American Samoa? And I like the word *parity*.

Ms. DEAN. Good to see you, Congressman. I would be happy to do that. As you well know, I am probably one of the foremost champions on this issue. Those three Territories don't have access to household food assistance in SNAP. Instead, they are offered block grants. And so, although each one has a different potential pathway to having a more robust household food assistance program, in the case of the Northern Mariana Islands, the Secretary has an authority to expand household food assistance, and we have been able to work with the governor through your leadership to do just that, where it is the Northern Mariana Islands who was able to put forward a plan or proposal for household food assistance program that was more aligned with the level of support that is offered through SNAP, although not exactly the same, because that wasn't perfectly well-suited for them.

With American Samoa, we have been in similar conversations, although I would say unfortunately their block grant sets a statutory cap on the amount of assistance that we can provide that way.

And then, in Puerto Rico, where it would be a much bigger undertaking to shift to SNAP just because of the size and scale of the program, we are engaged in monthly conversations, ongoing workgroups to talk through the particulars of a shift so that if the Committee is prepared to consider that, that each of the Territories can come and talk about what SNAP would mean for them and their readiness to take it on.

Mr. SABLAN. Yes, thank you very much. Again, I know so many in my community have access to nutritious food because of the generosity of the American people, and I can never forget that. I am very grateful for that.

Now, Ms. Long, if I may, two farm bills ago Congress authorized funds for the development and installation of the EBT system for FNS, for SNAP here in the Northern Mariana Islands. That continues to be unavailable, and I am sometimes made to understand from the local—from the ground here, that the obstacle may be coming from region 9, from USDA, from FNS. Can you tell me why we still don't have EBT card in place in the Northern Mariana Islands? Including, one of my colleagues earlier said there was fraud, waste that people can fraud the system. I just can't imagine how you can fraud a system with paper coupons. So, any plans on getting EBT implemented in the Northern Mariana Islands, especially since it has been authorized and especially since funds have been available all these years?

Ms. DEAN. Well, Congressman, if I may, I will take the question.

Mr. SABLAN. Okay, all right, thank you. Thank you.

Ms. DEAN. We understand that this is something that the Northern Mariana Islands want to pursue. My understanding is that there has been difficulty in securing a vendor to provide a system, but we are happy to dig more into that and follow up with that.

[The information referred to is located on p. 819.]

Mr. SABLAN. Okay. Okay. Because, WIC was able to do this and get this program running, running very well. In fact, I know of one department store here that sells groceries, and I encourage them to get up and prepare for EBT someday, and they did, and it is working well to their delight.

But anyway, Ms. Dean, thank you. Madam Secretary, thank you for you, your staff, your colleagues, and your Department for everything you continue to do for us. It is not always very smooth and not always easy, but please know that it is always very much appreciated.

Mr. Chairman, thank you for the hearing, and I yield my time back.

The CHAIRMAN. Well, thank you, Mr. Sablan.

And we have reached the end of our hearing today. But before we adjourn, I certainly want to recognize the Ranking Member for his closing remarks, my closing remarks, and also we have a special guest with us. So, please, Ranking Member, you are recognized for your closing remarks.

Mr. THOMPSON. Thank you very much, Mr. Chairman. First of all, thank you to our USDA leaders out here for testifying, your leadership. I look forward to continuing to work with you. And I will make a few more comments on this section. I want to take the liberty of recognizing some folks here. First of all, I want to thank

the staff, both of our staffs for their work and due diligence as we prepare for the 2023 Farm Bill. I thought this was—these are the kind of hearings I look forward to. I think they are instructive, having folks from USDA that are responsible for implementing these various titles, so thank you, ladies, for your leadership and being here.

I want to recognize—I have got a—we have had the pleasure of working with a very special student intern that has been with us, and this is her final week and she is from Texas A&M, Tatum Hausman, and so thank you to her for her work. Best wishes to her and her continued education.

And then I brought another friend of mine with me, Seth Parish. And Seth is—stand up there, Seth.

The CHAIRMAN. Hey, there he is.

Mr. THOMPSON. Seth is a—

The CHAIRMAN. Why don't we give a hand for both of the—

Mr. THOMPSON. Seth is a—

Mrs. HAYES. I would have brought friends.

Mr. THOMPSON. Seth is a sixth grader from Maryland. He has been a friend of mine for many years. This is the fourth year he has shadowed me. He is part of an organization called Tuesday's Children where his dad served and sacrificed in the Army and sadly died about a month before Seth was born. But Seth has become a really close friend and I am really happy to have him here today. I just had him on the House floor where I bragged on him a little bit.

The CHAIRMAN. Way to go.

Mr. THOMPSON. Yes. So, in terms of this hearing, my thanks to the witness. Obviously, I laid out my initial principles in looking at the Nutrition Title. I really believe like true north on a compass where you lay your principles out first, and it helps you cut through sometimes some of the minutiae and also some of the controversy if we stay focused based on principles. And I have laid those out in my opening comments.

We obviously need to make certain that our intentions create good outcomes. We need to have executive action that is transparent. We need to work together to promote work, integrity, and great nutritional outcomes that I think we are all dedicated to, that I know we are all dedicated to. And I will follow up with some additional questions for the record.

So with that, thank you so much for your testimony today. And, Mr. Chairman, I yield back.

The CHAIRMAN. And thank you, Ranking Member, for your expert participation, as always. It is a pleasure working with you. And I want to thank the Members of the Committee. I certainly want to thank our distinguished Chairwoman of our Subcommittee for the great work that she is doing. Please give her a hand. Thank you.

And of course, I want to thank the Deputy Under Secretary, Ms. Dean, and our Administrator, Ms. Long, for taking the time to join us and presenting this extraordinary hearing. This is an important hearing to us.

And now, I would also like to recognize Ms. Jessica Shahin. Now, let me tell you about her, Ms. Shahin. She is here today, and I am

so delighted for your long service that you have given to us in this area. And as I look at you, I just want you to know there is no greater thing you could be doing than making sure that people receive food. We can do without a lot of things, but the one thing we cannot do without is food. And you have put in 18 years of incredible service. You started at the USDA in 2001 as the Associate Administrator for SNAP and have become an institution in the SNAP world. And we thank you for that. You are a blessing and have been a blessing to our nation. And please, won't you join me, everyone, in giving her a most deserving round of applause. Thank you so much for your service, we really appreciate it.

And now, as we continue to review the previous farm bill and look forward to the upcoming 2023 Farm Bill, I hope we will all keep in mind what we heard from USDA today. The farm bill is one of the most unique legislative packages in Congress. As was referenced, SNAP is close to 80 percent of our spending package with our farm bill. That shows you the importance of what we are doing with this Committee, and particularly with SNAP, with a long history of passing a bipartisan coalition of urban, suburban, and rural Members of Congress joining together for the collective purpose of supporting our nation's food system all the way from the farmer to the consumer.

SNAP is a vital piece of that puzzle, providing Americans in need with a hand up, not a handout. And there is no greater hand up we need than to make sure we are healthy, and you cannot be healthy without the proper food being put on the food tables of our families, regardless of their circumstance, but particularly for the lower-income and people who are struggling and, as we pointed out earlier, special groups like our veterans who are suffering today from hunger. And I just look forward to working as we have been with our Subcommittee Chairwoman on this bill to help our veterans.

And this is why, in the next farm bill, I will continue to be committed to protecting and preserving SNAP, to ensure that it will continue to serve as our nation's frontline anti-hunger program for many decades to come.

Again, thank you all for joining us today. And now we reach adjournment, and I must read these words. Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witness to any question posed by our Members.

And with that, this hearing is adjourned.

[Whereupon, at 1:08 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM GEORGIA; ON BEHALF OF BILL SWEENEY, SENIOR VICE PRESIDENT, GOVERNMENT AFFAIRS, AARP

May 3, 2022

Hon. DAVID SCOTT,
Chairman,
House Committee on Agriculture,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
House Committee on Agriculture,
Washington, D.C.

Dear Chairman Scott and Ranking Member Thompson:

AARP, on behalf of our 38 million members and all older Americans nationwide, appreciates the opportunity to submit a written statement for the hearing record of the April 28 House Committee on Agriculture hearing, “A 2022 Review of the Farm Bill: The Supplemental Nutrition Assistance Program”. SNAP serves as a lifeline for millions of people who are struggling to put food on the table, and nearly half of all SNAP households include at least one adult age 50 or older.^{1*}

SNAP is critical to the food security and health of millions of older Americans

SNAP is the nation’s largest nutrition assistance program. There are 8.7 million households with at least one adult age 50 or older participating in the program,² though many more are eligible. While the program provides a modest benefit—\$142 a month on average, or \$1.56 per meal—it helps older adults meet their basic food needs.³ The program reduces food insecurity⁴ and poverty and is linked to improved health outcomes. Growing evidence suggests SNAP is associated with fewer inpatient hospitalizations, emergency department visits, and long-term care admissions among older adults.^{5–7} This translates into substantial health care savings. A recent study found that SNAP enrollment was associated with lower Medicaid spending among older adults dually eligible for Medicare and Medicaid.⁸ Additionally, qualitative interviews found that increased SNAP benefits during the pandemic helped participants purchase healthier food and had a positive impact on their health.⁹ Access to an adequate and nutritious diet is foundational to maintaining health, quality of life, and independence as people age.

Older adult SNAP participation: Millions are eligible but not enrolled

Despite SNAP’s importance, seniors have historically had much lower participation rates in the program than other age groups. The U.S. Department of Agriculture reports that in fiscal year 2018, only 48 percent of adults ages 60 and older

¹Dean, O., Figueiredo, C. *Millions of Adults Ages 50 and Older Rely on the Supplemental Nutrition Assistance Program (SNAP)*, † AARP Public Policy Institute, Dec. 2021. <https://www.aarp.org/content/dam/aarp/ppi/2021/12/millions-of-adults-rely-on-snap.doi.10.26419-2Fppi.00106.002.pdf>.

***Editor’s note:** footnotes annotated with † are retained in Committee file.

²*Id.*

³Amount refers to the average SNAP household with adults ages 50 and older. AARP Public Policy Institute analysis of SNAP Quality Control data, 2019.

⁴Ratcliffe, C., McKernan, S. This study was conducted by The Urban Institute under a cooperative research contract with USDA’s Economic Research Service (ERS) Food and Nutrition Assistance Research Program (FANRP): contract number 59–5000–7–0113. April 2010. <https://www.ers.usda.gov/publications/pub-details/?pubid=84335#:-:text=The%20results%20suggest%20that%20receiving,of%20reducing%20food%2Drelated%20hardship.†>

⁵Szanton, S., Samuel, L., Cahill, R., Zielinskie, G., Wolff, J., Thorpe, R. Jr., Betley, C. *Food assistance is associated with decreased nursing home admissions for Maryland’s dually eligible older adults.* † BMC GERIATR. July 2017; 17(1): 162. doi: 10.1186/s12877–017–0553–x. PMID: 28738897; PMCID: PMC5525341.

⁶Samuel, L., Szanton, S., Cahill, R., Wolff, J., Ong, P., Zielinskie, G., Betley, C. *Does the Supplemental Nutrition Assistance Program Affect Hospital Utilization Among Older Adults? The Case of Maryland.* † POPUL. HEALTH MANAG. April 2018; 21(2): 88–95. doi: 10.1089/pop.2017.0055.

⁷Berkowitz, S., Palakshappa, D., Rigdon, J., et al.; *Supplemental Nutrition Assistance Program Participation and Health Care Use in Older Adults: A Cohort Study.* ANN. INTERN. MED. DEC. 2021; 174: 1674–1682.

⁸*Ibid.*

⁹Food Research & Action Center. *The Case for Making SNAP Benefits Adequate: Reflections From Interviews With Older Adults.* † Feb. 2022. <https://www.aarp.org/aarp-foundation/our-work/food-security/the-case-for-making-snap-benefits-adequate-reflections-from-interviews-with-older-adults/>.

participated in the program under Federal income and resource rules.¹⁰ While using Federal rules is useful for state comparisons, forthcoming AARP/Mathematica research estimates an even lower FY 2018 participation rate of 29 percent among this age group using state-specific broad-based categorical eligibility rules, which better reflect the actual percentage of those eligible for the program. Under state SNAP rules, we estimated that 16 million—or over 60 percent—of eligible adults ages 50 and older were not enrolled in the program in FY 2018. While many would have been eligible for the minimum benefit, over three million lived in households that could have been eligible for over \$200 a month.¹¹

Qualitative research has identified common reasons for nonparticipation, including the belief that the benefit would not be worth the effort, social isolation, a confusing application process, and barriers such as discomfort with technology.^{12–13} Administrative inefficiencies such as outdated enrollment systems, processing delays, and complicated recertification processes may also contribute to the under-enrollment of eligible seniors in SNAP.¹⁴ We look forward to working with Congress to address this challenge to make sure that older Americans can access the SNAP benefits for which they are eligible.

Food insecurity among older adults

Nearly 9.5 million Americans ages 50 and older experience food insecurity, meaning they have limited or uncertain access to adequate, nutritious food.¹⁵ Older adults may face life challenges as they age—such as experiencing a medical crisis, job loss, or the death of a spouse or other loved one—that may result in financial instability and make it difficult to afford food. SNAP is critical for older workers who lose their job. In economic downturns especially, older workers face longer durations of unemployment compared with younger job seekers. Rising food prices can mean the difference between putting a meal on the table and going without for someone living on a tight budget. When financially strained, seniors may be forced to choose between paying for food and paying for other necessities like rent, transportation, medication, and medical bills. Between an aging population and rising food prices, it is increasingly important to find ways to connect eligible older adults to SNAP.

Impact of COVID–19 on food insecurity among older Americans

In 2020, the COVID–19 pandemic led to widespread job loss that hit older workers particularly hard.¹⁶ Yet, food insecurity did not impact everyone equally. According to annual data from USDA, the overall share of older Americans experiencing food insecurity did not change significantly from 2019 to 2020,¹⁷ in part, likely due to short-term pandemic-related relief policies. However, between 2019 and 2020, food insecurity increased among older Black, American Indian/Alaska Native, Hispanic, and Asian adults, while it decreased slightly among older White adults.¹⁸ In 2020, nearly one in five Black and American Indian/Alaska Native adults ages 50 and older experienced food insecurity. Among this age group, 14.6 percent of His-

¹⁰ <https://fns-prod.azureedge.us/sites/default/files/resource-files/Trends2016-2019.pdf>.†

¹¹ AARP Public Policy Institute and Mathematica analysis using fiscal year 2018 Current Population Survey (CPS) and fiscal year 2018 SNAP Quality Control (QC) data.

¹² Levin, M., Paprocki, A., Mack, M., Grey, C. *Older Adult SNAP Access*.† Social Policy Research Associates, 2021. https://www.aarp.org/content/dam/aarp/aarp_foundation/pdf/2021/spr-older-adult-snap-access-report-fullreport.pdf.

¹³ Gabor, V., Williams, S., Bellamy, H., Hardison, B. *Seniors' Views of the Food Stamp Program and Ways To Improve Participation—Focus Group Findings in Washington State: Final Report*.† Health Systems Research, Inc., USDA Economic Research Service, June 2002. https://www.ers.usda.gov/webdocs/publications/43151/51497_efan02012.pdf?v=0.

¹⁴ Food Bank News. *SNAP Can Slash Healthcare Costs. But How To Boost Enrollment?*† Nov. 2021. <https://foodbanknews.org/snap-can-slash-healthcare-costs-but-how-to-boost-enrollment/>.

¹⁵ Dean, O., Figueiredo, C. *Over 9 Million Adults Ages 50 and Older Faced Food Insecurity in 2020*.† AARP Public Policy Institute, March 2022. <https://www.aarp.org/content/dam/aarp/ppi/2022/03/over-nine-million-adults-50-and-older-faced-food-insecurity.doi.10.26419-2Fppi.00162.001.pdf>.

¹⁶ Schramm, J., *Devastating Job Losses May Be Pushing Older Workers into Retirement*.† AARP Public Policy Institute, June 2020, <https://blog.aarp.org/thinking-policy/job-losses-may-be-pushing-older-workers-into-retirement>.

¹⁷ U.S. Department of Agriculture, *Household Food Security in the United States in 2020*,† Sept. 2021. <https://www.ers.usda.gov/webdocs/publications/102076/err-298.pdf?v=4757.2>.

¹⁸ Dean, O., *Pandemic Widens Food Insecurity Disparities Among Older Adults*.† AARP Public Policy Institute, Nov. 2021. <https://blog.aarp.org/thinking-policy/pandemic-widens-food-insecurity-disparities-among-older-adults>.

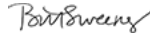
panic adults were food-insecure, compared with 5.6 and 5.2 percent of Asian and White adults ages 50 and older, respectively.¹⁹

Impact of food insecurity on health

Older adults who are food-insecure are at increased risk for many negative health outcomes. They are over twice as likely to report being in fair or poor health relative to their peers who are food-secure.²⁰ Compared to food-secure older adults, they are 78 percent more likely to have asthma, 74 percent more likely to be diabetic, 71 percent more likely to have congestive heart failure, 64 percent more likely to have experienced a heart attack, 20 percent more likely to report at least one Activities of Daily Living limitation, and almost three times more likely to experience depression.²¹ Food insecurity among this population also results in significant costs to the American public, particularly through increased expenditures on health care. Experts widely agree that nutrition is one of the most important factors influencing our health.²² Enrolling the millions of older Americans eligible but not enrolled in SNAP could result in billions of dollars in health care savings.²³

SNAP plays a critical role in reducing the likelihood of food insecurity and we must make sure that eligible older adults can get the food they need to nourish themselves when they fall on hard times. The reauthorization of the farm bill presents an opportunity to solve for the persistent participation challenges in SNAP. We appreciate the opportunity to provide our perspective and look forward to working with you throughout the reauthorization process. If you have any questions or need more information, please feel free to contact me or Nicole Burda on our Government Affairs team at [Redacted] or [Redacted].

Sincerely,



BILL SWEENEY,
Senior Vice President Government Affairs.

SUBMITTED ARTICLE BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA

WSJ | OPINION

[<https://www.wsj.com/articles/the-eternal-covid-emergency-health-and-human-services-xavier-becerra-government-welfare-11649968111>]

The Eternal [COVID] Emergency

Opinion ¹

Review & Outlook ²

By The Editorial Board ³

April 15, 2022 6:48 p.m. ET

Health and Human Services extends the crisis again so it can keep the extra welfare flowing.

¹⁹ Dean, O., Figueiredo, C., *Over 9 Million Adults Ages 50 and Older Faced Food Insecurity in 2020*, † AARP Public Policy Institute, March 2022. <https://www.aarp.org/content/dam/aarp/ppi/2022/03/over-nine-million-adults-50-and-older-faced-food-insecurity.doi.10.26419-2Fppi.00162.001.pdf>.

²⁰ Lee, J., Frongillo, E., *Nutritional and Health Consequences Are Associated with Food Insecurity among U.S. Elderly Persons*, † J. NUTR. May 2001, vol. 131 no. 5 1503–1509. <http://jn.nutrition.org/content/131/5/1503.long>.

²¹ Ziliak, J., Gundersen, C. *The Health Consequences of Senior Hunger in the United States: Evidence from the 1999–2016 NHANES*, † Aug. 2021. Report for Feeding America. <https://www.feedingamerica.org/research/seniorhunger-research>.

²² Trust for America's Health, *Prevention for a Health America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities*, † Feb. 2009. <https://www.tfah.org/wp-content/uploads/archive/reports/prevention08/Prevention08.pdf>.

²³ Zielinskie, G., Samuel, L., Szanton, S. *To Improve Health and Reduce Costs for Low-Income Seniors, Invest Upstream*, † HEALTH AFFAIRS, Oct. 2017. <https://www.healthaffairs.org/doi/10.1377/forefront.20171024.786928/>.

¹ <https://www.wsj.com/news/opinion?mod=breadcrumb>

² <https://www.wsj.com/news/types/review-outlook-u-s?mod=breadcrumb>.

³ <https://www.wsj.com/news/author/editorial-board>.



Secretary of Health and Human Services Xavier Becerra.
Photo: Ron Sachs—Pool Via CNP/Zuma Press.

The [COVID] emergency is over thanks mainly to vaccines and therapies. Yet Health and Human Services Secretary Xavier Becerra on Wednesday extended the national public-health emergency for another 90 days. Why? Because permanent crisis means more dependence on government.

The Trump Administration invoked the emergency under the Public Health Service Act on Jan. 31, 2020 to reduce red tape for healthcare providers. But then Congress linked an expansion of Medicaid and food stamps to the declaration. Now progressives don't want the emergency to end.

The Families First Coronavirus Response Act of March 2020 suspended food stamp work requirements for able-bodied adults without dependents during the emergency. These individuals normally can't receive benefits for more than 3 months over a 3 year period unless they work or participate in a work-training program. Congress also boosted benefits, so the average monthly payment is now double (\$240 per person) what it was in 2019.

Suspending work requirements was intended to help workers laid off during lockdowns when few jobs were available. But once lockdowns eased, businesses were desperate to hire. The sweetened food stamps and suspended work-requirement—on top of enhanced unemployment benefits and other transfer payments—reduced the incentive to return to work.

Now there are 1.8 job openings for every unemployed worker, and the unemployment rate has fallen to near pre-pandemic levels. Yet as of January there were nearly 2.5 million more households receiving food stamps than in 2019 and 500,000 more than in April 2020. What's wrong with this picture?

States may end the supplemental food stamps before the public-health emergency is lifted, but only a dozen or so have. Even GOP governors struggle to resist free Federal money, and they fret about being attacked for refusing extra benefits amid rising food costs, even if beneficiaries aren't poor.

Congress also increased Medicaid funding for states during the emergency on the condition they don't remove beneficiaries from their rolls, even if they earn too much to qualify. Medicaid enrollment has swelled by more than 14.6 million (20%) since February 2020—more than gained coverage from *ObamaCare*.⁴

A recent *Journal of the American Medical Association* study found that Wisconsin Medicaid enrollment increased 11.1% more than would be expected based on economic factors during the first 7 months of the emergency, mostly because ineligible beneficiaries weren't kicked off. Some states now want to prune their rolls but can't

⁴<https://www.macpac.gov/subtopic/medicaid-enrollment-changes-following-the-aca/>.

without losing Federal funds. Congress has hooked states on Federal transfer payments, and Democrats want them to stay hooked.

The emergency rules have served some useful purposes, such as letting Medicare cover telehealth services and waiving a Medicare requirement that beneficiaries be hospitalized for 3 days before the cost of nursing-home care is covered. But the Administration can make some of those useful changes permanent by regulation and ask Congress to include those it can't in the mooted [COVID] spending bill.

The same bill is also a chance to override Mr. Becerra's declaration of what is becoming an eternal [COVID] emergency. Pandemic welfare shouldn't become endemic.

Appeared in the April 16, 2022, print edition.

SUPPLEMENTARY MATERIAL SUBMITTED BY STACY DEAN, DEPUTY UNDER SECRETARY FOR FOOD, NUTRITION, AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE

Insert 1

Mr. MCGOVERN. . . .

. . . the USDA's Economic Research Service put out a report in March predicting an up to five percent increase in food prices this year. And that is astounding. It is simply not affordable for many American families. And while I was pleased to see that SNAP spending rose in 2020 in response to the sharp economic downturn, it has been relatively flat since the summer of 2021 and has started falling as temporary benefit increases that took place during the pandemic are phasing out. So, can you help us understand the important role that SNAP played during the pandemic, and, more importantly, can you give us a reality check about what it will mean for families' food costs if the benefit decreases again at the end of the public health emergency?

The CHAIRMAN. Would you answer that very quickly?

Ms. DEAN. I will do my best. Thank you, Mr. Chairman. Okay. So, SNAP—during the pandemic—did, first of all, increase when we saw a significant increase in need and newly unemployed folks qualifying for the program, so it was able to flex. Congress increased benefits by providing emergency allotments, which actually allowed benefits to go up by about, monthly, aggregate across the country about 40 percent, so it really helped to cushion folks through the dramatic difficulty in securing food during a difficult time. And that increase has also helped to cushion relative to the rising food inflation. And I think the President's request of USDA to ensure that we had a minimum emergency allotment, a \$95 per month per household amount helps to deflect the impact of rising food costs on SNAP participants. And of course, food hardship would be much, much higher had the program not been able to grow and expand with Congress' support. And I will stop there, sir.

The CHAIRMAN. Very fine. And you can also provide additional information to Jim in writing. Thank you.

USDA remains committed to ensuring SNAP households' access to a healthful, nutritious diet. Some states have already begun to transition away from issuance of Emergency Allotments (EA) as their state emergency declarations end. As of August 2022, 17 states have ended EA issuance. When the COVID-19 public health emergency ends, SNAP participants will see decreases in their benefits as a result of losing EA.

To mitigate any potential negative impacts from losing EA, USDA is providing enhanced technical support to state agencies to ensure that SNAP households receive all the benefits to which they are entitled. USDA is providing this support through a variety of means, including training webinars, policy clarifications and additional waiver opportunities. USDA welcomes any opportunity to work with Congress to support SNAP households during this transition.

Insert 2

Mr. SABLAN. . . .

. . . Can you tell me why we still don't have EBT card in place in the Northern Mariana Islands? Including, one of my colleagues earlier said there was fraud, waste that people can fraud the system. I just can't imagine how you can fraud a system with paper coupons. So, any plans on getting EBT implemented in the Northern Mariana Islands, especially since it has been authorized and especially since funds have been available all these years?

Ms. DEAN. Well, Congressman, if I may, I will take the question.

Mr. SABLAN. Okay, all right, thank you. Thank you.

Ms. DEAN. We understand that this is something that the Northern Mariana Islands want to pursue. My understanding is that there has been difficulty in securing a vendor to provide a system, but we are happy to dig more into that and follow up with that.

USDA recognizes the importance of implementing an Electronic Benefit Transfer (EBT) system for the Commonwealth of the Northern Mariana Islands' (CNMI) Nutrition Assistance Program (NAP). Implementing EBT in the CNMI only became more critical as participation increased, which required issuing coupon benefits in significant volumes. The implementation has presented some challenges, but the CNMI and USDA are committed to ensuring its completion.

Starting in March 2021 the CNMI worked to secure a project management contract to assist in developing a scope of work and procuring an EBT Processor to implement the EBT system. At present, the CNMI is close to concluding the contract for the EBT system. The total cost of the 7 year contract amounts to \$3,088,225, which has been approved to be covered by *American Rescue Plan Act* and block grant funds. The CNMI's EBT system is tentatively scheduled to roll out in June 2023.

Insert 3

Mr. THOMPSON. . . .

A follow-up, or another question, not a follow-up—but what role does the Department's Office of Chief Economist play in helping FNS make decisions related to policy and spending? I was made privy to a USDA Office of Information Affairs response to a FOIA request that states, quote, "The OCE relayed they were not asked to review any information related to the 2021 Thrifty Food Plan," end quote. And I think we can all agree that this update has a major economic impact obviously, and if this response is indeed true, can you tell me why the Office of Chief Economist would not be consulted? I can only wonder if there was concern OCE would disagree with your approach from an unbiased economic standpoint, especially when I perceive OCE as falling victim to calculated attempts at blocking economic analysis across a variety of policy issues. And if this response is not true, can you walk me through those consultations with the Office of Chief Economist?

* * * * *

Mr. THOMPSON. And that is fine, but, I mean, this decision tipped the Nutrition Title over \$1 trillion over 10 years. I would think that would warrant being elevated to consulting with the Office of Chief Economist for USDA. And if so, I mean, why within these internal communications that were discovered under FOIA, I mean, I just question why they were excluded. It seemed that something was missed in the process. I appreciate all the things that were done, but my question is what was not done given the significant impact of the changes to the Thrifty Food Plan.

Ms. LONG. Certainly. And, Congressman, we would be happy to get back to you on a more detailed description of the clearance process, because at this point we would need to double-check to see whether OCE did have the opportunity—

The clearance process undertaken for the *Thrifty Food Plan, 2021*,^{1*} published by USDA in August 2021 (FNS-916) followed the standard process set forth in the USDA Departmental Regulation on "Publication Review and Clearance Policy" (DR1410-001).² Specifically, in accordance with Section 5a(4)(e) of that Departmental Regulation, the FNS consultation process included economists from the Economic Research Service (ERS) and nutrition scientists from the Agricultural Research Service (ARS). The publication itself lays out the approach and methodology that was used to fulfill this Congressional mandate, mentions numerous internal and external stakeholders were consulted by FNS throughout the process, and describes ways in which FNS—specifically the Center for Nutrition Policy and Promotion (CNPP)—leveraged expertise and equities of other USDA agencies like ERS and ARS for this effort. The Office of the Chief Economist (OCE) did not provide specific input for this publication, in part because the support FNS received from economists at ERS was sufficient to fulfill the mandate from Congress. The partnership between FNS and ERS for this effort began several years ago, resulted in a

¹ <https://doi.org/10.52570/TFP2021>.†

Editor's note: footnotes annotated with † are retained in Committee file.

² <https://www.usda.gov/directives/dr-1410-001>.†

new method to determine food prices for updating the Thrifty Food Plan, and is documented in an ERS Technical Bulletin published in September 2020 and titled, *Estimating Prices for Foods in the National Health and Nutrition Examination Survey: The Purchase to Plate Price Tool*³ (TB-1955). Historically, OCE has not played a role in calculating or reviewing the Thrifty Food Plan during its development; however OCE was briefed on the 1999, 2006, and 2021 reports prior to their respective releases. As such, their engagement did not change relative to past updates. FNS is confident in the soundness of the approach and methodology—informed by USDA economists—that was used for this most recent reevaluation. The reevaluation was strengthened by interagency input and external partnership and followed all applicable Departmental regulations and guidelines.

Insert 4

Mr. CRAWFORD. . . .

Congress attempted to address the bottlenecks and slow onboarding processes by allocating \$25 million in the American Rescue Plan (Pub. L. 117-2) in part for retail technical assistance. My understanding is that none of this money has been distributed yet. What steps are being taken by FNS to help ensure that all retailers and consumers have access to this program?

Ms. LONG. Well, thank you for that question, Congressman, and we really appreciate the support for online purchasing. We are at a place where over 97 percent of SNAP households currently do have access to online purchasing options. But, as you know, there is certainly more to do, particularly with respect to smaller and specialty retailers, and we are very grateful for the support that came through the American Rescue Plan Act. And I am happy to report that next month, in May, we are going to be putting out our request for a contract to develop a technical assistance center which will be specifically designed to assist particularly, again, those smaller retailers and coming on board to the online platforms. And their goal will be really to provide the support that those retailers need to assess their technology needs and the business case to be able to successfully integrate into online purchasing in SNAP.

Mr. CRAWFORD. And so that money, you are saying, will start to flow next month?

Ms. LONG. We will be soliciting for the support for that technical assistance center, and we would be happy to get you more information on the anticipated schedule for the actual award and flowing of support.

On July 7, 2022, USDA issued a Request for Applications to solicit a nonprofit grantee to provide technical assistance to retailers interested in pursuing online SNAP. Award is expected in the early fall.

This grant will use \$5 million of the \$25 million from the *American Rescue Plan Act* and the period of performance will be four years.

The grantee will assist retailers in understanding the various paths to online SNAP, including determining costs and return-on-investment. The grantee will simplify, streamline, and translate existing guidance, and guide interested retailers through online implementation.

Eventually, the grantee will provide the same services to retailers operating in States selected to pilot mobile payments.

Insert 5

Mr. DESJARLAIS. Right. And I would argue right now that most people crossing the southern border have learned that. They don't come here and say—they don't cross into the United States and say, "We are just coming here because we felt like it." They are saying we are seeking asylum. They are taught what to say. They are charged up to \$4,000 per person to be brought by drug smugglers and cartels and people to get into the United States, and so they know what to say.

So, I guess what I would like to get from you is an actual number. We know what it costs for SNAP per year. We know how many Americans—well, I think we know how many Americans—you said 41 million, but we don't know how many of those are actual Americans. Does that number include the asylum-seekers and children of non-citizens?

Ms. DEAN. It would include eligible non-citizens, yes.

Mr. DESJARLAIS. Okay. So, I guess what we need to know is that, first of all, we are taking care of Americans first. We have programs to assist people whether they are in other countries in terms of hunger, and I think that is im-

³<https://www.ers.usda.gov/publications/pub-details/?pubid=99294>.†

portant. The U.S. should lead on that, and I am really proud of the SNAP program that we have in order to take care of the people who are hungry in the U.S. I just want to prepare—this line of questioning is to prepare the farm bill so we know what to expect and how to best take care of those in need. So, I thank you for your testimony, and any information you can get to me in writing on those numbers would be greatly appreciated, and I yield back.

Ms. DEAN. Happy to do that, sir.

The latest data available are from FY 2019. A total of 37.2 million individuals received SNAP on average each month in FY19.

The citizenship breakdown of these individuals is as follows:

- 33.9 million (91.1%) are U.S.-born citizens;
- 1.9 million (5.0%) are naturalized citizens;
- 295,000 (0.8%) are refugees, asylees, or individuals given a stay of deportation; and
- 1.1 million (3.1%) are other noncitizens—*e.g.*, a legal permanent resident with 40 quarters of work (which is typically 10 years of work history), military service, 5 years legal U.S. residency, disability, or under age 18.

Included in the above groups are 2.5 million citizen children that are living with noncitizen adults (adults may or may not be SNAP participants).

Insert 6

Mr. AUSTIN SCOTT of Georgia. Has the Biden Administration prosecuted a single case of that fraud? Have they prosecuted a single case of SNAP fraud?

Ms. DEAN. You mean in terms of the judiciary or through administrative—we can absolutely follow up with you but, yes, we have a rigorous approach to addressing fraud.

Mr. AUSTIN SCOTT of Georgia. I would appreciate information on how many cases have been brought for fraud.

Ms. DEAN. Okay.

Mr. AUSTIN SCOTT of Georgia. Thank you, ma'am.

The CHAIRMAN. And, Deputy Secretary, please follow up with Congressman Scott's inquiry in writing.

Ms. DEAN. Absolutely.

In Fiscal Year (FY) 2021, USDA identified 27,862 firms as potential compliance violators and conducted 11,273 investigations of authorized retail firms to determine compliance with program regulations. USDA may sanction or warn retailers found violating Program rules. Sanctions include permanent or time-limited term disqualifications and civil money penalties. Retailers who commit minor violations are issued official warning letters. Retailers who are disqualified permanently and later sell their stores are also subject to a transfer of ownership civil money penalty.

Sanctions	Total
Time-Limited Term Disqualification	1,155
Permanent Disqualifications	1,595
Hardship Civil Money Penalty (CMP)	345
Trafficking CMP	4
Total Sanction Actions	3,099
Other Compliance Actions	Total
Transfer of Ownership CMP	102
Official Warning	784
Involuntary Withdrawal (for other than non-redemption)	299
Permanent Involuntary Withdrawal	12
Fiscal Claim	162
Unauthorized Acceptance Fine	15
Total Compliance Actions	1,374
Total Sanctions + Compliance Actions	4,473

In the first half of FY 2022, more than 1,000 stores were sanctioned and over 700 were subject to compliance actions.

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Mr. ALLEN. Okay. Well, our Democratic colleagues are saying that this program is untouchable, but at any rate, I am just about out of time. One other thing that we need to get to the root of the problem on, and I don't understand this, but, we hear time and time again that one out of five children go to bed hungry in this country every night, and I don't know about the rest of the country, but in the 12th District of Georgia, during the pandemic, our children got breakfast, lunch, and a snack each day through our school nutrition programs. We made that happen. How is it possible that one in five children go to bed hungry at night, and why? Have you all investigated this problem?

Ms. DEAN. I don't have enough time to get back to given the time, but I am happy to follow up with you, sir.

Although, most households in the US are food secure (89.8 percent in 2021), some households experience food insecurity in that their access to adequate food is limited due to lack of money and other resources. USDA's nutrition assistance programs improve household food security by providing low-income households access to food for a healthful diet. USDA also monitors food insecurity among U.S. households annually through a nationally representative survey and publishes annual statistics on prevalence of food insecurity. The annual report presents prevalence and trends but does not examine causation.

Food security statistics for 2021 were published by USDA's Economic Research Service on September 7, 2022 (USDA ERS—*Household Food Security in the United States in 2021*⁴) and key findings for households with children are as follows:

- In 2021 the prevalence of food insecurity among all households with children decreased from 14.8 percent in 2020 to 12.5 percent.
- Children were food-insecure at times in 6.2 percent of households with children (2.3 million households). These households were unable at times to provide, adequate, nutritious food for their children. The prevalence decreased from 7.6 percent in 2020.
- Children and adults experienced very-low food security (severe form of food insecurity) in 0.7 percent of household with children (274,000 households). The rate in 2020 was 0.8 percent (322,000 households).

In 2020, the onset of the COVID-19 pandemic resulted in school and business closures and job losses which could have increased food insecurity considerably among resource constrained households. However, in response, USDA implemented additional nutrition assistance programs such as the Pandemic EBT program (P-EBT) as well as flexibilities within existing programs, some of these continued in 2021 (FNS Responds to COVID-19 *Food and Nutrition Service (usda.gov)*).⁵ Previous research has shown that participation in nutrition assistance programs can improve food security among children living in food insecure households. Summer Electronic Benefit Transfer for Children (Summer EBT) was found to reduce the prevalence of food insecurity among children by nearly 1/5. Participation in SNAP for around six months was associated with a 9 to 10 percentage point decrease in the prevalence of households with food insecure children.

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Mrs. LETLOW. . . .

Deputy Under Secretary Dean, the 2018 Farm Bill prioritized allocating GusNIP funding to retail locations. How has the USDA adequately provided retailers an opportunity to participate in this program?

Ms. DEAN. Congresswoman, I guess I will need to get back to you on that. GusNIP is operated through another arm of USDA, but I take your—I am concerned about your concerns, and so I want to make sure that we are responsive to—I would flag that the farm bill also included another provision which allows retailers themselves to offer incentives to SNAP participants, and that, too, we haven't seen a robust take-up of. And it is an area that I want to explore with my team. I feel that retailers across the country are participating with the pro-

⁴<https://www.ers.usda.gov/publications/pub-details/?pubid=104655>.†

⁵<https://www.fns.usda.gov/coronavirus>.

gram, they are supporting participants through their grocery stores, and we would love to see them be offering more incentives at their own direction.

* * * * *

Ms. LETLOW. Thank you. I would appreciate that information. And it is also my understanding that these incentives are only available at farmers' markets in Louisiana, yet farmers' markets represent less than one percent of all SNAP redemptions. My grocery retailers who serve SNAP populations are very eager to participate, but they don't even have that opportunity. Why is this, and what can we do to change it?

Ms. DEAN. Well, I can't speak to that particular issue, but funding for GusNIP is limited, so wherever it operates, it is smaller than we would like it to be, so that is of course something we are happy to talk with you further about.

USDA has diligently worked to provide retailers an opportunity to participate in the program. The *GusNIP Request for Applications (RFA)*⁶ is available through the USDA–NIFA Grants Funding Opportunity Page and through *Grants.gov*. Other outreach components for this grant include but are not limited to: GusNIP Webinars and GusNIP Listening Sessions.

All GusNIP Nutrition Incentive Program priorities are given equal consideration and include:

1. Maximize the share of funds used for direct incentives to participants;
2. Use direct-to-consumer sales marketing;
3. Demonstrate a track record of designing and implementing successful nutrition incentive programs that connect SNAP/NAP participants and agricultural producers;
4. Provide locally or regionally produced and fresh fruits and vegetables, especially those culturally appropriate for the target audience;
5. Include a project design that provides incentives when fruits or vegetables are purchased using SNAP/NAP benefits and in which the incentives earned may be used only to purchase fruits or vegetables;
6. Have demonstrated the ability to provide services to underserved communities; and/or communities where the majority of residents are racial/ethnic minorities, living below the Federal poverty line, and/or rural or remote communities;
7. *Include coordination with multiple stakeholders, such as general farm organizations, nutrition education programs, cooperative extension services, public health departments, health providers, private and public health insurance agencies, cooperative grocers, grocery associations, and community-based and non-governmental organizations;*
8. Offer supplemental services in high-need communities, including online ordering, transportation between home and store, and delivery services;
9. *Include food retailers (firms) that are open (1) for extended hours and (2) most or all days of the year;*
10. Test innovative or promising strategies within the limits of SNAP/NAP policy that would contribute to our understanding of how best to increase the purchase of fruits and vegetables by SNAP/NAP participants, to inform future efforts; and
11. *Involve a diversity of types of firms (e.g., convenience stores, supermarkets, farmers' markets).*

As part of our nutrition security work, the Department is making a concerted effort to inform retailers of the opportunity and process for providing incentives to SNAP participants. Such efforts go a long way to assist in making healthy foods, those that are aligned with the dietary guidelines for all Americans, more readily available and affordable for SNAP participants.

⁶ https://www.nifa.usda.gov/sites/default/files/2022-04/FY22-GusNIP-NIP-RFA-508_0.pdf.†

SUBMITTED QUESTIONS

Response from Stacy Dean, Deputy Under Secretary for Food, Nutrition, and Consumer Services, U.S. Department of Agriculture

Questions Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question 1. Under Secretary Dean: Can you please provide an update on the status of the implementation of the mobile technology demonstration project, including what USDA is doing to ensure that any approved demonstration projects are technologically secure and protect the privacy of SNAP recipients?

Answer. The *Agricultural Improvement Act of 2018* authorizes the use of mobile technologies for the purpose of accessing SNAP benefits for payment at the point-of-sale. This will allow SNAP participants to input their Electronic Benefit Transfer (EBT) card into a mobile device and make SNAP purchases at the point-of-sale without the presence of the physical EBT card. The Act requires that USDA approve not more than five projects to pilot the use of this technology and then determine if mobile technology should be authorized nationwide.

The Mobile Payment Pilot Request for Volunteers (RFV) was released on July 12, 2022. The deadline for submission of proposals to the RFV is October 4, 2022. State SNAP agencies are eligible entities.

The RFV requires respondents to address fraud concerns specific to mobile payment methods, and clearly explain how the pilot project plans to deter potentially fraudulent activity. Respondents must ensure that state participants have adequate methods in place to ensure system and data security, as well as customer privacy, to prevent compromise of SNAP household information, identity theft, and other fraud. Proposals will be carefully evaluated for strong data security systems and policies, and the use of industry-recommended practices.

Question 2. Under Secretary Dean: I have heard concerns from grocers in my district that releasing SNAP benefits on the first of the month, every month, not only causes problems for stocking common items but also contributes to stigma of SNAP participants who are often working, caring for family, and generally living lives wholly inconsistent with stereotypes associated with their benefit. Do you believe it would be feasible to distribute benefits in a different way—throughout the month, or on a rolling basis in some other sense? Has the Department deliberated this possibility at any time?

Answer. SNAP state agencies are responsible for general SNAP program administration at the local level, including the issuance of SNAP benefits to eligible households. USDA encourages SNAP state agencies to stagger their benefit issuance over multiple days throughout the month, as a staggered issuance schedule more evenly distributes demand on SNAP authorized retailers and may reduce stigma clients face. Most states issue benefits on a staggered schedule that can, for example, range from 10 business days to as many as 28 calendar days over the issuance month.

Six states and one U.S. Territory issue all benefits on one day of the month. Within that subset, only four states and one U.S. Territory issue benefits on the first day of the month.

Question Submitted by Hon. Al Lawson, Jr., a Representative in Congress from Florida

Question. The recent SNAP increase drastically helped to close the gap between SNAP benefits and meal costs, however, for four of my eight counties these benefits are still below the average cost of a meal in that county.

Since a review of the Thrifty Food Plan is not expected for another 5 years, what else could be done by Congress to address this gap and ensure that all Americans have access to healthy and delicious food?

Answer. The most recent reevaluation of the Thrifty Food Plan (TFP) increased the purchasing power of SNAP households by utilizing a modernized, data driven approach, reflecting notable shifts in the food marketplace and consumers' circumstances. This reevaluation included current food prices, foods Americans typically eat, nutritional values and the latest dietary guidance.

In addition to reevaluating the TFP every five years, USDA issues annual SNAP Cost-of-Living-Adjustments (COLA) to address increased consumer costs. COLA adjusts the SNAP maximum allotments, minimum allotment, income eligibility standards, and deductions. Beginning October 1, 2022, maximum allotments will increase for the 48 states and the District of Columbia, Hawaii, Guam, the U.S. Virgin Islands, and Alaska. For a family of four receiving a maximum allotment in the 48 states and the District of Columbia, benefits will be \$939. Maximum allotments for a family of four will increase to \$1,794 in Hawaii, \$1,385 in Guam, \$1,208 in the

U.S. Virgin Islands, and to a range of \$1,172 to \$1,819 in Alaska. The minimum benefit for the 48 states and the District of Columbia will increase to \$23 and will also increase in Alaska, Guam, Hawaii, and the U.S. Virgin Islands.

In addition to the annual COLA adjustment, during the pandemic Congress passed legislation which temporarily increased SNAP benefits for households. Many of the flexibilities, such as emergency allotments which provided SNAP households with the maximum allotment, were instrumental in ensuring SNAP households had access to healthy and delicious food. USDA stands ready to work with our partners in Congress to help all Americans have access to healthy and affordable food.

Question Submitted by Hon. Jimmy Panetta, a Representative in Congress from California

Question. Deputy Undersecretary Dean and Administrator Long, thank you so much for your recent testimony to the House Agriculture Committee about the importance of the Supplemental Nutrition Assistance Program (SNAP) in the 2023 Farm Bill.

I appreciate your comments regarding building on the proven success of flexibilities during COVID-19, including to streamline methods for accommodating telephonic signatures—this has provided critical program access here in California. I look forward to seeing the guidance and other assistance you provide states on the overall approach to continue proven practices to improve operations and streamline access for families in need as permanent solutions to strengthen SNAP.

I would like to expand that topic to the importance of telephonic and online remote options to for applications and interviews during Disaster SNAP operations.

I appreciate that FNS has temporarily allowed remote interview options during pandemic given the larger flexibility, providing crucial program access in Santa Cruz County¹ in the summer of 2020 during the height of COVID & following the CZU Complex Fires.²

Prior to the pandemic, however, FNS has required the interview to be in person. This has been problematic for several reasons, including: retraumatizing applicants who have been through a major crisis to have to present in person while they are managing multiple other disaster benefits during the limited D-SNAP application window; the significant transportation, distance, fuel expenses, and other barriers applicants who have had to relocate but are eligible for aid; the inequitable impact all of this has for the civil rights of people with disabilities and other outstanding barriers to accessing D-SNAP.

The California Association of Food Banks that represents the three food banks serving my District, along with the Western Center on Law & Poverty, have documented the impact that the lack of remote interview options has had, and called for permanent remote access to D-SNAP,³ since 2015.

How can FNS support states to permanently provide remote (telephone and online) options for the application and interview during Disaster SNAP to ensure equitable access to food assistance when communities need it most?

Answer. Traditionally, state agencies operate Disaster Supplemental Nutrition Assistance Programs (D-SNAPs) via an in-person application and interview process. Since the onset of the COVID-19 pandemic, USDA has approved D-SNAPs with virtual components to support states in protecting the health and safety of households and staff while responding to disasters.

Since March 2020, USDA has approved 23 D-SNAP operations with novel virtual components. Virtual operations were critical to states as they dealt with challenges due to the COVID-19 pandemic and USDA is committed to continuing to approve virtual D-SNAPs through the end of COVID-19 Public Health Emergency.

In many states, the use of virtual components in D-SNAP has improved efficiency and program access but has not been without its challenges. USDA believes that states may mitigate these access challenges by utilizing technology for pre-registration systems, call centers, and ensuring they have the capacity to mail the electronic benefit transfer (EBT) cards overnight.

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. Based on recent Department data, it appears some states are seeing declines in program enrollment while others see growth. Deputy Under Secretary

¹ <https://www.fns.usda.gov/disaster/california-disaster-nutrition-assistance>. [Attachment 1].

² <https://www.fema.gov/disaster/5336>. [Attachment 2].

³ https://wclp.org/wp-content/uploads/2016/07/071116_WCLP_CAFB_DisasterSNAPComments_Final.pdf, https://wclp.org/wp-content/uploads/2020/09/WCLP_DSNAPE_Comments_Sept14_2020.pdf. [Attachments 3a & 3b].

Dean, what do you attribute these variations in enrollment trends to? Do you think it's a matter of policy choices? Operations? Something else?

Answer. As a result of the COVID-19 Public Health Emergency, SNAP saw a rapid growth in participation across the country. As the nation continues to recover from the pandemic, shifts in participation trends are expected as state economic conditions vary.

A growing number of states have begun to end state emergency declarations and transition off program flexibilities available under such declarations.

USDA remains committed to assisting states with administering SNAP and ensuring program integrity throughout the pandemic and as we continue to transition through recovery to ensure access among eligible populations.

Question 2. Deputy Under Secretary Dean, I am increasingly concerned SNAP promotes a perverse business of poverty. Organizations across the country have come to expect ongoing, or even increased reliance on safety net programs to remain solvent, particularly through the receipt of Federal dollars. How do we engage non-traditional partners in the delivery of services? How can we weed out those who are not conducting the work in the vein of what the American taxpayer expects?

Answer. SNAP is the most far-reaching, powerful tool available to ensure that all Americans can afford healthy food—it is a lifeline for tens of millions of Americans in every part of the country. It reduces poverty and food hardship, and participation by young children has been linked to better long-term health, education, and employment outcomes. SNAP also helps to stabilize the economy and respond to increased need during downturns. Every additional \$1 in SNAP benefits can create at least \$1.50 in economic activity. USDA is continuously working to improve the effectiveness and efficiency of nutrition assistance programs.

As part of this ongoing work, the Administration is strengthening communication with longstanding partners and engaging new partners, including non-traditional partners, for ideas on how to better implement the Federal nutrition programs and deliver services. In this regard, we continue formal consultations with Tribes and our regular dialogue with state agencies that administer our programs.

The Secretary has also engaged directly with local school officials, including school food service personnel, to ensure we have robust dialogue and direct stakeholder input as we work together to enhance policy around and support for school meals.

We are expanding our lines of communication with non-profits, academic leaders, faith-based organizations, and industry and private-sector partners across multiple fronts. As an example, we are launching a series of summits on nutrition security and the connection to both individual and public health with stakeholders in the healthcare sector. After a recent national kickoff summit, FNS is partnering with the private-sector for a series of regional summits across the nation on this important topic in 2023. We have also engaged partners in the efforts to innovate and modernize the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

WIC is one of the nation's most successful and cost-effective nutrition intervention programs, as proven by the results of studies conducted by USDA and other non-government entities. Since its beginning in 1974, the WIC Program has earned the reputation of being one of the most successful federally funded nutrition programs in the United States. Collective findings of studies, reviews, and reports demonstrate that the WIC Program is cost effective in protecting or improving the health and nutritional status of low-income women, infants, and children.

Additionally, USDA's school meals programs provide critical nutrition to tens of millions of children every school day. For many children, the food they receive from school breakfast and lunch makes up about half their dietary intake each school day. Students' success in the classroom is connected to their ability to access healthy and nutritious meals, and a 2021 study published in the *Journal of the American Medical Association* found that school meals are the healthiest meal kids receive each day. Research also shows children who ate lunches from school were more likely to consume milk, fruits, and vegetables and less likely to consume desserts, snack items, and non-milk beverages than children who brought food from home. Strong school nutrition programs are proven to work for schools and families.

We strive to seek out and leverage opportunities to enhance input and dialog, especially with non-traditional partners. We welcome input from you, Ranking Member Thompson, and other members of the Committee as we strive to make connections with stakeholders, engage those with "lived experiences" for their rich perspectives, and advance USDA's diversity, equity, inclusion, and accessibility goals with respect to the Federal nutrition programs.

Question 3. On April 21, the Supreme Court turned down a bid to allow Puerto Rico residents to claim benefits under the Federal Government's main disability in-

insurance program, ruling the Constitution does not require Congress to offer such payments to residents of the island, largely because residents are exempt from most U.S. taxes. The Biden Administration defended the law excluding Puerto Rico, but acknowledged it favors legislation to address the issue. Deputy Under Secretary Dean, your testimony stated the agency is exploring parity for residents of Puerto Rico; is this something the agency thinks you have authority to do? Or will legislation be required? Are their proposals out there that FNS supports?

Answer. Legislation is required to move from the Puerto Rico Nutrition Assistance Program (NAP) block grant to the Supplemental Nutrition Assistance Program (SNAP). USDA supports giving the Government of Puerto Rico the choice to pursue transitioning from NAP to SNAP.

USDA is providing ongoing, robust technical assistance to the Government of Puerto Rico as they consider this possibility and what it means for their current program and residents. This assistance includes facilitating visits to SNAP state agencies, creating working groups, and providing technical assistance on their annual plan of operation to better align the program with SNAP within the authority of the block grant.

USDA is committed to continuing to work with our partners in Puerto Rico and in Congress on a path forward that best meets the nutrition needs of the residents of Puerto Rico. Specifically, our ongoing work with the Government of Puerto Rico is helping ensure they have a robust and accurate understanding of SNAP, including all program requirements. This partnership is also equipping them with information they need to engage with the Committee in discussions about legislation related to the future of nutrition assistance in Puerto Rico.

Question 4. In March 2022, FNS rescinded charge letters and Final Agency Decisions related to indirect trafficking. Deputy Under Secretary Dean, can you walk the Committee through the following: What led to FNS charging these (potentially hundreds) of retailers with indirect trafficking?

Answer. Starting in 2018, the Department expanded its efforts to investigate SNAP trafficking to provide stronger monitoring and enforcement against those seeking to undermine the program. This included pursuing more cases of indirect trafficking, or the illegal act of a retailer intentionally purchasing products that were originally bought with SNAP benefits.

Question 4a. If the investigators were contractors, what is the process by which these contractors are retained?

Answer. The investigators are on contract with the Department. The contract is solicited using standard contracting practices.

Question 4b. How many total retailers had their permanent disqualification reversed by the March 2022 decision?

Answer. Out of an abundance of caution, USDA rescinded all actions taken against retailers whose indirect trafficking investigations may have been adversely impacted by process weaknesses, including reinstating those that were disqualified. USDA did this because of a deep commitment to maintaining fairness and program integrity in SNAP and will continue to pursue ways to leverage the best tools available to safeguard all our programs. There are nearly 250,000 SNAP-authorized retailers. In total, less than 1,000 retailers had permanent disqualification actions rescinded.

Question 4c. Is the notification process complete? If not, how many notifications remain and when do you expect the process to be finalized?

Answer. Yes, the notification process was completed in April 2022.

Question 4d. Has the agency found wrongdoing by the investigators? If so, has disciplinary action occurred? If so, in what form and how many investigators have been impacted by such?

Answer. When concerns were brought to the Department's attention about specific aspects of how those indirect trafficking investigations were executed, a sample of the administrative (not criminal) indirect trafficking cases conducted between 2018 and 2021 were reviewed. Some weaknesses in the process were identified.

While we cannot discuss investigative techniques in detail, we take very seriously the enforcement power that we wield. USDA has taken immediate actions to address those weaknesses, including providing extensive training to investigative and compliance staff.

Question 4e. I have heard many of these retailers have lost thousands of dollars in revenues as a result of these original agency decisions, and some have had to close their doors entirely. What, if anything, is the agency doing to rectify that? Will the agency commence some type of claims process?

Answer. Impacted retailers that were still under investigation or awaiting appeal had the administrative cases against them rescinded. Those who were disqualified while awaiting administrative appeal were automatically reinstated. Retailers who were already disqualified for indirect trafficking had their Final Agency Decisions (FADs) rescinded and were reinstated. The administrative decision that was rescinded for these retailers will not be held against them for purposes of future authorization decisions. Monetary penalties paid by sanctioned retailers were refunded.

Retailers who are no longer in business will be able to return to SNAP as authorized retailers should they so choose. Their application will be accepted without prejudice, meaning USDA will not hold the rescinded actions against them. They will be subject to the same monitoring and oversight as all SNAP authorized retailers.

Question 4f. The Department makes equity in services a priority; how many of these retailers are minority-owned? Additionally, please provide the full demographic (*i.e.*, race, age, gender) breakdown of these retailers.

Answer. USDA does not collect the racial or ethnic make-up of retailers who participate in SNAP.

Question 5. Deputy Under Secretary Dean, as you know, many businesses and schools were shuttered during 2020 and 2021. Please explain how Federal E&T disbursements were used by states during that time.

Answer. USDA responded immediately to the COVID-19 public health emergency (PHE) by issuing an April 2020 memorandum clarifying that SNAP E&T service providers could offer virtual services to better meet SNAP E&T participant's needs during this unprecedented time.

Although many of the organizations that normally offer E&T services were forced to close their doors to in-person activities, many states and E&T providers quickly shifted to offering virtual services.

As a result, Federal E&T funds continued to be used during the pandemic for regular administrative costs of operating an E&T program, offering SNAP E&T components and case management, and providing participant reimbursements.

As always, states were required to submit amendments to their state SNAP E&T plans if they anticipated any major changes to their SNAP E&T program or operating budget.

Question 6. The 2018 Farm Bill asked FNS to implement the successful Obama-era National Accuracy Clearinghouse (NAC) demonstration pilot nationwide. Subsequent appropriations bills directed the agency to ensure the NAC provides for a robust appeals process for SNAP recipients identified as receiving SNAP benefits in more than one state before removing them from the program in either state. Deputy Under Secretary Dean, what has FNS done to ensure there are new minimum appeals processes in light of the Department's reports to Congress that nationwide implementation of the NAC is imminent? Can you point me to the regulation or guidance?

Answer. The National Accuracy Clearinghouse (NAC) interim final rule—which was published in the *Federal Register* on October 3, 2022, with a corrected effective date of December 6, 2022 (87 *FR* 59633)⁴—as well as the SNAP regulations, seek to improve the customer service experience for SNAP applicants and participants by ensuring that they receive the benefits they are entitled to, while maintaining program integrity through the prevention of duplicate participation.

USDA's development of the NAC interim final rule and the NAC system have been informed by recommendations from the independent evaluation of the NAC pilot. This evaluation found that more successful states integrated the NAC with their SNAP eligibility systems and into existing workflows. As a result, the NAC interim final rule inserts the NAC requirements into current regulations to prevent the disruption of existing workflows while still enhancing customer service and program integrity by preventing duplicate participation.

State agencies that use match information from the NAC must comply with the requirements set forth in 5 U.S.C. § 552a(p) and 7 CFR § 272.12(c). According to these requirements, state agencies may not take any adverse action to terminate, deny, suspend, or reduce benefits to an applicant or SNAP participant based on information produced by the NAC until the state agency has independently verified the information and informed the applicant or SNAP participant of agency findings, the opportunity to contest findings, and the allowable timeframe to do so. In addition, under requirements in 7 CFR § 273.15, SNAP households or individuals may request a fair hearing to contest any action of the state agency which affects their

⁴<https://www.federalregister.gov/documents/2022/10/03/2022-21011/supplemental-nutrition-assistance-program-requirement-for-interstate-data-matching-to-prevent>.[†]

participation in the program. If a household wishes to appeal a local fair hearing decision, they can request an appeal within 15 days of the mailing date of the hearing decision notice.

If the state agency suspects that a household or individual is intentionally participating in SNAP in more than one state, based on data obtained through a NAC match or other means, the state agency investigates the alleged intentional program violation. The state agency is required to act on households or individuals with intentional program violations through administrative disqualification hearings or court referrals. However, while these actions are pending, affected households or individuals are allowed to participate in the program, per regulations at 7 CFR § 273.16.

Question 7. The Department had announced a suite of investments in program administration and integrity, which amounted to less than $\frac{1}{10}$ of 1 percent of the annual SNAP appropriation. Upon adding roughly \$20 billion more in payments per year by way of the Thrifty Food Plan update, this investment appears to have dropped to less than $\frac{1}{20}$ of 1 percent. Deputy Under Secretary Dean, beyond the announcements, what is the agency doing to ensure those investments are worthwhile? Do you anticipate further investments in the integrity and administration space?

Answer. Integrity and payment accuracy are ongoing priorities for the USDA. SNAP state agencies are responsible for identifying and holding SNAP recipients who break the rules accountable. USDA has numerous initiatives and resources focused on strengthening the integrity of SNAP and improving payment accuracy. To support states in these efforts, USDA provides policy guidance, regulations, and technical assistance to enhance states' ability to prevent, detect, and investigate recipient fraud. Accurate payments mean better customer service for SNAP clients, and USDA is committed to maintaining program integrity as stewards of taxpayer dollars. Following are a few specific examples of the projects USDA is working on in this area, and the standard statutory and regulatory tools that USDA regularly employs.

Income Verification Pilot Program—In Fiscal Year 2022, USDA awarded grants to 16 states to evaluate their use of third-party databases to verify earned income. Preliminary results suggest this project may have a positive impact on payment accuracy. USDA is using the information from grantees to pursue a national-level contract for all states for earned income verification.

Understanding Risk Assessment in SNAP Payment Accuracy and Employing Model Programs to States—USDA is studying how state SNAP agencies use analytic risk assessment tools and what makes these tools effective. At the same time, USDA is developing its own risk assessment model that can easily be deployed to any state and aims to identify characteristics of cases that are prone to payment errors so that state SNAP eligibility staff can provide extra layers of review during the certification process to ensure households receive only the benefits to which they are entitled. This model contains safeguards to ensure the protection of protected classes.

SNAP Fraud Framework—The SNAP Fraud Framework (SFF) serves as a cornerstone of recipient integrity efforts, and USDA seeks to enhance the SFF as new technology and best practices emerge. USDA designed the SFF and its supporting documents to support states as they develop new efforts or improve existing ones to prevent, detect, and investigate fraud. In 2019, USDA established the SNAP Fraud Framework Implementation Grant program. These grants aim to improve state agencies' recipient fraud prevention, detection, and investigation efforts, using principles from the SFF. Since 2019, USDA has funded 29 awards totaling over \$15 million under this grant program.

Proposed Rulemaking for Strengthening Integrity and Reducing Retailer Fraud in the Supplemental Nutrition Assistance Program—USDA is working to issue a proposed rulemaking to strengthen the integrity of SNAP's payment accuracy measurement system. These proposed changes address longstanding concerns by USDA, OIG, and state partners and is planned for publication in July 2024 for notice and comment.

Investments in IT Resources to Improve Improper Payment Measurement and Analysis—USDA is developing a new information technology system that will provide a suite of tools and process efficiencies for state and Federal reviewers conducting improper payment reviews. This system will also provide better data analysis tools, allowing administrators at all levels of the Program to make more informed decisions about how to ensure the integrity of SNAP. Additionally, USDA is adding additional data analytic tools that will go beyond the improper payment data to integrate multiple data sources, allowing for a more nuanced examination of what is causing payment errors and how they may be fixed.

Statutory and Regulatory Ongoing Compliance Activities—USDA continues to conduct management evaluations on state recipient integrity and payment accuracy activities to ensure states are following the law and regulations, and implementing the most effective strategies to administer and oversee integrity responsibilities. For states that are found to have deficiencies, USDA works to establish corrective actions with the state to improve program performance and payment accuracy.

Question 8. States are exploring innovative ways to streamline eligibility determinations. Mobile sites and mobile applications offer the ability to upload verification documents, greatly reducing a common source of churn—where households apply but do not complete their applications, and subsequently reapply, creating administrative burden and higher costs—by capturing verification quickly and easily. These and other technology initiatives, combined with data-driven business process improvements, can enhance administrative efficiency, and reduce both state and Federal expenditures. There are companies currently providing asset verification to a host of other safety net programs, yet they have struggled to enter the SNAP space. Deputy Under Secretary Dean, I welcome your thoughts on exploring verification services that provide responses in minutes. Are state budgets and policies the burden here? Is it an agency decision? Or, can it be surmised there is just no interest in any asset tests?

Answer. USDA supports states' efforts to modernize their applications, eligibility systems, usage of data matching and processes, and other program operations in various ways, for example by providing ongoing technical assistance and through annual Process and Technology Improvement Grants.

USDA is also focused on the potential advantages to using third-party, commercial payroll databases to meet the statutory requirement to verify applicants' earned income. This form of data matching has the potential to help states verify earned income amounts and/or confirm the lack of earned income faster and more effectively than traditional methods, which entail relying on households to provide documentation (*e.g.*, paystubs) or in some cases require state eligibility workers to contact employers directly (*e.g.*, by calling the employer).

Approximately 75 percent of states have entered contracts with commercial vendors to obtain data matching services that allow them to verify a significant portion of SNAP applicants earned income upon a single query, in real-time. The cost of these contracts varies widely, and the majority of states are forced to ration usage due to cost concerns. Other states have discontinued their contracts due to cost concerns and negotiation challenges.

In FY22, USDA awarded grants to 16 states to evaluate their use of third-party databases to verify earned income. Preliminary results suggest this project may have a positive impact on payment accuracy. USDA is using the information from grantees to pursue a national-level contract for all states for earned income verification.

Question 9. As mandated in the Consolidated Appropriations Act, 2021 (CAA, 2021), the National Academy of Sciences, Engineering, and Medicine (NASEM) was to complete a review of the 2020 edition of the *Dietary Guidelines for Americans* that among other things, would conduct comparative analyses of methodologies, protocols, and evaluation processes. This report is long overdue, however the Department of Health and Human Services and the Department of Agriculture have seemingly ignored this mandate, instead moving ahead with the proposal of scientific questions and a call for public comment on them. Deputy Under Secretary Dean, when can we expect the release of the NASEM report, and will you commit to ample notice and briefings on it? Additionally, is it not premature to move forward with the 2025–2030 iteration, knowing the relevant Congressional committees, the scientific community, and the general public have not been privy to the comprehensive analyses as required in CAA, 2021? Do you think the public, including the scientific community, should have the opportunity to comment on the NASEM report once released? Especially before an expectation to engage on the 2025–2030 edition?

Answer. It is our understanding that NASEM provided Congress with the study's midcourse report on May 18. NASEM requested an extension to complete the study, and the committee now expects to submit its final report by the end of this calendar year. NASEM has told us it is their standard practice to offer Congress a briefing on its study committee's work. USDA and HHS are also happy to brief Congress on the midcourse report released publicly on May 19, and on the final report once we receive it ourselves.

While the *DGA* is published every 5 years, the work to develop each new edition is a multiyear process. In order to ensure we release the next edition of the *DGA* on time, as mandated by Congress, we had to begin work when we did, particularly

to ensure we have enough time to give the public ample opportunities to weigh in and participate throughout.

The purpose of the NASEM study currently underway is to assess the process for developing the *2020–2025 Guidelines* in light of the 2017 NASEM study recommendations. While the current NASEM study will not include recommendations on the process to develop the *Dietary Guidelines for Americans*, continuous quality advancement is critical to our work, and we'll continue to work towards integrating the recommendations from the 2017 NASEM study into our process as we move forward.

We appreciate their ongoing work on this analysis, described in the midcourse report, and look forward to the final report once published. This is one of many tools we will use to help support our continuous process improvement and promote science-based decision making across all that we do. USDA and HHS are fully committed to a scientific and transparent process for developing the *Dietary Guidelines for Americans*. As we look ahead to the next edition, we have already taken steps to implement the NASEM recommendations, including enhancing transparency and supporting state-of-the-art processes and methods.

Question 10. On May 05, 2022, the Department announced it will interpret the prohibition on discrimination based on sex found in Title IX of the Education Amendments of 1972, and in the Food and Nutrition Act of 2008, as amended, Supplemental Nutrition Assistance Program (SNAP), (7 U.S.C. § 2011 *et seq.*), to include discrimination based on sexual orientation and gender identity. As a result, state and local agencies, program operators and sponsors that receive funds from FNS must investigate allegations of discrimination based on gender identity or sexual orientation. Those organizations must also update their non-discrimination policies and signage to include prohibitions against discrimination based on gender identity and sexual orientation. Deputy Under Secretary Dean, this is concerning because like you, I feel that access to programs should come without fear of discrimination. Looking at the last 10 years, how many complaints have been filed regarding SNAP discrimination based on sexual orientation or gender identity? Please walk me through each, as well as the process by which the Department addressed and/or resolved the complaint(s). Is the Department providing additional training to ensure partners understand their responsibilities?

Answer. Each of the FNS programs also has enabling regulations that include certain civil rights components. The SNAP regulations at 7 CFR 272.6 describe procedures for SNAP complaint handling, and specifically authorize state SNAP agencies with an approved complaint processing procedure to opt to directly process program civil rights complaints. States must process discrimination complaints based on sexual orientation and gender identity just as they would process discrimination complaints based on sex.

Generally, state agencies must “timely” forward all complaints of prohibited discrimination to FNS, unless they have an approved complaint processing procedure in place. In addition, state agencies must maintain records of complaints and submit records to FNS. State agencies with approved complaint processing plans must follow those plans in handling complaints, including submitting decisions to FNS for review before they are issued, and ensuring decisions include appeal rights to USDA’s Office of the Assistant Secretary for Civil Rights.

Prior to 2016, FNS complaint databases were unable to track complaints of discrimination in SNAP programs that raised issues based on gender identity or sexual orientation separately from other sex discrimination complaints. Beginning in 2016, FNS Civil Rights tracked complaints based on gender identity or sexual orientation manually. Between February 2016, and August 2022, FNS received 36 complaints of discrimination in the SNAP program based on sexual orientation or gender identity.

FNS contacted all 36 complainants. In 33 of those cases, FNS received no response from the complainant. In the remaining three cases, FNS closed one case because the complainant filed in court on substantially the same issues, received one request to withdraw the complaint, and issued one final agency decision finding no discrimination.

Question 11. Deputy Under Secretary Dean, for any states approved for Pandemic EBT benefits in February, March and/or April 2022, can you please outline the average amount provided to families via P–EBT benefits? Also, given that most schools have reopened, what is the purpose of continued issuances?

Answer. USDA approved 14 state P–EBT plans for school children in the months of February, March, and April 2022. These states estimated that 4.5 million children would receive P–EBT benefits totaling \$1.94 billion under their plans over the course of School Year 2021–2022. On average, beneficiaries under these plans would

receive a state-estimated \$430 for the school year. Note, though, that many children would receive no benefits under these plans since they did not miss school days due to the pandemic. Averaged across the total number of children eligible for free or reduced-price school meals, children in these states would receive an average of \$190 over the course of the school year.

USDA approved five P-EBT child care plans in the months of February, March, and April 2022. These states estimated that they would issue a total of \$196.5 million to 532,000 SNAP-enrolled children in child care over the course of the school year. On average, this is \$370 per child.

Although most schools have reopened, many children continued to miss school days during School Year 2021–2022 for COVID-related reasons. These reasons include mandatory isolation periods due to positive test cases or exposure to someone else who tested positive. Children also missed school days because their health-compromised status or the health-compromised status of their family members prevented them from safely attending school in-person. All these children lacked access to meals at school for some or all of the school year and qualified for P-EBT benefits under the terms of the Families First Coronavirus Response Act (FFCRA).

Question 12. The agency shares a daily file of all SNAP-authorized retailers with state vendors for purposes related to their contracts with state agencies. I am hearing multiple retailers have been contacted by third-party processors (TPP) shortly after being authorized (in some cases, less than 24 hours post-authorization). I have also heard of cases where the retailer was contacted before they themselves were made aware of authorization. I have been told several complaints have been filed with FNS in recent months. Deputy Under Secretary Dean, if true, how are these third-party processors obtaining this information, in what appears to be real time? What has or is FNS planning to do to address what appears to be an improper use of personally identifiable information? If nothing, does the agency not see this as an issue? Does the agency have any plans to contact state vendors and third-party processors and advise them to not share or use this confidential information?

Answer. The Department has conducted extensive outreach to all internal and external stakeholders who have a need for the daily file of SNAP authorized retailers to remind them of their responsibilities to safeguard the information, and of the penalties associated with information release.

All stakeholders were required to acknowledge and re-sign attestations regarding information use and disclosure. USDA will ensure that all authorized users are periodically reminded of these responsibilities.

USDA also reached out to certain third parties directly to inform them of information use and disclosure penalties and provided them links to readily available public information. USDA has seen a notable downtick in complaints regarding early contacts.

Question Submitted by Hon. James R. Baird, a Representative in Congress from Indiana

Question. Deputy Under Secretary Dean, the Committee appreciates your response regarding the use of MyPlate and SNAP-Ed as educational opportunities which empower customers to purchase all forms of produce, specifically frozen. Please provide descriptive, tangible proof of Federal and state programming where the purchase of frozen foods has been encouraged.

Answer. In SNAP-Ed, messages of nutrition education and obesity prevention are to be consistent with the *Dietary Guidelines for Americans (DGAs)*. The DGAs state that all forms of fruits and vegetables, including fresh, canned, dried, frozen, and 100 percent juices, in nutrient-dense forms, can be included in healthy dietary patterns. Some examples of SNAP-Ed programming that encourages the consumption of frozen foods include:

- Webpage messaging: “Remember, fresh, frozen, canned, and dried: fruits and vegetables are a delicious way to make every bite count!” <https://snaped.fns.usda.gov/seasonal-produce-guide>
- Educational discussion guides, recipes and handouts available on this page reference the use of frozen foods <https://snaped.fns.usda.gov/nutrition-education/fns-curricula/myplate-my-family>, such as:
 - MyPlate Family Meals discussion guide https://snaped.fns.usda.gov/sites/default/files/documents/Discussion_MyPlateFamilyMeals.pdf* †
 - MyPlate Family Meals handouts complete set <https://snaped.fns.usda.gov/sites/default/files/documents/MyPlateFamilyMealsHandouts.pdf> †

* **Editor’s note:** items annotated with † are retained in Committee file.

- The Shop Simple with MyPlate app includes using frozen vegetables as well as fresh and canned. *Start Simple with MyPlate* ⁵
- “New Mainers Learn Strategies to Shop, Cook, and Eat Healthy”—A state success story about teaching participants how to use low-cost frozen and canned food items to make meals that are healthy and familiar <https://snaped.fns.usda.gov/success-stories/new-mainers-learn-strategies-shop-cook-and-eat-healthy> †
- Additional examples containing reference to frozen foods are in the links below:
 - *Berries* ⁶
 - *Search* ⁷

Question Submitted by Hon. Chris Jacobs, a Representative in Congress from New York

Question. According to USDA’s FY 2023 budget materials, “[e]ncouraging SNAP families to purchase more healthy foods remains an important priority for FNS.” And one of the ways that Congress has been doing this is through incentive programs such as the Healthy Fluid Milk Incentives Projects program, which was established in the 2018 Farm Bill to help improve nutrition security for SNAP families through healthy and nutritious dairy products. Under this program, shoppers that use SNAP benefits to purchase a qualifying fluid milk product receive a matching dollar for dollar coupon to use for additional free milk. Deputy Under Secretary Dean, can you please explain why incentive programs, such as the Healthy Fluid Milk Incentives Projects, are so important to families that benefit from SNAP?

Answer. Incentives programs are intended to increase the consumption of healthy foods by SNAP participants while making these foods more affordable. Current programs include:

- The Healthy Fluid Milk Incentives Project, which encourages the purchase and consumption of low-fat dairy;
- The Gus Schumacher Nutrition Incentive Program, which encourages the purchase and consumption of fruits and vegetables; and
- Incentives initiated by SNAP-authorized retailers for the purchase of products that meet the dietary guidelines.

In Fiscal Year 2014, USDA completed an evaluation of the Healthy Incentives Pilot (HIP). HIP made fruits and vegetables more affordable to SNAP participants. SNAP households received 30¢ on every SNAP dollar they spent on targeted fruits and vegetables at participating SNAP authorized firms including large supermarkets, grocery stores and farmers markets. This pilot operated in one Massachusetts county between November 2011 and December 2012. A rigorous evaluation showed that HIP increased the consumption of targeted fruits and vegetables by about ¼ of a cup per day.

Questions Submitted by Hon. Michael Cloud, a Representative in Congress from Texas

Question 1. Deputy Under Secretary Dean, it is my understanding that states had regulatory flexibility during the pandemic when it came to quality control reviews. In a release dated February 19, 2021, FNS specifically encouraged states to still collect this data. Do you know how many states continued collecting quality control data during the pandemic and were there any who chose not to collect this data? For those that chose not to, why?

Answer. While quality control (QC) flexibilities provided to states by Section 4603(a)(2) of the *Continuing Appropriations Act, 2021 and Other Extensions Act* ⁸ allowed states to suspend QC reviews, most states continued to conduct some reviews during the course of the suspension.

See the table below showing the number of states that continued to conduct reviews and the proportion of QC reviews states completed. Although most states completed at least some reviews, many opted to modify their sampling or review procedures in ways that make it problematic to compare data from these reviews to official, validated QC data.

⁵ <https://www.myplate.gov/resources/tools/startsimple-myplate-app>.

⁶ <https://myplate-prod.azureedge.us/sites/default/files/2020-12/Berries%205%20Ways%20%282017%29.pdf> †

⁷ <https://www.myplate.gov/search?keyword=Frozen+foods>.

⁸ <https://www.congress.gov/116/plaws/publ159/PLAW-116publ159.pdf> †

Number of States that Completed SNAP Quality Control (QC) Reviews

Fiscal Year (QC Sample Months)	0% of QC Reviews	1-25% of QC Reviews	26-50% of QC Reviews	51-75% of QC Reviews	76-100% of QC Reviews
2020 (03/2020–09/2020)	4	17	16	14	2
2021 (10/2020–06/2021)	21	8	12	6	6

Question 2. Deputy Under Secretary Dean, regulatory requirements concerning quality control were supposed to return July 2021. Does FNS have any intention of going back and retroactively developing error rates for FY 2020 and FY 2021?

Answer. Using the QC flexibilities provided to states by Section 4603(a)(2) of the *Continuing Appropriations Act, 2021 and Other Extensions Act*,⁹ many states modified their sampling or review procedures in ways that make it problematic to compare data from these reviews to official, validated QC data. These modifications impacted the quality and completeness of the data gathered and, consequently, USDA's ability to calculate statistically valid payment error rates using these data. For example, some states focused on conducting QC reviews of error-prone SNAP households, rather than reviews of a random sample of all SNAP households.

As a result, USDA is unable to use the QC data gathered for FY 2020 and FY 2021 to establish official payment error rates that comply with requirements in the Food and Nutrition Act of 2008, as amended. However, USDA has used, and will continue to use, these data to provide technical assistance to states.

Question 3. Deputy Under Secretary Dean, from the audits that FNS has conducted so far this year, what are the trends you are seeing for over and under payments?

Answer. At this time, USDA has received state-reported QC data for the first half of FY 2022. Those data are unweighted, un-regressed, and do not incorporate any adjustments that result from the Federal re-review.

The QC data currently available to USDA are considered preliminary, as they change daily with each submission of a state's QC findings. FY 2022 QC data will be final when the FY 2022 payment error rates are officially announced on June 30, 2023.

The preliminary data show that agency-caused payment errors are more than half of all payment errors, and the majority of all payment errors resulted in overpayments. The most frequent causes of payment errors are inaccurate wages and salaries, inaccurate household composition, and incorrect application of policy related to a household's reporting system. USDA continues to monitor these and other trends and to provide technical assistance to states to help improve payment accuracy.

Question Submitted by Hon. Michelle Fischbach, a Representative in Congress from Minnesota

Question. Deputy Under Secretary Dean, a nonprofit based in Minnesota is under Federal investigation over allegedly defrauding the Federal Government of tens, even hundreds of millions of dollars. Two programs, the Child and Adult Care Food Program and the Summer Food Service Program, are administered by the Food and Nutrition Service, and further managed by state agencies. This nonprofit, contracted by the state agency, has claimed feeding more children—on a daily basis—than there even exists in Minnesota's largest school district. Allegations include Federal funds meant to provide free meals to underprivileged children and adults instead went to extravagant expenses, such as property purchases in Kenya and trips to Las Vegas. State officials claimed they brought their concerns to USDA when irregularities were found, even sharing them with the Office of Inspector General. Ensuring adequate oversight and safeguards over Federal meal programs is critical to tamping down fraud and good stewardship over the taxpayer dollars. When my office requested more information surrounding this situation, it took nearly 2 months to hear that your staff cannot discuss details. That is a disappointment, and I am asking you on the record to commit to working with my staff and me to address the underlying gaps in safeguards so that this situation does not occur again in the future.

Answer. Ensuring the integrity of Federal funds granted to institutions administering and operating all of our programs, including child nutrition programs, is of the utmost importance to us at USDA and FNS welcomes working with Congress on these important matters. FNS understands that at this time, the Federal Bureau of Investigation continues its active, ongoing investigation into the administration of the Child and Adult Care Food Program (CACFP) and the Summer Food Service

⁹ <https://www.congress.gov/116/plaws/publ159/PLAW-116publ159.pdf>.

Program (SFSP) by Feeding Our Future and other sponsoring organizations in Minnesota and is thus limited in the statements we may make relative to this matter.

USDA has measures in place at both the state and Federal levels to safeguard against fraud and minimize misuse of program funds. FNS and state agencies regularly conduct oversight of FNS local program partners during local level reviews and Management Evaluations. In instances where fraud and program abuse are suspected, USDA has regulatory provisions and processes which state agencies follow. In addition, mechanisms are in place to engage other Federal entities that have specific legal authority and ability to conduct investigations on fraud or criminal wrongdoing.

ATTACHMENT 1



[<https://www.fns.usda.gov/disaster/california-disaster-nutrition-assistance>]

FNS Disaster Assistance

California Disaster Nutrition Assistance

Incident: Severe Snow Storms and Power Outages

Began on Dec. 26, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On Jan. 13, 2022, FNS approved California's request to waive timely reporting of food loss for households in Trinity County due to power outages caused by severe winter storms that began on Dec. 26, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and includes November 2021 Emergency Allotments issued on Dec. 4 and 11, 2021. The waiver will be in effect through Jan. 25, 2022.
- On Jan. 7, 2022, FNS approved California Department of Social Services (DSS) request to issue mass replacements to impacted households. This waiver approval allows households to receive replacement of benefits in certain [ZIP C]odes of 17 counties (Amador, Butte, Calaveras, El Dorado, Humboldt, Mariposa, Mendocino, Nevada, Placer, Plumas, Sierra, Siskiyou, Sonoma, Trinity, Tulare, Tuolumne and Yuba) due to power outages caused by record breaking snowfall and heavy winds that began on Dec. 26, 2021.
- On Jan. 7, 2022, FNS also approved DSS request to waive timely reporting of food loss for households in 20 counties (Alameda, Amador, Calaveras, El Dorado, Humboldt, Lake, Los Angeles, Marin, Monterey, Napa, Nevada, Orange, Placer, Sacramento, San Bernardino, San Luis Obispo, San Mateo, Santa Cruz, Sierra and Yuba counties) due to power outages caused by severe winter storms that began on Dec. 26, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and includes November 2021 Emergency Allotments issued on Dec. 4 and 11, 2021. The waiver is in effect through Jan. 25, 2022.

Incident: Severe Storms and Power Outages

Began on Oct. 22, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On Nov. 4, 2021, FNS approved California Department of Social Services' request to issue mass replacements to impacted households. This waiver approval allows households in specific [ZIP C]odes in 15 counties to receive replacement of benefits due to severe storms and Public Safety Power Shutoffs that began on Oct. 22, 2021, through Oct. 28, 2021.

Incident: Power Outages

Began: Oct. 11, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On Oct. 22, 2021, FNS approved California Department of Social Services' request to issue mass replacements to impacted SNAP households in certain [ZIP C]odes in 14 counties as a result of extreme wind and Public Safety Power Shutoffs that began on Oct. 11, 2021.

Incident: Wildfires

Began: July 20, 2021

Disaster Supplemental Nutrition Assistance Programs (D-SNAP)

- On Oct. 8, 2021, FNS approved California’s request to operate D-SNAP in six counties—Lassen, Nevada, Placer, Plumas, Tehama and Trinity—in response to the impact of wildfires that began on July 20, 2021. The state agency will begin the 7 day application period on Oct. 18, 2021 and continue through Oct. 26, 2021.

Incident: Wildfires and Power Outages

Began: June 24, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On Sept. 29, 2021, FNS approved California’s request to waive the statutory definition of “food” under Section 3(k)(1) of the Food and Nutrition Act of 2008, as amended, and companion regulations at 7 *CFR* 271.2.¹ The waiver applies to the counties of Butte, Glenn, Humboldt, Mendocino, Plumas, Shasta, Siskiyou, Tehama, and Trinity. This waiver approval allows SNAP households to purchase hot foods with SNAP benefits through Oct. 28, 2021 to replace food lost as a result of wildfires that began on July 14, 2021, and continue. FNS has notified SNAP authorized retailers in the approved county of the hot foods waiver approval. Retailers may need as much as 24–36 hours to make changes that will allow for sale of hot foods.
- On Sept. 29, 2021, FNS approved a California Department of Social Services amended request to waive timely reporting of food loss for households in Shasta County. This waiver approval allows impacted households to make a request for replacement of SNAP benefits, as well as August 2021 Emergency Allotments issued on Sept. 4, 2021, for replacement of food purchased with SNAP benefits that was lost as a result of power outages due to the Fawn Fire that began on Sept. 22, 2021. The waiver will be in effect through Oct. 22, 2021.
- On Sept. 24, 2021, FNS approved the California Department of Social Services’ amended request to waive timely reporting of food loss for households in Riverside County. This waiver approval will allow impacted households to make a request for replacement of SNAP benefits. The waiver will be in effect through Oct. 1, 2021.
- On Sept. 20, 2021, FNS approved the California Department of Social Services to allow SNAP households in 83 impacted [ZIP C]odes of 27 counties additional time to seek replacements via the individual attestation process, including in some areas previously approved for a waiver of timely reporting of food loss. This waiver approval allows impacted households to make a request for replacement of SNAP benefits for replacement of food purchased with SNAP benefits that was lost as a result of power outages and Public Safety Power Shutoffs from Aug. 1, 2021, through Aug. 19, 2021. The waiver will be in effect through Oct. 1, 2021.
- On Sept. 8, 2021, FNS approved California’s request to waive the statutory definition of “food” under Section 3(k)(1) of the Food and Nutrition Act of 2008, as amended, and companion regulations at 7 *CFR* 271.2.² The waiver applies to the counties of Butte, El Dorado, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, and Yuba. This waiver approval will allow SNAP households to purchase hot foods with SNAP benefits through Oct. 3, 2021 to replace food lost as a result of multiple wildfires that began on July 14, 2021 and continue. FNS has notified SNAP authorized retailers in the approved counties of the hot foods waiver approval. Retailers may need as much as 24–36 hours to make changes that will allow for sale of hot foods.
- On Sept. 5, 2021, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in Kern County. This waiver approval will allow impacted households to make a request for replacement of regular SNAP benefits, as well as July 2021 Emergency Allotments issued on Aug. 7, 2021, for replacement of food purchased with SNAP benefits that was lost as a result of power outages due to the French Fire that began on Aug. 30, 2021. The waiver will be in effect through Sept. 29, 2021. On Aug. 30, 2021, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in Riverside County. This waiver approval allows impacted households to make a request for re-

¹<https://www.ecfr.gov/current/title-7/subtitle-B/chapter-II/subchapter-C/part-271/section-271.2>.

²<https://www.ecfr.gov/current/title-7/subtitle-B/chapter-II/subchapter-C/part-271/section-271.2>.

- placement of SNAP benefits, for replacement of food purchased with SNAP benefits that was lost as a result of power outages and the Westward Fire that began on Aug. 25, 2021. The waiver will be in effect through Sept. 24, 2021.
- On Sept. 3, 2021, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in San Bernardino County. This waiver approval will allow impacted households to make a request for replacement of regular SNAP benefits, as well as July 2021 Emergency Allotments that were issued on Aug. 7, 2021, for replacement of food purchased with SNAP benefits that was lost as a result of power outages due to the Railroad, Roadside, and South Fires that began on Aug. 25, 2021. The waiver will be in effect through Sept. 24, 2021.
 - On Aug. 23, 2021, FNS approved a California Department of Social Services request to waive timely reporting of food loss for households in Trinity and Shasta counties for food that was lost as a result of the McFarland and Monument fires. For Trinity County, FNS approved the waiver to allow impacted households sufficient time to report food purchased with regular SNAP benefits and subsequently lost. This waiver approval allows impacted households to make a request for replacement of SNAP benefits through Sept. 16, 2021. In Shasta County, FNS granted approval to allow impacted households in Shasta County sufficient time to report their loss of food. Replacements would be authorized for the amount of the loss, not to exceed the monthly allotment for the household, as well as the household's July 2021 Emergency Allotments that were issued on Aug. 7, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and EA benefits through Sept. 16, 2021.
 - On Aug. 16, 2021, FNS approved the California Department of Social Services' request to waive timely reporting of food loss for households in Yuba County. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and July 2021 Emergency Allotments issued on Aug. 7, 2021, for replacement of food purchased with SNAP benefits that was lost as a result of power outages and the Glen Fire that began on Aug. 11, 2021. The waiver will be in effect through Sept. 10, 2021.
 - On Aug. 12, 2021, FNS approved the California Department of Social Services' request to waive timely reporting of food loss for households in Siskiyou County. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and June 2021 Emergency Allotments as a result of power outages and the River Complex and Antelope Fires that began on July 30, 2021. The waiver will be in effect through Aug. 30, 2021.
 - On Aug. 9, 2021, FNS approved the California Department of Social Services' request to waive timely reporting of food loss for households in Nevada and Placer counties as a result of power outages and the River Fire that began on Aug. 4, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits through Sept. 3, 2021.
 - On Aug. 4, 2021, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in El Dorado County. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and July 2021 Emergency Allotments issued on Aug. 7, 2021 that were lost as a result of power outages and the Caldor Fire that began on Aug. 14, 2021. The waiver will be in effect through Sept. 13, 2021.
 - On July 29, 2021, FNS has approved the California Department of Social Services request to waive timely reporting of food loss for households in Mono County due to power outages and the Tamarack Fire. This waiver approval allows impacted households to make a request for replacement of SNAP benefits and June 2021 Emergency Allotments issued on July 17, 2021. The waiver will be in effect through Aug. 23, 2021.
 - On July 26, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in Lassen County, for replacement of food purchased with SNAP benefits lost as a result of power outages and the Beckwourth Complex Fire that began on July 12, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits through Aug. 11, 2021.
 - On July 22, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in Alpine County for the replacement of food purchased with SNAP benefits that was lost as a result of the power outages that began July 16, 2021. This waiver approval allows im-

ected households to make a request for replacement of SNAP benefits through Aug. 16, 2021.

- On July 21, 2021, FNS approved the California Department of Social Services' request to waive timely reporting of food loss for households in Mariposa County for the replacement of food purchased with SNAP benefits that was lost as a result of the River Fire that began on July 11, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits through Aug. 10, 2021.
- On July 15, 2021, FNS approved California's request to waive timely reporting of food loss for households in Mendocino County as a result of the Broiler Fire that began on July 7, 2021. This waiver approval will allow impacted households to make a request for replacement of SNAP benefits through Aug. 6, 2021.
- On July 12, 2021, FNS approved the California Department of Social Services request to waive timely reporting of food loss for households in Shasta County for replacement of food purchased with SNAP benefits that was lost as a result of wildfires that began on June 30, 2021. This waiver approval allows impacted households to make a request for replacement of regular SNAP benefits, as well as May 2021 Emergency Allotments issued on June 13, 2021. The waiver will be in effect through July 30, 2021.
- On July 7, 2021, FNS approved a California Department of Social Services request to waive timely reporting of food loss for households in Siskiyou County, for replacement of food purchased with SNAP benefits that was lost as a result of a wildfire that began on June 24, 2021. This waiver approval allows impacted households to make a request for replacement of SNAP benefits through July 26, 2021.

Incident: Mono Wind Event

Began: Jan. 18, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On April 6, 2021, FNS approved an extension to allow impacted households in California to make a request for replacement of SNAP benefits through April 30, 2021 as a result of power outages that began on Jan. 18, 2021.
- On Jan. 26, 2021, FNS approved California's request to waive timely reporting of food loss for households in Mariposa County. This waiver allows affected households to make a request for replacement of SNAP benefits through Feb. 21, 2021, as a result of the Mono Wind Event that began on Jan. 18, 2021.

Incident: Snowstorm

Began: Jan. 26, 2021

Supplemental Nutrition Assistance Programs (SNAP)

- On Feb. 4, 2021, FNS approved California's request to waive timely reporting of food loss for households in Shasta County as a result of a large snowstorm that began on Jan. 26, 2021, that caused the closure of vital roads and infrastructure, downed trees, and widespread power outages. This waiver approval allows affected households to make a request for replacement of SNAP benefits through Feb. 26, 2021.

Incident: Mountain View Fire

Began: Nov. 17, 2020

Supplemental Nutrition Assistance Programs (SNAP)

- On Nov. 25, 2020, FNS approved California's request to waive timely reporting of food loss for households in Mono County. This waiver allows affected households to make a request for replacement of SNAP benefits through Dec. 17, 2020, for replacement of food purchased with SNAP benefits that was lost as a result of the Mountain View Fire that began on Nov. 17, 2020.

Incident: Power Outages

Began: Oct. 14, 2020

Supplemental Nutrition Assistance Programs (SNAP)

- On Nov. 16, 2020, FNS approved California's request to issue mass replacements to impacted households as a result of power outages that occurred on Oct. 14, 2020. This waiver allows households to receive replacement of 35 percent of SNAP and Emergency Allotment benefits issued in October 2020, in the 174 approved [ZIP C]odes in 31 counties.

Incident: California Wildfires

Began: Sept. 4, 2020

Supplemental Nutrition Assistance Programs (SNAP)

- On Nov. 5, 2020, FNS approved California's request to operate D-SNAP in the ten counties, listed below, in response to the impact of wildfires that began on Sept. 4, 2020. The application period is Monday, Nov. 16, 2020 through Friday, Nov. 20, 2020.

Impacted counties: Fresno, Los Angeles, Madera, Mendocino, Napa, San Bernardino, San Diego, Shasta, Siskiyou and Sonoma counties.

Incident: California Wildfires

Began: Aug. 14, 2020

Supplemental Nutrition Assistance Programs (SNAP)

- On Oct. 26, 2020, FNS approved California's request to waive the statutory definition of "food" under Section 3(k)(1) of the Food and Nutrition Act of 2008, as amended, and companion regulations at 7 CFR 271.2. The waiver applies to 35 counties. This waiver allows SNAP households to purchase hot foods with SNAP benefits in the 35 approved counties through Nov. 22, 2020.
- On Oct. 6, 2020, FNS approved California's request to waive timely reporting of food loss for households in Shasta County. This waiver allows affected households to make a request for replacement of SNAP benefits through Oct. 26, 2020.
- On Oct. 6, 2020, FNS approved California's request to issue mass replacements to impacted households. This waiver allows households to receive replacement of 40 percent of September benefits in 16 [ZIP C]odes in 10 counties as a result of wildfires and power outages that began on Sept. 26, 2020.
- On Sept. 29, 2020, FNS approved California's request to operate D-SNAP in nine counties in response to the impact of wildfires that began Aug. 14, 2020. For Lake, Monterey, Napa, San Mateo, Santa Cruz, Solano, Sonoma and Yolo counties, the application period will begin no earlier than Oct. 14 through Oct. 16, 2020, then resume on Oct. 19 through Oct. 22, 2020. For Butte County, the application period will begin no earlier than Oct. 21 through Oct. 23, 2020, then resume on Oct. 26 through Oct. 29, 2020.
- On Sept. 24, FNS approved California's request to waive the statutory definition of "food" under Section 3(k)(1) of the Food and Nutrition Act of 2008, as amended, and companion regulations at 7 CFR 271.2. for six counties. This waiver approval allows SNAP households to purchase hot foods with SNAP benefits in the approved counties through Oct. 22, 2020.
- On Sept. 21, 2020, FNS approved California's request to issue mass replacements to impacted households. This waiver allows households to receive replacement of 50% of September benefits in the 83 [ZIP C]odes as a result of wildfires and power outages.
- On Sept. 15, 2020, FNS approved California's request to waive timely reporting of food loss for households in Siskiyou County. This waiver approval allows households to make a request for replacement of SNAP benefits through Oct. 8, 2020. These replacement SNAP benefits will allow households to replace food lost as a result of power outages and the Slater Fire that began on Sept. 8, 2020.
- On Sept. 14, 2020, FNS approved California's request to waive timely reporting of food loss for households in seven counties. This waiver approval allows households to make a request for replacement of SNAP benefits through Oct. 5, 2020, as a result of power outages and wildfires
- On Sept. 3, 2020, FNS approved California's request to issue SNAP mass replacements to impacted households. This waiver approval allows households to receive replacement of 50 percent of August benefits for 23 [ZIP C]odes in 12 counties as a result of wildfires and power outages.
- On Aug. 26, 2020, FNS approved California's request to waive the timely reporting of food loss in the eight affected counties listed below. This waiver approval allows households to request, by individual affidavit/attestation, replacement of SNAP benefits for food lost as a result of wildfires and power outages that began on Aug. 14, 2020. The waiver applies from Aug. 14, 2020, through Sept. 14, 2020.

Impacted counties: Lake, Monterey, Napa, San Mateo, Santa Cruz, Solano, Sonoma and Yolo.

- On Aug. 26, 2020, FNS approved California's hot food waiver request. This waiver allows SNAP households in the eight affected counties listed below to purchase hot foods and hot food products with SNAP benefits through Sept. 23, 2020.

Impacted counties: Lake, Monterey, Napa, San Mateo, Santa Cruz, Solano, Sonoma and Yolo.

Because many households within these counties have been displaced or have temporarily relocated to other parts of the state, the waiver is extended to the bordering counties of Alameda, Colusa, Contra Costa, Glenn, Marin, Mendocino, Sacramento, Santa Clara and Sutter.

Incident: Wildfire

Began: October 2019

Supplemental Nutrition Assistance Programs (SNAP)

- On Nov. 18, 2019, FNS approved a mass replacement request from the state of California to 104 [ZIP C]odes in 20 counties. The waiver approval will allow households in these affected [ZIP C]odes to receive replacement of 15% of the October SNAP benefit. These replacement SNAP benefits will allow households to replace food lost as a result of proactive de-energization of power lines by Pacific Gas and Electric and Southern California Edison that occurred from Oct. 23, 2019 through Oct. 31, 2019.
- On Nov. 1, 2019, FNS approved a waiver request from the state of California to waive timely reporting of food loss to households for the entire state of California. This waiver approval allows households in the affected areas to request a replacement of SNAP benefits through Nov. 22, 2019, to replace food lost as a result of Pacific Gas and Electric and Southern California Edison power outages that began Oct. 23, 2019.
- On Oct. 21, 2019, FNS approved California's request to issue mass replacements to 231 [ZIP C]odes in 28 counties. This waiver approval allows households in these affected [ZIP C]odes to receive replacement of 60 percent of the October SNAP benefit. These replacement SNAP benefits allow households to replace food lost as a result of proactive de-energization of power lines by Pacific Gas and Electric and Southern California Edison that began on Oct. 9, 2019. Child Nutrition Programs
- On Oct. 30, 2019, FNS approved a request from California for SFAs impacted by the public safety power outages. The California Department of Education made this request on behalf of SFA in 45 counties. The state agency reported that schools in the affected counties are experiencing spoiled food inventory, making compliance with the school meal pattern requirements difficult. Schools in the affected counties may serve and claim for reimbursement school lunch and breakfast meals that do not meet the meal pattern requirements, through Nov. 12, 2019.

Incident: Kincadee Wildfire

Began: October 2019

Child Nutrition Programs

- On Nov. 1, 2019, FNS approved the request for the National School Lunch Program (NSLP) and the School Breakfast Program (SBP) meal pattern flexibility in the 38 school food authorities (SFAs) in Sonoma County and six SFAs in Lake County impacted by the Kincadee fire effective Oct. 23, 2019 through Nov. 25, 2019.

Incident: California Earthquake

July 2019

Child Nutrition Programs

- On Aug. 1, 2019, FNS issued a letter approving a request for two school districts in Kern and San Bernardino Counties, California impacted by two major earthquakes. Trona Joint Unified School District and Sierra Sands Unified School District may serve lunches and breakfasts for reimbursement that do not meet the National School Lunch Program and School Breakfast Program meal patterns through Sept. 30, 2019. The state agency reported that the earthquakes have damaged numerous schools, homes, commercial structures, and roadways. This approval is expected to help Trona Joint Unified School District and Sierra Sands Unified School District overcome barriers to standard Program operations as the districts recover from the earthquakes.

- On July 12, 2019, FNS approved the California Department of Education's (CDE) request for flexibility in meal pattern requirements for SFA operating the Seamless Summer Option in communities affected by earthquakes in Kern and San Bernardino Counties on July 4 and 5, 2019. This approval allows affected schools to serve meals that do not meet the NSLP meal pattern, through Aug. 5, 2019.

Incident: California Earthquake

July 2019

Supplemental Nutrition Assistance Programs (SNAP)

- On July 9 and July 11, 2019, FNS approved California's requests to waive timely reporting of food loss for households in Kern County and San Bernardino counties; this waiver approval will allow households in Kern and San Bernardino County to make a request for replacement of SNAP benefits through Aug. 5, 2019. These replacement SNAP benefits will allow households to replace food lost due to power outages caused by earthquakes and aftershocks that began on July 4, 2019.

Incident: California Storms and Subsequent Power Outages

February 2019

Supplemental Nutrition Assistance Programs (SNAP)

- On March 4, 2019, FNS approved California's request to waive timely reporting of food loss to households in the counties of Lake, Sonoma and Mendocino. This waiver approval will allow households in these affected counties to make a request for replacement of SNAP benefits through March 26, 2019. These replacement benefits will allow households to replace food lost due to heavy rainfall and flooding resulting from storms that began on Feb. 25, 2019.

Incident: Snow Storms and Subsequent Power Outages

February 2019

Supplemental Nutrition Assistance Program (SNAP)

- On Feb. 25, 2019, FNS approved California's request to waive timely reporting of food loss to households in Shasta County and will allow households in the affected county to make a request for replacement of SNAP benefits through March 14, 2019. These replacement benefits will allow households to replace food lost due to power outages resulting from the snow storms.
- FNS also approved California's request to issue mass replacements of SNAP benefits for residents in impacted [ZIP C]odes in Shasta County that suffered food losses resulting from power outages caused by the snow storms that began on Feb. 12, 2019.

Incident: Camp, Hill, and Woolsey Fires

November 2018

Disaster Supplemental Nutrition Assistance Program (D-SNAP)

- On Nov. 29, 2018, FNS approved California's request to operate a D-SNAP in Butte County starting on December 12. Look for specific information regarding D-SNAP eligibility and operations on state web pages or call the state's SNAP hotline.
 - SNAP Hotline: 877-847-3663
 - *Disaster CalFresh*³
 - If you need assistance with or a replacement of your EBT card, please call the state's EBT customer service number at: 877-328-9677
- On Nov. 28, 2018, FNS approved California's request to operate a D-SNAP in certain [ZIP C]odes Los Angeles and Ventura counties starting on December 3. Look for specific information regarding D-SNAP eligibility and operations on state web pages or call the state's SNAP hotline.
 - SNAP Hotline: 877-847-3663
 - *Disaster CalFresh*⁴
 - If you need assistance with or a replacement of your EBT card, please call the state's EBT customer service number at: 877-328-9677

³<http://www.cdss.ca.gov/Disastercalfresh>.

⁴<http://www.cdss.ca.gov/Disastercalfresh>.

Supplemental Nutrition Assistance Program (SNAP)

- On Dec. 18, 2018, FNS approved California's extension request to allow hot foods to be purchased at SNAP authorized retailers through Jan. 16, 2019. The waiver applies to the counties of Butte, Colusa, Glenn, Plumas, Sutter, Tehama and Yuba.
- On Nov. 29, 2018, FNS approved California's request to issue automatic disaster supplements to ongoing SNAP households in the following [ZIP C]odes in Butte County: 95916, 95928, 95942, 95954, 95965, 95966, 95969 and 95978.
- On Nov. 28, 2018, FNS approved California's request to issue automatic disaster supplements to ongoing SNAP households in the following [ZIP C]odes:
 - Los Angeles: 90263, 90290, 90265, 91302, 90264, 91012, 91301, 91304, 91307, 91361, 91362 and 91372;
 - Ventura: 91377, 91320, 91361, 91362, 93012, 93042 and 93065.
- On Nov. 21, 2018, FNS approved California's request to issue mass replacements of SNAP benefits for residents in the following impacted [ZIP C]odes:
 - Ventura County: 91377
 - Los Angeles County: 90263, 90290, 90265 and 91302
- On Nov. 19, 2018, FNS approved California's request to issue mass replacements of SNAP benefits for residents that suffered food losses due to power outages caused by the Camp Fire and proactive de-energization of power lines by the local utility. This approval applies to the following impacted [ZIP C]odes:
 - Butte County: 95978, 95942, 95954 and 95969
 - Plumas County: 95923, 95984, 95956, 95983, 96137, 95947, 95971, 95934 and 95915
- On Nov. 16, 2018, FNS approved California's request to allow; hot foods to be purchased at SNAP authorized retailers through Dec. 17, 2018. The waiver applies to the counties of Butte, Colusa, Glenn, Kern, Los Angeles, Orange, Plumas, Tehama, Santa Barbara, San Bernardino, San Luis Obispo, Sutter, Yuba and Ventura.
 - *Hot Foods Notice to Retailers*⁵
 - Retailers may need 24–36 hours to make changes that will allow for the sale of hot foods
- On Nov. 16, 2018, FNS approved California's request to waive timely reporting of food loss to households in the counties of Butte, Ventura and Los Angeles. This waiver approval will allow households in these affected counties to make a request for replacement of SNAP benefits through Dec. 10, 2018.

Disaster Household Distribution Program (DHD)

- On Nov. 21, 2018, FNS approved a request from California to operate a Disaster Household Distribution Program in Butte County and surrounding areas (Colusa, Glenn, Plumas, Tehama, Shasta, Sutter and Yuba Counties). The program is expected to serve up to 8,000 people with food boxes beginning November 26 and operating for approximately 2 weeks.

Child Nutrition Programs

- On Dec. 20, 2018, FNS approved California's request to extend disaster waivers for Paradise Unified School District. Paradise Unified School District may continue to serve and claim for reimbursement for school lunch and breakfast meals that do not meet the meal pattern requirements through March 1, 2019. Paradise Unified School District may also continue to serve all school lunch and breakfast meals to students at no cost and claim meals at the free reimbursement rate through March 1, 2019.
- On Nov. 30, 2018, FNS issued a disaster approval for Butte County in response to the Camp Fire. Schools in Butte County may serve and claim for reimbursement school lunch and breakfast meals that do not meet the meal pattern requirements through Dec. 31, 2018. Schools in Butte County may also serve all school lunch and breakfast meals to students at no cost and claim meals at the free reimbursement rate through Dec. 31, 2018.

⁵https://www.fns.usda.gov/sites/default/files/disaster/11-16-California_Hot_Foods_Notice_to_Retailers.pdf.

Incident: Wildfire

Oct. 14, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On Oct. 24, 2018, FNS approved California's request to issue mass replacements of SNAP benefits for residents that suffered food losses resulting from power outages, which occurred when power was proactively shut down due to extreme fire conditions. This approval applies to the following impacted [ZIP C]odes:
 - Amador County: 95601, 95666, 95689, 95665 and 95629
 - Butte County: 95914
 - Calaveras County: 95257, 95255, 95232 and 95248
 - El Dorado County: 95636, 95634, 95726, 95684, 95633, 95720, 95635 and 95667
 - Lake County: 95426, 95461, 95467 and 95423
 - Napa County: 94508, 94567, 94576 and 94515
 - Placer County: 95631, 95714, 95717 and 95701
 - Yuba County: 95962, 95935 and 95919
- California intends to issue replacement benefits as early as Oct. 25, 2018.

Incident: Carr Wildfire

Began July 23, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On July 28, FNS approved California's request for timely household reporting of food loss for Shasta County. This waiver approval allowed households to make a request for replacement of SNAP benefits through Aug. 21, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the Carr Fire.
- On Aug. 8, FNS approved California's request for timely household reporting of food loss for Trinity County. This waiver approval will allow households to make a request for replacement of SNAP benefits through Sept. 5, 2018. These replacement SNAP benefits will allow households to replace food lost as a result of the Carr Fire.
- On Aug. 10, 2018, FNS approved the California request for automatic mass replacements in Shasta County. This waiver approval will allow households to receive replacement benefits without having to appear at a local SNAP office to sign an affidavit attesting to food loss, and will allow local DSS offices to operate the program in a more efficient and effective manner. This waiver applies to the following [ZIP C]odes: 96033, 96047 and 96087.
- On Aug. 15, 2018, FNS approved the California Department of Social Services' request to operate D-SNAP in Shasta County due to the impacts of the ongoing Carr Fire. The state agency accepted D-SNAP applications from Aug. 22 through Aug. 25, 2018, and will continue to accept application from Aug. 27 through Aug. 29, 2018. FNS also approved automatic supplements for ongoing SNAP households in [ZIP C]odes 96001, 96003, 96019, 96079, 96089, 96033, 96087, 96047 and 96095.
- On Aug. 16, 2018 FNS approved California's request to allow for hot foods to be purchased at SNAP authorized retailers. Due to the power outages, displacement from homes and structure loss caused by the Carr Fire, FNS has approved a waiver so that affected SNAP households in Butte, Glenn, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama and Trinity counties are able to buy hot foods and hot food products with their SNAP benefits through Sept. 16, 2018.

Child Nutrition Programs

- On Aug. 10, FNS approved California's request for disaster waivers to assist schools impacted by the Carr Fire. These waivers apply to schools that operate the school lunch and school breakfast programs in Shasta County.
 - Schools in Shasta County may serve and claim all school lunch and school breakfast meals at the Free Reimbursement Rate, effective Aug. 13 through Sept. 30, 2018.
 - Schools in Shasta County may serve school lunch and school breakfast meals that do not meet the menu planning or meal pattern requirements, effective Aug. 13 through Sept. 30, 2018.

- California also has the discretion to execute the following flexibilities in Shasta County: Flexibility to allow organizations with current agreements to operate the Summer Food Service Program to open emergency feeding sites, Flexibility to allow Summer Food Service Program sites to be located at school sites during school closure, and Flexibility to designate any appropriate facility as an emergency shelter and waive Child and Adult Care Food Program application requirements.

Incident: Cranston Fire

Began July 25, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On August 6, FNS approved California's request for timely household reporting of food loss for Riverside County. This waiver approval allowed households to make a request for replacement of SNAP benefits through Aug. 23, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the Cranston Fire.
- On Aug. 13, 2018, FNS approved California's request to issue mass replacements for certain [ZIP C]odes in Riverside County. This waiver approval will allow the California Department of Social Services to automatically replace 30 percent of the July 2018 SNAP benefit for households affected by the Cranston Fire in the following [ZIP C]odes: 92536, 92539 and 92561.

Incident: Mendocino Complex Wildfire

Began July 27, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On July 31, FNS approved California's request for timely household reporting of food loss for Mendocino and Lake Counties. This waiver approval allowed households to make a request for replacement of SNAP benefits through Aug. 26, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the River and Ranch Fires.
- On Aug. 10, 2018, FNS approved the California request for automatic mass replacements in Lake and Mendocino Counties. This waiver approval will allow households to receive replacement benefits without having to appear at a local SNAP office to sign an affidavit attesting to food loss, and will allow local DSS offices to operate the program in a more efficient and effective manner. This waiver applies to the following [ZIP C]odes:
 - Lake County: 95458, 95464, 95485 and 95493;
 - Mendocino County: 95410, 95415, 95420, 95427, 95432, 95437, 95456, 95459, 95460, 95463, 95466, 95469, 95470, 95482, 95488, 95490 and 95494.
- On Aug. 20, 2018, FNS approved the California Department of Social Services' request to operate D-SNAP in Lake County. The state agency accepted D-SNAP applications from Aug. 22 through Aug. 25, 2018, and will continue to accept applications from Aug. 27 through Aug. 29, 2018. FNS also approved automatic supplements for ongoing SNAP households in [ZIP C]odes: 95458, 95464, 95485, 95493, 95453, 95423, 95451, 95443, and 95435.
- On Aug. 20, 2018, FNS approved an amended hot foods waiver so that affected SNAP households in Colusa, Lake, Mendocino, Napa, Sonoma, and Yolo counties are able to buy hot foods and hot food products with their SNAP benefits through Sept. 16, 2018.

Incident: Ferguson Wildfire

Began July 13, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On July 25, 2018, FNS approved California's request for timely household reporting of food loss for Mariposa County. This waiver approval allowed households to request replacement of SNAP benefits through Aug. 13, 2018. These replacement SNAP benefits allow households to replace food lost as a result of the Ferguson Fire.

Incident: Klamathon Wildfire

Began July 5, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On July 13, FNS approved California's request for timely household reporting of food loss for Siskiyou County, California. This waiver approval allowed households to make a request for replacement of SNAP benefits through Aug. 6, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the Klamathon Fire.

Incident: Pawnee Wildfire

Began June 23, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On June 29, 2018, FNS approved California's request for timely household reporting of food loss for Lake County, California. This waiver approval allowed households to make a request for replacement of SNAP benefits through July 23, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the Pawnee Fire.

Incident: Wildfires and Mudslides

Began Dec. 4, 2017 and Jan. 9, 2018

Supplemental Nutrition Assistance Program (SNAP)

- On Feb. 8, 2018, FNS approved the California Department of Social Services' (CDSS) request to operate a D-SNAP in 11 [ZIP C]odes within Los Angeles and San Diego counties due to the impact of multiple wildfires in December 2017. The approved [ZIP C]odes were: 91342, 91040, 91042, 91355, 91381, 91384 and 90077 (Los Angeles County) and 92028, 92003, 92084 and 92057 (San Diego County). CDSS accepted D-SNAP applications in Los Angeles County for 7 non-consecutive days, beginning Feb. 13 through Feb. 16, 2018, then resumed on Feb. 20, and ended on Feb. 22, 2018. CDSS accepted D-SNAP applications in San Diego County for 5 days, beginning Feb. 12, through Feb. 16, 2018. The state agency may have automatically issued a 1 month disaster supplement to all ongoing SNAP households in the 11 approved [ZIP C]odes. Ongoing households that lived or worked outside of these 11 [ZIP C]odes may have requested disaster supplements on an individual basis via a signed affidavit attesting to their disaster losses. Ongoing SNAP households already receiving the maximum monthly SNAP allotment for their household size were not eligible for disaster supplements. No household may receive more than the maximum monthly allotment for their household size.
- On Feb. 1, 2018, FNS approved a waiver so that affected SNAP recipients in Santa Barbara and Ventura counties were able to buy hot foods and hot food products with their SNAP benefits through Feb. 28, 2018.
- On Feb. 1, 2018, FNS approved the California Department of Social Services' (CDSS) request to operate a Disaster Supplemental Nutrition Assistance Program (D-SNAP) in Santa Barbara and Ventura counties due to the combined impact of multiple wildfires in December 2017 and mudslides in January 2018. CDSS accepted D-SNAP applications in Santa Barbara and Ventura counties for 7 non-consecutive days, beginning Feb. 6 through Feb. 9, then resumed on Feb. 12, and ended on Feb. 14, 2018. CDSS accepts applications at seven CDSS offices in the approved counties. The state agency may have automatically issued a 1 month disaster supplement to all ongoing SNAP households in the following 20 [ZIP C]odes that experienced either a power outage of more than 4 hours, mandatory evacuations, or both:
 - Santa Barbara: 93102, 93105, 93108, 93110, 93111, 93067, 93103 93117
 - Ventura: 93001, 93003, 93004, 93012, 93013, 93015, 93022, 93023, 93033, 93035, 93041 and 93060
- Because ongoing households may have been impacted in December, January, or both months, the state determined the amount of the supplement based on the household's size and composition in the earliest month it was affected. Ongoing households that lived or worked outside of these [ZIP C]odes may have requested disaster supplements on an individual basis via a signed affidavit attesting to their disaster losses. Ongoing SNAP households already receiving the maximum monthly SNAP allotment for their household size were not eligible for disaster supplements. No household may receive more than the maximum monthly allotment for their household size.
- On Dec. 21, 2017, FNS approved California's request to issue SNAP mass replacement benefits for certain [ZIP C]odes in Ventura County. This waiver approval allowed the California Department of Social Services to automatically replace 60 percent of the December 2017 SNAP benefit for households affected by

the wildfires in the following [ZIP Codes in Ventura County: 93001, 93004, 93012, 93022, 93033, 93035 and 93041. These replacement benefits allowed households to replace food lost as a result of the fires. On Dec. 22, 2017, FNS approved an amendment to California's request for mass replacement of SNAP benefits at 60 percent, in San Diego County, for the following [ZIP Codes: 91905, 91916, 91963, 91980, 92036, 92066, 92070 and 92086.

- On Dec. 10 and 13, 2017, respectively, FNS approved the California Department of Social Services' (DSS) requests to waive the 10 day reporting requirement under SNAP regulations at 7 CFR 274.6(a) for replacement of food purchased with SNAP benefits that was destroyed due to power outages or structural damage/loss of homes resulting from the California Wildfires that began on Dec. 4, 2017. The waiver applied to all of Ventura County and the impacted [ZIP Codes in Santa Barbara County: 93013, 93067, 93101, 93105, 93106, 93108, 93109, 93110, 93111, 93117, and 93436; Los Angeles County: 90077, 91020, 91040, 91046, 91202, 91203, 91205, 91206, 91208, 91209, 91214, 91221, 91331, 91342, 91355, 91392 and 91393; and San Diego County: 91901, 91905, 91906, 91916, 91917, 91931, 91934, 91935, 91948, 91962, 91963, 91980, 92003, 92026, 92027, 92028, 92036, 92054, 92056, 92057, 92058, 92059, 92060, 92061, 92065, 92066, 92069, 92070, 92082, 92083, 92084 and 92086. The waiver extended the time period for reporting loss of food until Jan. 4, 2018. These replacement SNAP benefits allowed households to replace food lost as a result of the fires.

*California Department of Social Service's CalFresh Website*⁶

If you think you may be eligible for disaster food assistance in your state, please contact your *local state office*.⁷

01/10/2022.

ATTACHMENT 2



[<https://www.fema.gov/disaster/5336>]

California Czu Lightning Fire Complex

FM-5336-CA



Incident Period: Aug. 20, 2020
Declaration Date: Aug. 20, 2020

Quick Links

Recovery resources: *State & Local*¹ | *National*²

Connect: *Social Media*⁴ | *Mobile App & Text*⁵

24/7 counseling: *Disaster Distress Helpline*⁶

More About This Disaster

Designated Areas Individual Assistance | **Public Assistance** | **How a Disaster Gets Declared**⁷

⁶ <http://www.cdss.ca.gov/inforesources/calfresh>.

⁷ <https://www.fns.usda.gov/snap/state-directory>.

¹ <https://www.fema.gov/disaster/5336#local-resources>.

² <https://www.fema.gov/disaster/national-referral-list>.

⁴ <https://www.fema.gov/about/news-multimedia/social-media>.

⁵ <https://www.fema.gov/about/news-multimedia/mobile-app-text-messages>.

⁶ <https://www.samhsa.gov/find-help/disaster-distress-helpline>.

⁷ <https://www.fema.gov/disaster/5336/designated-areas>.

News & Media Events | *Press Releases & Fact Sheets* | *PDFs, Graphics & Multimedia*⁸
Reports & Notices | *Disaster Federal Register Notices* | *Preliminary Damage Assessments*⁹

Local Resources

Local Offices

*California Office of Emergency Services*¹⁰
*California Office of the Governor*¹¹
*California State and Local Referrals*¹²
*California Statewide Wildfire Recovery Resources information*¹³
*Inciweb—Incident Information System*¹⁴

Local News & Media

Visit the *News & Media*¹⁵ page for events, fact sheets, press releases and other multimedia resources.

Funding Obligations

If and when financial assistance is approved for this disaster, it will be displayed here. Information is updated every hour.

Last updated August 22, 2020.

ATTACHMENT 3A

July 11, 2016

SASHA GERSTEN-PAAL,
Branch Chief, Certification Policy Branch,
 Program Development Division,
 Supplemental Nutrition Assistance Program,
 USDA Food and Nutrition Service,
 Alexandria, VA

Re: Proposed Rule on Disaster Supplemental Nutrition Assistance Program (D-SNAP), Docket RIN 0584-AE00

Dear Ms. Gersten-Paal:

On behalf of the Western Center on Law and Poverty (Western Center) and the California Association of Food Banks (CAFB), we are submitting these comments on the United States Department of Agriculture's (USDA's) Food and Nutrition Service (FNS) Proposed Rule on the Disaster Supplemental Nutrition Assistance Program (D-SNAP). Our organizations have over a decade of experience and partnership in response to emergency food needs to prevent hunger following disaster in California. It has been our experience that D-SNAP is essential in helping households and communities during disaster recovery. The proposed rules take important steps toward ensuring D-SNAP is there to help Americans and their communities recovering following disaster.

About Our Organizations

Western Center represents California's poorest residents in policy and budget discussions affecting housing, health and public benefits, including SNAP. Western Center serves as one of the statewide support centers for Legal Services, providing technical assistance and training in the SNAP program, including D-SNAP, for legal services throughout the state. We also serve on several committees and task forces convened by the California Department of Social Services to advise on SNAP, the Electronic Benefit Transfer System (EBT) and public benefit online application and services and to support implementation of new policies. As such, Western Center has played a significant role in supporting the state's implementation of SNAP disaster response.

CAFB is a membership organization of 44 food banks from throughout the state with a shared mission to end hunger in California and a firm commitment to pro-

⁸ <https://www.fema.gov/disaster/5336/news-media>.

⁹ <https://www.fema.gov/disaster/5336/notices>.

¹⁰ <http://www.caloes.ca.gov/>.

¹¹ <http://gov.ca.gov/>.

¹² <https://www.fema.gov/node/california-state-and-local-level-referrals>.

¹³ <https://wildfirerecovery.caloes.ca.gov/>.

¹⁴ <https://inciweb.nwcg.gov/>.

¹⁵ <https://www.fema.gov/disaster/5336/news-media>.

viding cutting-edge leadership in the anti-hunger community. CAFB's major programs include Farm to Family, which works with growers and packers to provide fresh produce to food banks; statewide programs for SNAP outreach and enrollment; robust state and Federal advocacy efforts; produce education; and member services that offer assistance with special projects as well as technical support. As such, CAFB has played a central role in disaster response in recent and historical disasters.

SNAP Provides Essential Anti-Hunger Benefits

Fifty years ago President Kennedy proposed the establishment of the Food Stamp Program, now known nationally as SNAP to confront hunger and malnutrition in the United States. The program now serves approximately one in seven Americans.

In California, SNAP is referred to as CalFresh and it is our state's first line of defense against hunger. Despite the deep commitment and breadth of our state's emergency food bag and soup kitchen programs, there is no program with the reach of CalFresh. CalFresh benefit allotments are calculated based on household income, resources, expenses and size. The maximum monthly allotment in FY 2013 is \$194 for a single person and \$649 for a family of four.¹ Nationally, only 41 percent of households receive the maximum allotment and 23 percent of household receive less than half of the maximum allotment.² In all cases, CalFresh benefits are only expected to supplement the food budgets of participating households, that is, CalFresh recipients are expected to use other income or other food assistance to make up the difference in their food budget.

As highlighted in a report from the Institute of Medicine (IOM),³ SNAP recipients are less likely to be food-insecure than eligible non-recipients; in other words, the program meets the central goal to alleviate hunger. Controlling for other factors, research has also shown that SNAP participants are not more likely than eligible non-participants to be overweight or obese and that the program does not contribute to the current obesity crisis in the U.S.⁴ In fact, by both improving dietary intake and reducing food insecurity, participation in Federal nutrition programs plays a critical role in obesity prevention. For this reason, increasing participation in the Federal nutrition programs, including SNAP, is a childhood obesity prevention strategy recommended by the IOM and the White House Task Force on Childhood Obesity.⁵

A strong and effective SNAP is crucial for ending hunger and improving health in America. Research shows that SNAP plays a critical role in alleviating poverty and food insecurity and in improving dietary intake, weight outcomes, and health, especially among the nation's most vulnerable children.⁶

On February 7, 2014, the President signed H.R. 2642 Conference Report (P.L. 113-79), known as the Agricultural Act of 2014 and commonly referred to as "The Farm Bill." This bill enacted several provisions negatively impacting the Supplemental Nutrition Assistance Program (SNAP), known as CalFresh in California. In Fiscal Year 2015, CalFresh reached 4,418,000 California residents, or 11% of the

¹U.S. Department of Agriculture, Food and Nutrition Service. (2013b). *Supplemental Nutrition Assistance Program—Eligibility*. Available at: http://www.fns.usda.gov/snap/applicant_recipients/eligibility.htm.

²Strayer, M., Leftin, J., & Eslami, E. (2012). *Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2011*. Report No. SNAP-12-CHAR. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis.

³Consensus Report released January 17, 2013, "Supplemental Nutrition Assistance Program: Examining the Evidence to Determine Benefit Adequacy," available at <http://www.iom.edu/Reports/2013/Supplemental-Nutrition-Assistance-Program-Examining-the-Evidence-to-Define-Benefit-Adequacy.aspx>.

⁴Hofferth, S.L. & Curtin, S. (2005). *Poverty, food programs, and childhood obesity*. JOURNAL OF POLICY ANALYSIS AND MANAGEMENT, 24(4), 703-726, and Linz, P., Lee, M., & Bell, L. (2004). *Obesity, poverty, and participation in food assistance programs*. FAMILY PROGRAMS, FSP-04-PO. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation.

⁵Institute of Medicine, 2009; Institute of Medicine, 2011a; *White House Task Force on Childhood Obesity, 2010*. Reports found at: <http://www.iom.edu/Activities/Nutrition/SNAPadequacy.aspx> and <http://www.whitehouse.gov/the-press-office/childhood-obesity-task-force-unveils-action-plan-solving-problem-childhood-obesity->.

⁶"Long-Term Benefits of the Supplemental Nutrition Assistance Program," White House Council of Economic Advisors, December 2015, available at https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/SNAP_report_final_nonembargo.pdf and White House fact sheet, available at <https://www.whitehouse.gov/the-press-office/2015/12/08/fact-sheet-council-economic-advisers-releases-report-highlighting-new>.

state population (one in nine), and 78% of the families that received this essential anti-hunger benefit were families with children.⁷

More than 48.1 million Americans—15.3 million of them children—lived in households that struggled against hunger in 2014, according to USDA's data. The number of individuals in households that faced the deepest struggles with hunger—"very-low-food security"—was 5.5 percent in 2014.⁸ In California, where only 66% of those eligible for CalFresh receive it, food insecurity is high, with 13.5% of state residents experience hunger or food insecurity.⁹ Before the 2014 Farm Bill debate, a coalition led by Western Center on Law and Poverty called on Congress to use the act to address the unacceptable numbers of people experiencing hunger.¹⁰ Unfortunately, the 2012–2014 Farm Bill debate did not achieve this goal. Instead, while significant cuts were prevented, cuts (rather than a much needed expansion) were passed. The farm bill passed assumed \$8.6 billion in savings from SNAP, to be taken on top of the \$11 billion that took effect in November 2013, making families hungrier and more vulnerable to poor health.¹¹

With so many Americans already experiencing hunger, the resiliency of America's communities impacted by disaster is already compromised, making a strong the SNAP disaster response and D-SNAP program even more important.¹² While SNAP's entitlement structure allows it to respond quickly and effectively to changes in need, whether those are caused by economic downturns or disasters, the D-SNAP program is needed when the provisions offered through SNAP are not quick enough or sufficient to address a disaster that meets the standards required to receive a declaration from the President of the United States.

Our Comments to the Proposed Regulations

Disasters come in many forms. In California, the disasters we have experienced in the last decade have been as a result of fire, freeze and earthquakes. As the preamble to the proposed rules explains, the USDA has worked for decades with states and other partners to prevent hunger among disaster victims of disaster through SNAP and D-SNAP.

I. Support Retaining Agility of D-SNAP: Through D-SNAP procedures, FNS provides states with authority to get temporary SNAP benefits to disaster victims not already enrolled in SNAP and replacement and supplemental benefits to regular SNAP households affected by disaster. We appreciate that the D-SNAP framework retains agility for USDA response to the varied circumstances of each disaster and believe that this is one of the most important features of the proposed rule.

II. Mass Issuance Is Important Anti-Hunger Tool: The proposed rule preamble addresses mass issuance of automatic/replacement and supplemental benefits onto EBT cards in disaster areas. Replacement SNAP is a permanent feature of the program and all current recipients who have been displaced or impacted by an incidence (flood, power outage, fire, *etc.*) that has destroyed their food can apply for replacement Cal-Fresh after they have spent their monthly allocation (or a portion of it).¹³ As the preamble discusses, however, mass replacements generally may be in order in certain circumstances, when multiple SNAP households have experienced the same displacement or destruction of food. This mass replacement benefit is essential in responding to events that fall short of a disaster declaration, such as those experienced during the during the 12 month California electricity crisis of

⁷Center on Budget and Policy Priority, *SNAP State-by-State Fact Sheet*: http://www.cbpp.org/sites/default/files/atoms/files/snap_factsheet_california.pdf.

⁸More than 48.1 million Americans lived in households that were struggling against hunger in 2014 according to USDA's Economic Research Service. For the summary and full report on USDA's findings, go to http://ers.usda.gov/media/1896836/err194_summary.pdf and <http://ers.usda.gov/media/1896841/err194.pdf>.

⁹Food Research and Action Center *State-by-State Food Insecurity Report*: http://frac.org/pdf/2015_09_09_usda_food_insecurity_bystate_2012_2014.pdf.

¹⁰Letter of 175 California Organizations calling on the farm bill to strengthen SNAP: http://www.frac.org/pdf/FBStateLetter_CA.pdf.

¹¹These cuts also impacted the retail economy (according to the *Los Angeles Times*) and food banks have not been able to make up the loss in benefits (according to *USA TODAY*). SNAP cuts are job killers, too. The USDA-ERS estimates that for every billion in SNAP benefits cut, between 8,900 to 17,900 jobs are lost.

¹²According to the National Center for Disaster Response, Community resilience is generally defined as the ability to adapt to, withstand, or rapidly recover from a disaster or catastrophic event. Research suggests that communities have a greater capacity to withstand a disaster when its population is not suffering from deprivation of basic needs. More information on NCDR's description of the relationship between vulnerability and disaster recovery, go to: <http://ncdr.columbia.edu/research/recovery-resiliency/>.

¹³This is the California's form to apply for replacement CalFresh: <http://www.cdss.ca.gov/cdssweb/entres/forms/English/CF303.pdf>.

2000–2001. Mass replacements also allow administrators to respond more quickly in cases of significant disasters when a disaster declaration is pending. Mass replacement CalFresh was an important tool used in California’s 2015 fires.¹⁴ A mass replacement not only reduces likelihood of disaster victims experiencing hunger, it also reduces the administrative burden of SNAP caseworkers, many of whom are also impacted by a disaster directly or indirectly. We appreciate the work that USDA, states and the EBT stakeholders do to make SNAP mass issuance a reliable, targeted, efficient, and cost-effective method of getting the broadest relief to affected SNAP households in areas with demonstrated need.

III. Allowing for 30 Days to Prove Loss of Food: We strongly support the proposed rule in allowing 30 days (instead of 10) for SNAP households in disaster-declared areas to prove food loss for replacement benefit eligibility determination. The normal 10 day period provides too little time for many clients to learn about the right to prove food loss due to a misfortune and too little time for outreach workers and media to apprise them of the procedures to claim the loss. Additionally, we urge USDA to clarify that a power outage of 4 hours or more is sufficient not only for situations involving mass replacements (as referenced in the D–SNAP proposed rule preamble) but also is sufficient in individual cases of household misfortune.

IV. Workers Impacted by Disaster Should be Served: One of the most frustrating experiences in working with California’s disaster victims seeking D–SNAP over the past decade is having to tell people who have lost their jobs that they are not eligible for D–SNAP. This was especially the case in the 2007 San Diego Fire Storm,¹⁵ impacting many wealthy homes that employed low-wage earning gardeners, dry-cleaners, babysitters and other service professionals who lived in other areas, but were suddenly unemployed as a result of the fire and, because they were very-low-income, they were ineligible for UI benefits. It is well documented that disasters disrupt industries and local economic activity, thereby adversely impacting workers who reside outside the disaster area. We have recently learned, however, that some states have received D–SNAP approval for “households who resided or worked in these 12 counties on April 27, 2014, and who suffered disaster-related adverse effects from the severe storms and tornadoes were eligible for certification using D–SNAP criteria.”¹⁶ As such, we strongly support the proposed rule clarifying that states are allowed to extend D–SNAP eligibility to those who worked in the disaster area at the time of the disaster in addition to those who lived in the disaster area. We recommend that the Department improve the final rule in this area by requiring that a state that opts *not* to serve non-resident workers explain why it has made that decision. Doing so will inform states that serving this population is an option and encourage states to consider and document harm, or lack-thereof to people who do not reside in the disaster area but who have been economically harmed by the disaster.

V. Support Outreach Providers’ Role in Disaster Response: Outreach and application assisters are essential in connecting eligible people with benefits to which they are entitled. Our organizations have had significant experience in supporting application assisters in responding to disaster. During last year’s valley fires, CAFB helped to train and coordinate several application assisters from throughout the state travel to Lake County to support the D–SNAP outreach effort. CAFB supports food banks and outreach providers to plan for impending disasters.¹⁷ Western Center has successfully advocated for improved state disaster preparedness, including adding D–SNAP outreach in CalFresh outreach contract scopes of work.¹⁸ As such, we strongly support the proposed rule on D–SNAP requiring states to outline plans for D–SNAP outreach and believe that California offers a model for other states. While we are proud of the outreach partnerships our state rallied in response to recent fires, these efforts can be costly for all those involved and so we also encourage the Department to make additional Federal funds available to augment D–SNAP outreach reimbursement funds to support participation of

¹⁴ President Obama’s 2015 Major Disaster Declarations for *Lake* (https://www.gov.ca.gov/docs/Governor%27s_Letter_to_President_Valley_Fire.pdf) and *Calaveras* (https://www.gov.ca.gov/docs/Governor%27s_Letter_to_President_Butte_Fire.pdf) county fires.

¹⁵ https://en.wikipedia.org/wiki/2007_California_wildfires.

¹⁶ See information available at http://www.fns.usda.gov/sites/default/files/Response_to_SE-SW_Tornadoes.pdf.

¹⁷ <http://cafoodbanks.org/disaster-preparedness>.

¹⁸ <http://www.calfresh.ca.gov/PG2903.htm> It has been up for about a year now and from this site, one can access: Application for Disaster CalFresh; Notice of Approval/Denial for Disaster CalFresh; Replacement Affidavit/Authorization; California Association of Food Banks Emergency Food Distributions; Disaster CalFresh Regulations; and, D–SNAP State Training Webinar.]

community partners for increased disaster response capacity to provide information and application assistance in the wake of disasters.

VI. Final Rules Should Be More Responsive of Vulnerable Households:

Households with persons with disabilities are particularly vulnerable to food insecurity and to hardship following disaster. We support the proposed rule requiring state D-SNAP Plans to address accommodations for disaster victims with disabilities. The final rule also should recognize that additional populations may need special accommodations or services to access D-SNAP, including seniors, migrant workers, families with children (who will be without school lunches and/or WIC) and rural and urban populations that may lack transportation and/or communication (broadband) networks, especially following a disaster. Our experience suggests several important accommodations for these populations: (a) having sufficient application sites; (b) allowing for phone interviews, (c) preparing for multiple card issuance locations (or pre-printed cards that need only to be loaded with benefits); and, (d) ensuring that intake offices are open 7 days, including over holidays and weekends. Regarding our recommendation that the proposed rule should be improved by allowing alternatives to face-to-face interviews for D-SNAP, it is important to note that the regular SNAP rules recognize that a face-to-face interview may present a hardship to potential clients. We appreciate that for many years now the Department has worked with states to minimize the barriers to SNAP access that traditional face-to-face interviews pose. The Department allows alternatives such as telephone interviews broadly, and, for elderly persons and persons with disabilities with stable incomes, lifts the requirement for a recertification interview at all. Disaster victims often have lost homes, cars, and telephone and internet access. In the wake of a disaster, use public transportation and public roads may be restricted. For example, in the Northern California fires earlier this year, gas stations were closed and travel was restricted for weeks. The final D-SNAP rule should recognize the reality of limited transportation in most disasters and incorporate lessons learned from regular SNAP application and recertification procedures and provide for alternatives to face-to-face interviews to better serve those who are need of D-SNAP.

VII. Improving Retail Experience during Disaster Response: We support the proposed rule requiring state D-SNAP Plans to address communications with food retailers and to reinforce the ability of hot food waivers. The prepared food waivers were essential in recent fire disaster responses. This provision has been important for many disaster victims to obtain meals, often while they lack shelter or kitchen facilities to prepare food. Giving retailers timely and accurate information about D-SNAP operations, including information about any hot food waivers, bolsters the effectiveness of the commercial infrastructure that underlies SNAP benefit redemptions. Similarly, we support the proposed rule requiring state D-SNAP Plans to address Electronic Benefit Transfer (EBT) issuance. EBT offers a mainstream, efficient way to provide public benefits to consumers. Anticipating the steps needed by government and its partners to issue D-SNAP benefits and/or replacement and/or supplemental SNAP benefits electronically in the wake of disaster is a proper component of D-SNAP Plans.

VIII. D-SNAP Should Never Create Government Debt: The proposed rule properly prohibits states from collecting benefit over issuances out of D-SNAP benefits and also provides that payment of disaster expenses via credit card, not only those paid by cash or check, will count when determining D-SNAP disaster expenses.

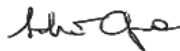
In closing, considering the great importance of SNAP and D-SNAP in preventing hunger and restoring the local economy following a disaster, we appreciate the proposed rules and believe that they will greatly increase the likelihood that United States residents hard hit by disaster will be resilient in the wake of the unthinkable.

Thank you for your service and for your consideration of our comments.

Sincerely,



JESSICA BARTHOLOW,
Policy Advocate,
Western Center on Law and Poverty,
Sacramento, CA;



ANDREW CHEYNE,
Director of Government Affairs,
California Association of Food Banks,
Oakland, CA.

September 14, 2020

ERIC WILLIAMS,
Food and Nutrition Service,
U.S. Department of Agriculture,
Alexandria, VA

Re: Notice of Agency Information Collection Activities—Best Practices in Disaster Supplemental Nutrition Assistance Program (D–SNAP) Operations and Planning—OMB Number 0584–NEW

Submitted via *regulations.gov*

Dear Mr. Williams:

On behalf of the Western Center on Law and Poverty, please accept this comment in response to the Notice of Agency Information Collection Activities: Best Practices in Disaster Supplemental Nutrition Assistance Program (D–SNAP) Operations and Planning.

About the Western Center on Law and Poverty

For over 5 decades, the Western Center on Law and Poverty (Western Center) has advocated on behalf of individuals with low incomes in every branch of California government—from the courts to the Legislature. Through the lens of economic and racial justice, we litigate, educate and advocate around health care, housing, and public benefits policies and administration. Western Center staff have decades of experience in working with legislators and state policymakers to improve SNAP, known as CalFresh in California. We have published countless advocate guides, chaired advisory committees, supported Federal and state legislation and, when necessary, filed and won litigation to protect the rights of SNAP recipients in California.

Western Center has also worked with Federal, state and local partners for over a decade to plan for and to administer D–SNAP, as called for and when approved. We have provided trainings,¹ crafted and helped to implement new policies,² served in the D–SNAP advisory workgroups and helped to draft the Disaster CalFresh Manual[.]³ It is with this experience that has brought us to submit these comments. Most recently, we have been working with the California Department of Social Services to prepare for D–SNAP implementation following the Presidential Declaration for Individual Assistance (FEMA 4558–DR) for Lake, Monterey, Napa, San Mateo, Santa Cruz, Solano, Sonoma, and Yolo Counties, which we hope will be approved.

SNAP is a Program Central to California’s Safety Net

Between January and March 2020, an average of 4.1 million Californians living in 2.2 million households received CalFresh benefits, with each individual receiving an average of \$123 monthly. Due to the COVID–19 Public Health Crisis and necessary shelter-in-place orders, these numbers increased to 4.8 million Californians in 2.6 million households by June 2020. On average, in California, each participant received an average of \$166 monthly in June 2020. The program is one of the most responsive to economic downturn caused by any reason, including natural disaster.⁴

D–SNAP Works to Address Hunger Following a Disaster

The Robert T. Stafford Disaster Relief and Emergency Assistance Act provides the Secretary of Agriculture with the authority to operate a D–SNAP when affected areas have received a Presidential major disaster declaration and when commercial channels of food distribution are available. The Food and Nutrition Act of 2008 provides the Secretary of Agriculture with the authority to establish temporary emergency standards of eligibility for households who are survivors of a disaster that disrupts commercial channels of food distribution after those channels have been restored. The United States Department of Agriculture (USDA) Food and Nutrition Services (FNS) have, on several occasions over the past decade, elected to approve the operation of D–SNAP under Stafford Act authority when affected areas have re-

¹ *Minimizing Hunger in a Disaster: Advocacy Timeline* (<http://www.cafoodbanks.org/sites/default/files/D%20SNAP%20Advocacy%20Timeline%20FINAL.pdf>) (February, 2018) *The Importance of Disaster SNAP: SNAP Responds When We Need It Most* (http://www.cafoodbanks.org/sites/default/files/Fact%20Sheet%20-%20D-SNAP_0.pdf) (February, 2018).

² <https://wclp.org/resources/implementing-ab-607-gloria-disaster-calfresh-calworks-feb-2018/>.

³ https://www.cdss.ca.gov/Portals/9/ACL/2018/18-125_ES.pdf.

⁴ <https://www.ppic.org/publication/the-cal-fresh-food-assistance-program/>.

ceived a Presidential disaster declaration for individual assistance. In California, this program is known as D-CalFresh (DCF).⁵

With a significant number of Californians already experiencing hunger or food insecurity, the resiliency of our communities impacted by disaster is already compromised. This makes the work of ensuring the SNAP disaster response and D-SNAP⁶ program are swift acting and robust is even more important.⁷ While SNAP's entitlement structure allows it to respond quickly and effectively to changes in need, whether those are caused by economic downturns or natural disasters, the D-SNAP program is needed when the provisions offered through SNAP are not quick enough or sufficient to address a disaster that meets the standards required to receive a declaration from the President of the United States to support individual assistance. It is for this reason that we are very proud of the track-record of cooperation and collaboration that California and the USDA FNS have had on securing approval and implementing this important benefit throughout the years. Still, some improvements to the program could make the program even more effective and its reach even further into impacted communities.

D-SNAP Should Be More Accessible Once Approved

Our experience suggests several important accommodations for disaster victims must be considered when designing a D-SNAP program. Disaster victims often have lost homes, cars, and telephone and internet access. In the wake of a disaster, use public transportation and public roads may be restricted. For example, in the Northern California fires that have ravaged our communities over the past several years, gas stations were closed and travel was restricted for weeks. We believe that ensuring multiple locations where can apply for D-SNAP, complete their interview and secure their D-SNAP EBT card for the entire period (including weekends and holidays) which the application period has been approved should be a priority in disaster responses. This access should also include allowing for a telephone interview, even when an entire county has been evacuated⁸ or for people who cannot physically go into any of the available locations. The lack of clear and consistent guidance from the USDA to ensure telephone and computer (out-of-office) application and interview for D-SNAP have especially frustrated our ability to plan for D-SNAP implementation during the COVID-19 Public Health Crisis. While state law and guidance requires CDSS to maintain mobile EBT issuance stations and to make these stations available to the county upon their request, this is not sufficient to meet the civil rights of people with disabilities during a disaster and the USDA FNS should remedy that by allowing online and over the phone processes for D-SNAP across the board.

Prepared Food Availability in Our Disaster Response

The prepared food waivers were essential in recent California fire disaster responses. This provision has been important for many disaster victims to obtain meals, often while they lack shelter or kitchen facilities to prepare food. Giving retailers timely and accurate information about D-SNAP operations, including information about any prepared food waivers, bolsters the effectiveness of the commercial infrastructure that underlies SNAP benefit redemptions. California consistently requests a hot-meal waiver in all D-SNAP application materials and the USDA proposed rule also suggested this as a component to state disaster planning, but the USDA should go further to make this provision automatically accessible to any state, without the rigmarole of preparing, submitting and getting approval of a waiver.

Continue to Reinforce Disaster Preparation and Disaster Recovery for Poorest Californians

Disasters come in many forms. In California, the disasters we have experienced in the last decade have been as a result of fire, freeze, drought, rain and earthquakes. With the passage of state law, California social services administrators are

⁵ <http://www.calfresh.ca.gov/pg2903.htm>.

⁶ https://www.fns.usda.gov/sites/default/files/D-SNAP_Disaster.pdf and https://www.fns.usda.gov/sites/default/files/D-SNAP_handbook_0.pdf.

⁷ According to the National Center for Disaster Response, Community resilience is generally defined as the ability to adapt to, withstand, or rapidly recover from a disaster or catastrophic event. Research suggests that communities have a greater capacity to withstand a disaster when its population is not suffering from deprivation of basic needs. More information on NCDR's description of the relationship: <http://ncdr.columbia.edu/research/recovery-resiliency/>.

⁸ This is a flaw in the Federal guidance. Western Center and the California Association of Food Banks submitted comments to the draft regulations calling for them to amend this provision of the regulations, but the rules have not been finalized.

now required by law to participate in planning for disaster, adequately represent the needs for individual assistance in Federal disaster requests, and implement Federal disaster aid if granted. We know these efforts will prevent hunger and hardship and contribute to the restoring local economies following a disaster. We suggest similar standards be set across the board nationally.

Goals for the Information Collection and Study

The notice provides examples of how it will seek input from community stakeholders, we advise that on the list of relevant stakeholders, you include legal services, SNAP EBT processors, national, state and local anti-hunger advocates, SNAP application assisters, SNAP nutrition educators, SNAP Employment and Training personnel, people with lived experience with hunger and poverty, disaster survivors, and representatives of particular population groups (such as older Americans, people with disabilities, rural residents, Tribal members, and various racial and ethnic group members and representatives).

Using Technology to Improve Access and Operations

As we mention above, we believe that people should have access to technologies that are already at work helping to streamline SNAP operations overall. For decades now, automatic mass SNAP replacement benefits have been transmitted quickly and efficiently onto EBT cards for existing SNAP participants who reside in impacted areas. There is no reason why these technologies cannot be used to ensure access to D-SNAP. In fact, there is no proven way to ensure the civil rights protections of D-SNAP eligible Americans without doing so. These include the use of online, telephone, texting and other mobile technology platforms in D-SNAP. Florida and Louisiana have been granted authority to conduct D-SNAP interviews by phone rather than in person (for Hurricane Irma and Michael in Florida and, during COVID-19, for Hurricane Laura in Louisiana). We believe that this authority should be available in all D-SNAP scenarios.

D-SNAP is an Essential Program That Can Be Improved

We appreciate the opportunity to submit these comments to the Department and are grateful that leaders are seeking to build upon the considerable experience that it and partner stakeholders have in preventing hunger both during and after a disaster. We hope that we can be of further assistance during the information collection process and will continue to consider ways to adapt D-SNAP tools to new scenarios, including to help in the COVID-19 Public Health Emergency and future pandemics or climate crisis situations, as we hope the Department will too.

Thank you for the opportunity to comment on the D-SNAP information collection. Please do not hesitate to contact me at the email or phone number below.

Sincerely,

JESSICA BARTHLOW,
Policy Advocate,
Western Center on Law and Poverty.

**A 2022 REVIEW OF THE FARM BILL
(STAKEHOLDER PERSPECTIVES ON SNAP)**

WEDNESDAY, JUNE 8, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON NUTRITION, OVERSIGHT, AND DEPARTMENT
OPERATIONS,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:17 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Jahana Hayes [Chairwoman of the Subcommittee] presiding.

Members present: Representatives Hayes, McGovern, Adams, Brown, Rush, Sablan, Carbajal, Lawson, Kuster, Panetta, Bacon, DesJarlais, Baird, Cammack, Thompson (*ex officio*), and Mann.

Staff present: Caitlin Balagula, Lyron Blum-Evitts, Lisa Shelton, Katherine Stewart, Caleb Crosswhite, Jennifer Tiller, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. JAHANA HAYES, A
REPRESENTATIVE IN CONGRESS FROM CONNECTICUT**

The CHAIRWOMAN. This hearing of the Subcommittee on Nutrition, Oversight, and Department Operations entitled, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on SNAP*, will come to order.

Welcome, and thank you for joining us here today. After brief opening remarks, Members will receive testimony from our witnesses, and then the hearing will be open to questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today.

And now I will start with my opening statement.

Good morning, and welcome to today's hearing, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on SNAP*. This hearing is one in a series of hearings to review the 2018 Farm Bill and prepare for the 2023 Farm Bill.

Today, we will receive stakeholder input on the Supplemental Nutrition Assistance Program, or SNAP, the 2018 Farm Bill provisions that impact the program, and how the COVID-19 pandemic has affected SNAP operations and what we can do in the upcoming farm bill to build on the decades of success of the SNAP program in combating hunger and food insecurity in America.

Forty-one million Americans currently participate in SNAP. Each of their stories are unique, and every person faces different chal-

lenges, so it is critically important that we understand that as part of our decision-making process. The positive impacts of SNAP have been particularly felt during the pandemic and are continuing to grow as participants receive more adequate benefits as a result of the 2021 Thrifty Food Plan reevaluation, which I know we will hear more about today from our witnesses.

In 2020, SNAP is estimated to have lifted 2.9 million Americans out of poverty. It provided economic stimulus to households in every community across the nation, supporting local grocery stores, farmers, distributors, and creating jobs. It is clear that SNAP works, and it works for our entire economy from farmers to consumers. Today, I am interested in hearing the ways we can improve upon the SNAP program and help make the program more equitable and accessible to those in need.

SNAP is also a highly responsive means-tested program, which serves as a stabilizer in times of economic downturn. Participation rates are high right now because of the pandemic. However, we are already seeing participation decrease as Americans begin to recover. In September 2020, SNAP participation peaked at 43 million. As of February of this year, participation has dropped by nearly two million people. That is how SNAP works. It responds in times of need.

Similarly, our farm support programs spend more when commodity prices are low. Our farm bill programs are designed that way because it just makes sense, and spending on both SNAP and farm programs fluctuates as a result.

Increased SNAP costs are also due to continued COVID-19 relief, which is tied to the end of the public health emergency, inflation, and the Thrifty Food Plan reevaluation, which assured that SNAP provided recipients with adequate support.

Finally, in Fiscal Year 2021, one in eight Americans or 13 percent of our country participated in SNAP. That means one in eight Americans were not sure they would be able to put food on their tables, one in eight Americans. But SNAP offered stability and assurance.

Thank you again to the Members and witnesses who are joining us here today, as well as those who have tuned in and are listening. I look forward to hearing more today about how we can improve outcomes for Americans facing food insecurity.

[The prepared statement of Mrs. Hayes follows:]

PREPARED STATEMENT OF HON. JAHANA HAYES, A REPRESENTATIVE IN CONGRESS
FROM CONNECTICUT

Good morning and welcome to today's hearing, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on SNAP*. This hearing is one in a series of hearings we are hosting to review the 2018 Farm Bill and prepare for the 2023 Farm Bill.

Today we will receive stakeholder input on the Supplemental Nutrition Assistance Program, or SNAP, the 2018 Farm Bill provisions that impact the program, how the COVID-19 pandemic has affected SNAP operations and what we can do in the upcoming farm bill to build on the decades of success of the SNAP program in combating hunger and food insecurity in America.

41 million Americans currently participate in SNAP. Each of their stories are unique and every person faces different challenges, so it is important that we understand that as part of our decision-making process.

The positive impacts of SNAP have been particularly felt during the pandemic and are continuing to grow as participants receive more adequate benefits as a re-

sult of the 2021 Thrifty Food Plan reevaluation, which I know we will hear more about from our witnesses.

In 2020, SNAP is estimated to have lifted 2.9 million Americans out of poverty. It provided economic stimulus to households in every community across the nation—supporting local grocery stores, farmers, distributors, and jobs.

It is clear that SNAP works, and it works for our entire economy, from farmer to consumer. Today, I am interested in hearing the ways we can improve SNAP and help make the program more equitable and accessible to those in need.

SNAP is also a highly responsive, means-tested program which serves as a stabilizer in times of economic downturn. Participation rates are high right now because of the pandemic. However, we are already seeing participation decrease as Americans begin to recover.

In September 2020, SNAP participation peaked at 43 million. As of February of this year, participation has dropped by nearly two million people. That is how SNAP works. It responds in times of need.

Similarly, our farm support programs spend more when commodity prices are low. Our farm bill programs are designed that way because it makes sense, and spending on both SNAP and farm programs fluctuates as a result.

Increased SNAP costs are also due to continued COVID-19 relief, which is tied to the end of the Public Health Emergency, inflation, and the Thrifty Food Plan reevaluation, which ensured that SNAP provides recipients with adequate support.

Finally, in Fiscal Year 2021, one in eight Americans—or 13 percent of our country—participated in SNAP. That means one in eight Americans were not sure if they would be able to put food on their tables, but SNAP offered stability and assurance.

Thank you again to the Members and witnesses joining us today as well as those who have tuned in and are listening.

I look forward to hearing more today about how we can improve outcomes for Americans facing food insecurity.

I'd now like to welcome the distinguished Ranking Member, the gentleman from Nebraska, Mr. Bacon, for any opening remarks he would like to give.

The CHAIRWOMAN. I would now like to welcome the distinguished Ranking Member, the gentleman from Nebraska, Mr. Bacon, for any opening remarks he would like to give and just to thank him for his help and just being a measured voice in these conversations. Mr. Bacon.

**OPENING STATEMENT OF HON. DON BACON, A
REPRESENTATIVE IN CONGRESS FROM NEBRASKA**

Mr. BACON. Well, thank you, Madam Chairwoman. And thank you to our witnesses for sharing your time, your expertise with this Subcommittee.

I was a freshman throughout the drafting and finalizing of the 2018 Farm Bill. To say the process is daunting and the work tremendous is simply an understatement, and we have a lot of work to do. We know that. Policy is tough, and it is exacerbated here by the reach and role of SNAP, a huge program, a program that is currently assisting more than 42 million people at a cost of \$9 billion per month.

This is why these hearings are so important, so we as policy-makers can understand what is working and what is not and how we can improve. And the latter is equally as important as the former. I know that SNAP helps people who are in dire straits, but I also know the fuzzy interpretation of the law and regulatory loopholes lead to questions on the integrity and strength of the program, which I hope we can discuss today and make improvements.

And equally important to today's conversation is an honest discussion about nutrition and health. We have a real opportunity to promote the consumption of healthy foods. What we are doing now is not working. Employment, healthcare costs, military readiness,

and general longevity are highly dependent on the foods we consume. U.S. stakeholders, together with policymakers, the Department, and other community organizations and local governments and recipients themselves are uniquely positioned to improve the health outcomes of millions of people. So, today, let's be bold. Let's rethink consumer education. Let's rethink how we can engage with recipients. And let's rethink how we use the billions of dollars attached to this program for better outcomes.

So with that, Madam Chairwoman, I am glad this hearing is finally taking place, and I look forward to the testimony and my colleagues' questions. With that, I yield back.

The CHAIRWOMAN. Thank you, Mr. Bacon. Let's be bold. I think we are on the same page.

I now recognize Ranking Member Thompson for any opening comments you would like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Madam Chairwoman, thank you so much. And thank you to each of our witnesses for your time and your testimony today.

When the full Committee hosted the Administration several weeks ago, I mentioned my frustration with colleagues who have drawn a line in the sand about future title IV policymaking. Since then, the Congressional Budget Office released its baseline assumptions, which includes \$1.1 trillion, 10 year score related to SNAP. So, I am doubling down today. There are things we can improve and probably even a few policies we can upend. We do not need to spend for the sake of spending or because it makes us feel better. If there is no impact or the impact is so minimal, how can we defend it?

Like many of you, I have spent my life serving people, and sometimes our best intentions cause irreparable hardship for families that we aim to help. Spending more money for the sake of spending it does not necessarily mean we are achieving our desired results or outcomes. We have to be prescriptive in our investments to be successful.

And, based on testimony that we will hear today, I also want to reiterate my concern that pandemic aid is morphing into endemic aid and that various issues caused by this Administration's own actions and at times inaction have stakeholders calling for permanent extensions. To say I disagree with those calls is an understatement. Let's have an honest discussion about where we have been and where we can go while keeping in mind the overarching goal of SNAP, to provide for improved levels of nutrition amongst low-income families, families that are struggling with financial distress.

And with that, thank you so much. I am looking forward to the hearing, and I yield back.

The CHAIRWOMAN. Thank you, Ranking Member Thompson, and thank you so much for being here today.

The chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony and to ensure there is ample time for questions.

I am pleased to welcome a distinguished panel of witnesses to our hearing today. Our witnesses bring a wide range of experience and expertise, and I thank you all for joining us. Our first witness today is joining us virtually, Mr. Daniel Giacomi, the SNAP program administrator for the State of Connecticut, Department of Social Services. He leads the day-to-day operations of the SNAP policy team and conducts oversight over the program in the State of Connecticut. This program helps over 217,000 households.

Our second witness is Mr. Mike Beal, the Chief Financial Officer of Balls Food Stores. Today, he is testifying on behalf of the National Grocers Association, the only trade association dedicated to the needs of independent, community-focused grocery retailers.

Our third witness is Mrs. Ty Jones Cox, the Vice President of Food Assistance Policy at the Center on Budget and Policy Priorities. In her role, she focuses on improving the effectiveness of the major Federal nutrition programs such as SNAP for low-income and middle-class families.

I would like to welcome all of our witnesses here today. We will now proceed to hearing your testimony. You will each have 5 minutes. The timer should be visible to you and will count down to zero, at which point your time has expired. We will begin with Mr. Giacomi.

Mr. Giacomi, when you are ready, please unmute yourself and begin.

Mr. GIACOMI. Thank you, and good morning, Chairwoman Hayes, Ranking Members Bacon and Thompson, and distinguished Members of the Subcommittee. As the Chairwoman said, my name is Dan Giacomi, and I am the SNAP program administration manager for the Connecticut Department of Social Services. I am honored to appear before you—

The CHAIRWOMAN. I am sorry, Mr. Giacomi, can you hold for a second?

Mr. GIACOMI. Sure.

The CHAIRWOMAN. I am not sure what is happening.

Okay. In the interest of time, I will go to Mr. Beal. We will have you begin so that we can work on the technical, and we will have Mr. Giacomi come up next.

Mr. Beal, if you don't mind if you could begin, that would be great.

STATEMENT OF MICHAEL J. BEAL, J.D., CHIEF FINANCIAL OFFICER, BALLS FOOD STORES, KANSAS CITY, KS; ON BEHALF OF NATIONAL GROCERS ASSOCIATION

Mr. BEAL. Sure. Good morning, Chairwoman Hayes, Ranking Member Bacon, and Members of the Nutrition, Oversight, and Department Operations Subcommittee. My name is Mike Beal, and I am currently the Chief Financial Officer of Balls Food Stores. Balls Food Stores currently owns and operates 26 retail grocery stores in the greater Kansas City, Kansas, and Missouri metropolitan area. We operate primarily under the Price Chopper and Hen House banners but have other stores as well. It is an honor and a privilege to be with you here today.

I am testifying on behalf of the National Grocers Association, the trade association representing the independent grocery stores

across this country. Balls Food Stores is a locally owned, third-generation, family-owned company started by Mollie and Sidney Ball in 1923. Our stores are full-service supermarkets and have accepted SNAP as a form of tender essentially since each location opened.

We make a point of doing substantial business with about 150 local family farmers located within 200 miles of Kansas City and have been doing so for more than 15 years. Independent grocers create markets for smaller producers, adding to the partnerships across our communities. My purpose today is to share with you the independent grocer's perspective on the value of SNAP and the importance of continued support of this program.

In 2020, SNAP was responsible for nearly 200,000 U.S. grocery industry jobs, earning wages totaling more than \$6.7 billion. SNAP is a shining example of a public-private partnership that builds strong communities. SNAP not only works as it is intended, but it also features one of the lowest error rates of any Federal program in existence. Independent community grocers are the key private partners with the Federal Government to administer SNAP, and I can attest that the program is critical to the health of local communities.

If it were not for SNAP, many local grocery stores would simply not exist in areas that need them most. Numerous urban and rural areas throughout the country are home to high concentrations of SNAP participants who rely on local grocery stores to access healthy and affordable foods. In many small towns, the local independent grocer is the only store in town that provides an anchor to the community.

NGA supports continued access to SNAP and expanding access to include online purchasing. While 47 states have launched SNAP online purchasing, independent retailers face significant barriers offering the program to consumers. NGA supports expanding online SNAP purchasing in all states and providing resources to develop a secure, easy-to-use online and app-based portal for EBT redemption to support smaller retailers. Establishing a system to accept online SNAP payments is a lengthy and expensive process requiring specific point-of-sale technology and website functions. Additionally, we support the creation of a USDA Technical Assistance Center to facilitate online purchasing and the use of a portal for smaller retailers, direct-to-consumer farmers, and farmers' markets. We ask for the Committee's support to streamline the difficult process that is hindering independent supermarkets from enabling SNAP for online grocery purchases.

In addition to increasing access, NGA supports increasing nutritional incentives to use SNAP benefits to purchase a variety of foods, including fruits and vegetables. We strongly believe this is a better solution than attempting to impose restrictions on choice. The dietary habits of SNAP and non-SNAP customers have been shown to be identical by the USDA. Consequently, restricting choice will not advance important public health goals. SNAP choice restrictions would require the Federal Government to identify, evaluate, and track the nutritional profile of the hundreds of thousands of foods that are available in today's grocery stores. It is far better to provide incentives such as the Gus Schumacher Nutritional Incentive Program, otherwise known as GusNIP, and the

Healthy Food Financing Initiative. Empowering consumers to purchase healthy fruits and vegetables is a much more successful long-term strategy to encouraging healthy eating than allowing the government to decide which food items a SNAP consumer may purchase.

NGA supports reducing barriers for retailers to participate in the nutrition incentive programs. The main barrier that retailers often run into when trying to participate in SNAP incentives is technical challenges to developing a point-of-sale system, or a POS, that automatically triggers a discount on produce based on EBT payment. This issue has actually prevented many retailers from even pursuing GusNIP projects. We suggest that these additional benefits be provided directly to EBT cards to simplify administration.

The final issue I would like to mention is operational fees. NGA supports the prohibition on the EBT processing fees in section 4006(d) [of the 2018 Farm Bill] and urges its extension. We believe this provision will prevent state EBT processors from imposing excessive fees and strengthen the ban on interchange fees. We hope that section 4006(d) can serve as a solution to restore competition to the contracting process so that more reliable firms have a shot at state EBT processing contracts.

In conclusion, we want to maintain our strong existing private-public partnership with the SNAP program that continues to serve our rural and urban customers. We hope to improve access to SNAP, including online purchasing, support customers in making healthy purchasing decisions, and reduce the administrative burden and fees on participating retailers.

Thank you for the opportunity to discuss these important issues today. I look forward to your questions.

[The prepared statement of Mr. Beal follows:]

PREPARED STATEMENT OF MICHAEL J. BEAL, J.D., CHIEF FINANCIAL OFFICER, BALLS FOOD STORES, KANSAS CITY, KS; ON BEHALF OF NATIONAL GROCERS ASSOCIATION

Good morning, Chairwoman Hayes, Ranking Member Bacon, and Members of the Nutrition, Oversight, and Department Operations Subcommittee. My name is Mike Beal, and I currently am the Chief Financial Officer of Balls Food Stores. I also spent 6 years as our first Chief Operating Officer. Balls Food Stores currently owns and operates 26 retail grocery stores in the greater Kansas City, Kansas and Missouri metropolitan area. We operate primarily under the Price Chopper and Hen House banners, but have other stores as well. It is an honor and a privilege to be here with you today.

Balls Food Stores is a locally-owned, third generation, family owned company started by Mollie and Sidney Ball in 1923. Our company is currently led by David Ball, who follows his father, Fred Ball, a person who was known nationally in the grocery industry for his innovation, character and charity to our community. Our stores are all full-service supermarkets and have accepted SNAP as a form of tender essentially since each location opened.

SNAP is a very important program for Balls Food Stores. Six of our stores have a high percentage of SNAP customers. Last year we opened a new store in an area that was previously described as a food desert, and the people who use it are very proud to have it available to them. We relied on a dependable SNAP program when making our investment choice and believe other independent grocers should be able to do the same.

We also make a point of doing substantial business with about 150 local farmers, and have been doing so for more than 15 years. Independent grocers create markets for smaller producers, adding to the partnerships across our communities.

I am very proud to be here on behalf of the National Grocers Association. NGA is the only national trade association dedicated solely to the needs of independent, community-focused grocery retailers and operators. NGA represents the 21,000 inde-

pendent community grocers and the wholesalers that service them. Independent community grocers account for 33 percent of all grocery sales, exceeding \$250 billion, and more than one million American jobs. We are inherently tied to the strength and vitality of the markets we serve—at the heart of local communities and the U.S. economy. Having often been in the business for generations, independent grocers are dedicated to their customers, associates, and communities.

Overview

My purpose today is to share with you the independent grocer's perspective on the value of SNAP and the importance of continued support for the program. In 2020, SNAP was responsible for nearly 200,000 U.S. grocery industry jobs earning wages totaling more than \$6.7 billion.

SNAP is a shining example of a public-private partnership. SNAP not only works as it is intended but it also features one of the lowest error rates of any Federal program in existence. Independent community grocers are the key private partners with the Federal Government to administer SNAP and I can attest that the program is critical to the health of local communities.

If it were not for SNAP, many grocery stores would simply not exist in areas that need them most. Numerous rural areas throughout the country are home to high concentrations of SNAP participants who rely on local grocery stores to access healthy and affordable foods. In many small towns, the local independent grocer is the only store in town and provides an anchor to the community.

SNAP is very important in rural areas. An Economic Research Service report released last November found that SNAP generated larger relative impacts in the rural economy than in the urban economy. Household expenditures of SNAP benefits annually increased rural economic output by 1.25 percent and rural employment by 1.18 percent. For the urban economy, SNAP benefits increased economic output by 0.53 percent and employment by 0.50 percent. SNAP has a positive economic impact on local economies. For every dollar spent locally in the SNAP program, \$1.80 in positive economic benefit is realized. This helps keep local economies stronger and recover more quickly from economic downturns. It also supports local jobs.

SNAP was a crucial lifeline during the pandemic. The additional benefits provided to recipients help them get needed foods in a variety of ways. Many did so at traditional grocery stores. Others took advantage of the growing ability to redeem benefits with online purchases. NGA supports continued access to SNAP for needy, hungry Americans.

Online Purchasing

While 47 states have launched SNAP online purchasing, independent retailers face significant barriers offering the program to customers. Establishing a system to accept online SNAP payments is a lengthy and expensive process, requiring certain point-of-sale technology and website functions. Additionally, the system requires USDA approval and must go through a testing process.

NGA strongly supports legislative proposals to improve online SNAP programs advanced by this Committee as part of the reconciliation bill and those contained in H.R. 1413 and S. 313, the Expanding SNAP Options Act. In particular, we support efforts to require the Secretary of Agriculture to implement online SNAP purchasing in all states. We also support providing resources to develop and maintain a secure, easy-to-use online and app-based portal for EBT redemption to support smaller retailers in offering products for online SNAP purchasing. And we support the creation of a USDA Technical Assistance Center to facilitate online purchasing and use of the portal for smaller retailers, direct-to-consumer farmers and farmers' markets. We also support this USDA Online SNAP TA Center sharing accurate, accessible information with the public about which local vendors participate in SNAP online purchasing.

It is important for the Committee to recognize the challenges that independent grocers face in accessing online systems. Independent grocers wish to offer this service to their customers, and many have applied to FNS to participate. However, barriers to participation include technical challenges, financial constraints to launch and continuously operate the program, and a lengthy application and approval process.

For many SNAP participants, the result is that the only options to use their benefits online are Amazon and Walmart. Yet, according to USDA Economic Research Service (ERS), independent grocers play an important role in helping to ensure food access for consumers, particularly in low-income and rural areas. ERS found that independent grocers outnumber chain grocery stores in rural areas and operate at higher rates in counties with a large share of Black and Hispanic citizens.

NGA has had to expend significant effort and resources helping our members through the online purchasing program set up because of limited help from the government. NGA has developed a “SNAP Online Purchasing Toolkit” that outlines the steps retailers may take to accept SNAP Electronic Benefit Transfer (EBT) payments online. The purpose of the toolkit is to provide guidance to independent supermarket retailers in adding SNAP online purchasing as a payment they can support.

We ask for the Committee’s support to streamline the difficult process that is hindering independent supermarkets from enabling SNAP for online grocery purchases so that we may continue to furnish essential goods to the members of our communities most in need.

SNAP Incentives

NGA supports increasing incentives for the use of SNAP benefits for the purchase of a variety of foods, including fruits and vegetables, a better solution in our view than attempting to impose restrictions on choice. The dietary habits of SNAP and non-SNAP customers have been shown to be nearly identical by USDA. Consequently, we do not believe that restricting choice will advance important public health goals.

Additionally, SNAP choice restrictions would require the Federal Government to identify, evaluate and track the nutritional profile of the thousands of foods that are available in today’s grocery stores, resulting in a complicated “food code.”

Currently no clear standard exists in the Federal Government for defining foods as good or bad, healthy or not healthy. With more than 650,000 food and beverage products on the market today and more than 20,000 introduced each year, creating those standards would be difficult, if not impossible. Defining foods as “in” or “out” means the government would pick winners and losers on grocery shelves and in grocery carts, increasing their influence over private enterprise and making decisions about what Americans can buy. According to USDA, establishing the nutritional profile of every food available would be a substantial undertaking. This expanded bureaucracy would mean increased, not decreased, administrative costs, without, we believe, any meaningful benefit for SNAP recipients.

Managing a SNAP eligible foods list would be a difficult task that would have to be staffed, maintained and communicated to retailers, customers, and manufacturers on a real-time basis. NGA members typically operate on a one to two percent profit margin, so the added cost of such a policy would be extremely difficult for supermarkets that serve a low-income population. The added cost to the retailer and inevitable stigma it would create for our SNAP customers would cause many of NGA’s members to drop out of the SNAP program entirely.

It is far better to provide incentives such as the Gus Schumacher Nutrition Incentive Program (GusNIP) included in prior farm bills, as well as the Healthy Food Financing Initiative. Empowering consumers to purchase healthy fruits and vegetables prevents stigma and is a much more successful long-term strategy to encouraging healthy eating than allowing the government to decide which food items a SNAP consumer may purchase.

Let me point out that the main barrier that retailers often run into is that it is technically challenging to develop a point of sale system (POS) system that automatically triggers a discount on produce based on the EBT payment tender that SNAP consumers use to purchase items using their monthly benefits. This issue has actually prevented many retailers from even pursuing GusNIP projects since it becomes so technically difficult to set up a program at the register. There is an immense need for a national Point of Sale (POS) solution for GusNIP, which will allow the program to expand and become scalable nationwide and get healthy foods into consumers’ hands. We also suggest that these additional benefits be provided directly to EBT cards to simplify administration.

NGA strongly supports the USDA’s recent announcement to provide \$25 million to support SNAP technology improvements to modernize the delivery of nutrition incentive programs. These improvements will provide certainty for businesses that want to ensure their communities have access to nutrition incentives.

Thrifty Food Plan

NGA applauded USDA’s announcement to permanently increase monthly SNAP benefits by 27% beginning Oct. 1, 2021. The increase was required by the 2018 Farm Bill’s provision to evaluate and update the Thrifty Food Plan (or TFP) by 2022. This is the first time that TFP has been updated with a major change since 1975. This benefit adjustment is overdue, and comes at a time when most needed.

Operational Fees

Two of the most impactful payments trends for grocery and other retail industries have, unfortunately, led to more costs for merchants: the growth in debit card usage and a rise in card-not-present transactions. And with the costs of card acceptance growing, we urge regulators and Congress to renew your interest in identifying the bad actors that continue to game the system and leave merchants holding the bag. Independent grocers operate on very thin margins. While we all want to make purchasing as convenient as possible, any fee that increases costs to grocers risks being passed on to consumers in the form of higher prices.

NGA supports the prohibition on EBT processing fees in Sec. 4006(d), and urges its extension. We believe this provision will prevent state EBT processors from imposing excessive fees and strengthen the ban on interchange fees. Additionally, EBT outages damage retailers' ability to sell food to low-income SNAP customers, who are impacted the most during outage scenarios. Little evidence suggests that state EBT processors have taken the appropriate steps to resolve this problem and outages are only becoming more and more frequent. We hope that Section 4006(d) can serve as a solution to restore competition to the contracting process so that more reliable firms have a shot at state EBT processing contracts.

In conclusion, we want to work to maintain our strong existing public-private partnership with the SNAP program and continue to serve our rural and urban customers. We hope to improve online purchasing and do as much as possible to provide incentives for consumers to make better purchasing decisions. We want to maintain benefit levels as much as possible. And we would like to provide responsible control of operational fees in order to make sure even more retailers are able to provide services.

We commend Congress for recent efforts to support a White House Conference on Food, Nutrition, Hunger, and Health. NGA plans to participate in this conference and we expect to support these SNAP reform proposals as part of our recommendations for the conference.

[Madam Chairwoman,] you have the special opportunity to serve on both this Committee as well as the Education and Labor Committee with jurisdiction over the child nutrition programs. We all know that a good breakfast is the best way to start the day, and that a good evening meal can be a reward for a day well spent. Let us do all that we can to allow as many people as possible to share in these blessings.

The CHAIRWOMAN. Thank you so much. We will now go virtually to Mr. Giacomi. If you are ready, please begin.

STATEMENT OF DANIEL R. GIACOMI, SOCIAL SERVICES PROGRAM ADMINISTRATION MANAGER, CONNECTICUT DEPARTMENT OF SOCIAL SERVICES, HARTFORD, CT

Mr. GIACOMI. Good morning, Chairwoman Hayes, Ranking Members Bacon and Thompson, and distinguished Members of the Subcommittee. My name is Dan Giacomi, and I am the SNAP program administration manager for the Connecticut Department of Social Services. I am honored to appear before you today to offer testimony concerning this critical and successful program utilized by millions of Americans each month.

In Connecticut, we currently provide SNAP assistance monthly to more than one in ten residents residing in all 169 towns. Through this, we see that SNAP significantly reduces food insecurity in our state and is one of the most effective tools at our disposal to boost the food industry and broader economy quickly and efficiently, especially in times of economic downturn. We also see how SNAP improves health outcomes and supports individuals in all aspects of life by providing essential nutrition and supports to its recipients.

First, we would like to commend Congress for the actions taken in the 2018 Farm Bill that gave Connecticut the tools we so critically needed to meet the unprecedented and unexpected challenges we have faced in recent years. In addition, the temporary flexibili-

ties Congress enacted to increase SNAP benefits and adjust administrative rules early in the public health emergency meant that we could preserve access to meaningful food assistance for families while operating under the social and economic disruptions experienced early in the pandemic. We firmly believe that the actions Congress took were fundamental to SNAP being one of the true success stories of our country's pandemic response.

Food insecurity in Connecticut, like many states, rose significantly as a result of the COVID-19 pandemic. Results from a report published in September 2021 by our partners at Connecticut Foodshare showed an overall 31 percent increase in food insecurity 1 year into the pandemic in our state.

As you look ahead to the next reauthorization of the farm bill, our experiences administering the SNAP program both during the 2018/2019 government shutdown and the subsequent pandemic have demonstrated the value and importance of program innovations, some of which I believe should be made permanent, but has also revealed additional steps that could be taken to strengthen the program in the future, making it more resilient in times of greater need and better able to include groups that have long been overlooked. Significant improvements can and should be considered in areas that would foster innovation, streamline service delivery, and simplify the administration of the program, as well as ensure its integrity and stability.

While not a comprehensive list, I will briefly touch on areas in which I believe this Committee and Congress should consider during the reauthorization. First and foremost, it is critical that we preserve access to broad-based categorical eligibility and the alignment of services with programs such as TANF and the National School Lunch Program, as doing so greatly simplifies access to SNAP, especially for working families, seniors, and people with disabilities.

Second, we should build upon and make permanent proven demonstration projects which streamline access to SNAP for vulnerable households while simultaneously cutting down on administrative expenses and increasing timeliness of case processing.

Next, we need to modify and expand the policies around access to SNAP benefits for college students and veterans with disabilities and allow for the purchase of hot or prepared foods outside of the Restaurant Meals Program. Allowing purchases such as the salad bar in grocery stores or the often-talked-about rotisserie chicken would give these individuals and all SNAP recipients the same flexibilities that other Americans depend upon.

Finally, the adaptations made over the past 2 years in response to the public health emergency have helped us better understand ways we can adjust program rules to meet the needs of our customers more flexibly. Opportunities are needed to further test and evaluate innovative approaches to SNAP administrative functions, such as cross-enrollment with other means-tested programs to provide space for states to transition out of the public health emergency, leveraging the lessons we have learned.

At the same time that we focus on commonsense approaches to simplifying SNAP, states are committed to maintaining program integrity as a top priority. Looking ahead, Congress can assist

states in their efforts to promote program integrity by helping equip them with tools that maintain accuracy and prevent fraud in the program. For example, I urge the Committee to support the USDA in advancing strategies that help states use third-party income databases to quickly identify earned income of SNAP participants, both improving program integrity and streamlining the enrollment process for households.

Coming out of the COVID-19 pandemic during a time when our aging workforce continues to grow and the number of individuals leaving the workforce increases, as well as the time where the farm bill is up for reauthorization, we collectively are at an inflection point where we have both tremendous opportunities to modernize and streamline the SNAP program to provide more equitable and effective services while also facing significant workforce challenges and complex requirements that threaten to stymie progress.

Thank you for your time and your work on this critical program.
[The prepared statement of Mr. Giacomini follows:]

PREPARED STATEMENT OF DANIEL R. GIACOMINI, SOCIAL SERVICES PROGRAM ADMINISTRATION MANAGER, CONNECTICUT DEPARTMENT OF SOCIAL SERVICES, HARTFORD, CT

Good morning, Chairwoman Hayes, Ranking Member Bacon, and distinguished Members of the Subcommittee. My name is Daniel R. Giacomini, and I am the Supplemental Nutrition Assistance Program (SNAP) Program Administration Manager for the Connecticut Department of Social Services (DSS). I am honored to appear before you today to offer testimony concerning a stakeholder's perspective on SNAP.

DSS is the state agency responsible for administering SNAP in Connecticut. We currently provide SNAP assistance to one in ten Connecticut residents—approximately 373,000 individuals in over 217,000 households in all 169 towns. As the SNAP administrator in Connecticut, DSS has first-hand knowledge of the complexities involved in determining eligibility for SNAP as well as creating and implementing SNAP policies, especially in comparison to other means-tested programs. SNAP eligibility is complicated largely because SNAP relies upon multiple eligibility factors and deductions and provides a benefit on a sliding scale rather than a flat grant. This experience informs our perspective on the administration changes to the program in the 2018 Farm Bill. But, more importantly, DSS has first-hand knowledge of how SNAP significantly reduces food insecurity in our state and stimulates local economies—particularly during times of economic downturns—as well as how SNAP improves health outcomes and supports individuals in all aspects of life, by providing essential nutrition to many working families, children, and elderly adults.

We would like to commend Congress for the actions taken in the 2018 Farm Bill and in the ensuing years that gave Connecticut the tools we so critically needed to meet the unprecedented challenges we have faced in recent years. In addition, the temporary flexibilities Congress enacted to increase SNAP benefits and adjust administrative rules early in the public health emergency meant that Connecticut DSS could preserve access to meaningful food assistance benefits for families while operating under the social and economic disruptions we experienced early in the pandemic. As we continue to phase out these flexibilities, Congress' foresight in the 2018 Farm Bill to direct USDA to update the Thrifty Food Plan is now helping SNAP benefits better keep pace with the rising cost of food in our country. This has undoubtedly supported the health and well-being of millions of Americans, but also was key to supporting local retailers in the economic recovery. SNAP remains one of the most effective tools at our disposal to boost the food industry and broader economy quickly and efficiently. We firmly believe that the actions Congress took were fundamental to SNAP being one of the true success stories of our country's pandemic response.

Food insecurity in Connecticut, like many states, rose significantly as a result of the COVID-19 pandemic, as evidenced in a report published in September 2021 by our partners at CT Foodshare's Institute for Hunger & Research Solutions.¹ Results

¹ <https://www.ctfoodshare.org/wp-content/uploads/2021/09/Food-Access-In-Connecticut-Report.pdf>.

from this study showed an overall 31% increase in food insecurity 1 year into the pandemic. Food insecurity was also greater in respondent households with children under age 18 (44%) compared to respondent households without a child (24%) and is greater in respondent households with people of color (43%) compared to respondent households where all members are white (26%).¹ Heightened food insecurity is also demonstrated by the volume of applications for SNAP assistance that we have received since the start of the pandemic. During the early days of the pandemic, DSS experienced a high of nearly 4,700 applications arriving weekly, a 330% increase from the number of SNAP applications received weekly in the period directly preceding the start of the pandemic, and we continue to receive over 3,000 applications per week a 176% increase from the number of SNAP applications received weekly in the period directly preceding the start of the pandemic.

Reflection on the 2018 Farm Bill

The 2018 Farm Bill has helped state agencies strengthen the impact of SNAP in many ways, both here in Connecticut and nationwide. First, as previously mentioned, the 2018 Farm Bill triggered a review of the Thrifty Food Plan (TFP), the first review in 46 years. For context, when the previous review was undertaken, a loaf of bread was \$0.28, a dozen eggs cost \$0.77, and milk was \$1.40 per gallon. The TFP review resulted in a modest increase in SNAP benefits equating, generally, to between \$12 and \$16 per person, per month. While this may not seem like an enormous increase to some, it was especially important at a time when the pandemic closed businesses and shut down offices, causing many individuals to lose work, be furloughed, or experience reduced hours, which in turn made them unable to meet their families' needs. Research from the previously mentioned CT Foodshare report showed that, 1 year since the onset of the pandemic, approximately $\frac{1}{3}$ of Connecticut residents were still experiencing a job disruption, with many changing shopping frequencies or purchasing habits, or relying on SNAP assistance. In addition, of the responses received in this report, 22% of the households indicated that they received SNAP benefits in the 3 months prior with nearly half of those respondents also said they had to seek additional food assistance, such as going to a food pantry, because their monthly SNAP benefits ran out before they received more.¹ While we continue to make progress recovering from the economic disruption of the pandemic, we now face record inflation placing further strain on the shoulders of families trying to feed their families. The greatest increase in food costs have come in food prepared at home, where costs as of March of this year are 10% more than they were last year.² That is why I believe the long-overdue review of the TFP was necessary and timely.

In addition to directly alleviating hunger at a time of significant societal disruption, the modest increase to the SNAP benefit resulting from the TFP review was important for broader economic and public health reasons. Research has shown that when SNAP benefits are increased, food expenditures increase, and when SNAP benefits are decreased, such as after the expiration of the SNAP benefit increase from the American Recovery and Reinvestment Act of 2009, food expenditures also decline, decreasing the affordability of a healthy diet.³ Additionally, it is known that when food insecurity is reduced, people are less likely to suffer from chronic illnesses such as Type 2 Diabetes, hypertension, high cholesterol, and heart and kidney disease. Additionally, "access to [SNAP] in childhood leads to a significant reduction in the incidence of 'metabolic syndrome' (obesity, high blood pressure, and diabetes) and, for women, an increase in economic self-sufficiency."⁴ Conversely, food insecurity is directly linked to poorer general and mental health.⁵ In fact, a study done by the USDA found that, in some cases, the level of a person's food security was an even greater predictor of chronic illness than income. "Income is signifi-

² <https://www.bls.gov/news.release/cpi.nr0.htm>.

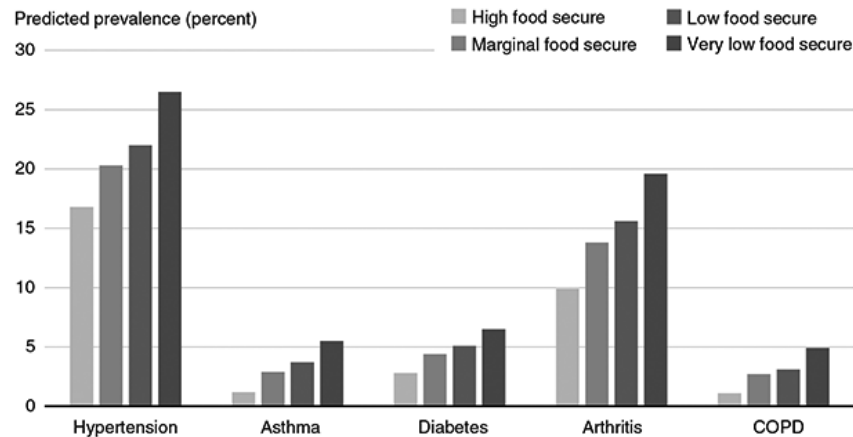
³ Steven Carlson. *More Adequate SNAP Benefits Would Help Millions of Participants Better Afford Food*. Center on Budget and Policy Priorities. July 30, 2019. <https://www.cbpp.org/research/food-assistance/more-adequate-snap-benefits-would-help-millions-of-participants-better>.

⁴ Hilary W. Hoynes, Diane Whitmore Schanzenbach, and Douglas Almond. *Long Run Impacts of Childhood Access to The Safety Net*. [NBER] Working Paper Series. November 2012. https://www.nber.org/system/files/working_papers/w18535/w18535.pdf.

⁵ Steven Carlson and Brynne Keith-Jennings. *SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care Costs*. Center on Budget and Policy Priorities. January 17, 2018. <https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care>.

cantly associated with only three of the ten chronic diseases—hepatitis, arthritis, and COPD—while food insecurity is significantly associated with all ten.”⁶

Predicted prevalence of more common chronic diseases by food security status, adults in low-income households



COPD = chronic obstructive pulmonary disease.

Source: USDA, Economic Research Service calculations using National Health Interview Survey data 2011–2015. Predicted prevalence estimates are adjusted for: survey year indicators, age, gender, employment, marital status, race/ethnicity, insurance status, highest education of any adult in household, number of children, family size, and household income-to-poverty ratio. Sample includes working-age adults in households at or below 200 percent of the Federal poverty line.

Improving access to nutritious food, in turn, leads to reduced healthcare spending, reduced likelihood of hospital visits, and overall better long-term health outcomes. In research released by USDA, 88% of SNAP participants reported facing at least one barrier to achieving a healthy diet throughout the month, with the most common barrier (reported by 61% of SNAP participants) being the affordability of healthy foods such as lean meat and fresh fruits and vegetables.⁷ Increasing families’ ability to afford nutritious food also brings better long-term health outcomes to future generations, as children who receive SNAP have improved health outcomes and higher educational attainment when compared to children not in SNAP households.⁵

The second area of the 2018 Farm Bill that I wish to touch on is the investment and changes in the SNAP Employment and Training (E&T) program. The Connecticut SNAP population is a diverse group with varying degrees of work readiness. In response, DSS’ voluntary SNAP E&T program is designed to help SNAP recipients gain valuable skills needed for self-sufficiency. Connecticut’s SNAP E&T program meets the wide range of work-related services needed by its SNAP participants by offering over 60 short-term vocational programs that are job focused and employer driven. Offerings range from 1 day security guard programs to 2 year associates degrees. In Connecticut, these activities are delivered through diverse partnerships with nonprofit community-based organizations and a private nonprofit college. In addition, in 2018, Connecticut became one of the first states in the nation to partner with every community college within the state’s college and university system, a process that began in 2011 and has become the pillar of our SNAP E&T program. With the flexibilities afforded through the 2018 Farm Bill, we are now exploring additional partnerships in the areas of pre-apprenticeships, apprenticeships

⁶Christian A. Gregory, Alisha Coleman-Jensen. *Food Insecurity, Chronic Disease, and Health Among Working-Age Adults*, ERR-235. U.S. Department of Agriculture, Economic Research Service. July 2017. <https://www.ers.usda.gov/webdocs/publications/84467/err-235.pdf?v=1071.6>.

⁷USDA Food and Nutrition Service. *Barriers that Constrain the Adequacy of Supplemental Nutrition Assistance Program (SNAP) Allotments*. June 23, 2021. <https://www.fns.usda.gov/snap/barriers-constrain-adequacy-snap-allotments>.

and subsidized employment, services that we were unable to offer until the recent farm bill changes. However, because income from participating in these programs would often result in individuals becoming ineligible for SNAP, we are unable to support many participants through their successful completion of job training programs. To help ensure SNAP E&T can be more effective in helping families succeed for the long-term, I urge Congress to revisit ways we can tackle benefit cliffs by disregarding income while households participate in SNAP E&T programs.

Also, as required by the 2018 Farm Bill, Connecticut's SNAP E&T partners now provide case management services that are unique to SNAP E&T participants and help each participant succeed in their employment and training activities. These services include employability assessments, individualized service plans, progress monitoring, monthly case notes, and coordination with other service providers as well as referrals for Adult Basic Education or other support services that enable the participant to remain engaged in his or her employment or training activity. The on-site case management services identify, and address barriers faced by participants. Providing these additional supportive services and removing barriers supports participants' completion of their SNAP E&T program and has produced many success stories in the Connecticut E&T program.

One recent success story involves a 39 year old enrollee residing in Hartford, Connecticut who was a participant of Capital Workforce Partners' Integrated Basic Education and Skills Training (BEST Chance) program. The BEST Chance Program is an initiative that provides manufacturing, construction, carpentry, and culinary training for individuals attempting to re-enter the work force after incarceration with an emphasis on 18–24 year old individuals in the Hartford area. This particular individual registered with the SNAP E&T program's 3 month pre-manufacturing course at Manchester Community College in September 2019, looking for a second chance and hoping to gain self-sufficiency through a new career. After completing training, she began her supervised job search phase and endured multiple rejections due to a previous felony record. In spite of the rejections, she persevered and, with the assistance of the SNAP E&T program and Capital Workforce Partners, continued to look for manufacturing jobs. In April 2020, she secured an employment offer from Boat Works of South Windsor, Inc. despite the uncertain work environment caused by COVID–19. She is making above minimum wage in Connecticut and is hoping that her hard work and perseverance will continue to move her forward in her new profession.

Another such success story involves a young woman living in New Haven County. Having already obtained her bachelor's degree, she was enrolled in an MBA program and working as a bank teller, both part-time, when she became pregnant with her first child, who was born in March 2016. She transferred to an accelerated MBA program, and her second son was born in 2017. Being both a full-time student and mother to two young children became a challenge, and she had to quit her job and apply for SNAP benefits. She persevered and obtained her MBA in 2018. However, with no recent work history, finding employment in her field was difficult. She finally found employment; first a sales job, and next as an operations manager at Michaels on her way to her "dream Job": Senior Operations Manager at Amazon. She applied, unsuccessfully, for several Amazon positions that often required Six Sigma Certification, which she did not have. She then remembered and enrolled in Gateway Community College's SNAP E&T Business Professional and Office Assistant Training Certification program which included Six Sigma White Belt Certification. Through this program, she was hired by Amazon in October 2020 and is currently an Operations Manager II, on her way to her dream job.

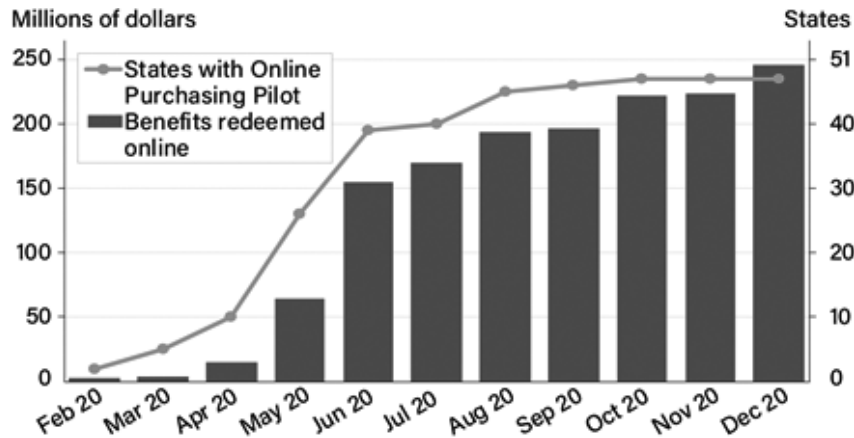
It is through this Committee's funding and support for the SNAP E&T program in the 2018 Farm Bill that these individuals and others like them have been able to achieve goals they once thought unattainable.⁸ But SNAP E&T remains a program that is early in its growth and there remains opportunity for us to do more. With additional 100% SNAP E&T funding appropriated by Congress, Connecticut could increase the number of community providers, types of services, and percentage of SNAP participants reached. In addition, there's more we can do to make work pay and support SNAP participants working in earnest to achieve family-sustaining wages. While our ability to offer apprenticeships and subsidized employment is a critical new tool provided to SNAP E&T programs through the 2018 Farm Bill, many SNAP households would lose their eligibility as a result of participating in such a program. As noted previously, Congress can help mitigate benefit cliffs and support SNAP recipients' long-term success by excluding income from these SNAP E&T components while participants work towards the goal of self-sufficiency.

⁸<https://portal.ct.gov/DSS/SNAP/SNAP-Employment-and-Training/Success-Stories>.

A third change made by the 2018 Farm Bill that has been of significant importance during the past 24 months concerns the expanded approval of access to online purchasing for redeeming SNAP benefits. At the beginning of the COVID-19 public health emergency, when families stayed home to help our state stop the spread of the virus, DSS was inundated with phone calls, emails, and letters from individuals across the state looking for ways to safely obtain groceries, particularly for households that included children or elderly individuals as well as those households that included disabled or immunocompromised individuals. The pandemic exacerbated an existing issue for many SNAP households: limited access to transportation and availability of nearby grocery-store options.

Thankfully, a move towards online purchasing was already underway at the beginning of the pandemic because the 2014 Farm Bill authorized a pilot program to test online purchasing, and the 2018 Farm Bill moved it towards nationwide implementation. Accordingly, there was already a framework of SNAP-participating vendors who were able to rapidly scale up the online-purchasing pilot such that an estimated 90% of SNAP participants lived in states that had implemented the pilot by June of 2020, including Connecticut.⁹ In Connecticut, the online purchasing pilot began with three retailers and has since expanded to ten, including both local and national retailers as well as a partnership with a nationwide grocery delivery service. This pilot provided a critical opportunity for states to experiment and modernize services in a way that has proven to be beneficial for clients and for the country's overall public health. 49 states, as well as the District of Columbia, have now signed on to participate and offer this critical tool to their residents, with the majority having done so by the end of 2020. As access to the pilot expanded during 2020, so did use of online SNAP purchasing. In February 2020, the earliest month for which data is available, households redeemed less than \$3 million in SNAP benefits online, accounting for less than 0.1% of all benefits redeemed that month. This value grew exponentially through June 2020, when online SNAP and P-EBT redemptions totaled \$154 million, or 1.6% of total redemptions. Online redemptions grew each subsequent month through December 2020 to \$246 million—86 times the value in February.⁹

Monthly online SNAP and P-EBT benefit redemptions grew as the SNAP Online Purchasing Pilot expanded to almost all States in 2020



Notes: SNAP = Supplemental Nutrition Assistance Program. P-EBT = Pandemic Electronic Benefit Transfer. “Benefits redeemed online” excludes the value of transactions made online in which benefits are redeemed in-person at time of grocery pickup. “States with Online Purchasing Pilot” denotes the number of states (including D.C.) where the SNAP Online Purchasing Pilot was operational on or before the last day of the month.

Source: USDA, Economic Research Service using data from USDA, Food and Nutrition Service.

⁹Jordan W. Jones. *Online Supplemental Nutrition Assistance Program (SNAP) Purchasing Grew Substantially in 2020*. July 06, 2021. <https://www.ers.usda.gov/amber-waves/2021/july/online-supplemental-nutrition-assistance-program-snap-purchasing-grew-substantially-in-2020>.

However, this pilot is not without its challenges. The biggest being that at the moment participants must pay out of their own pocket for delivery, convenience, or service fees which, over time, may disproportionately impact elderly and disabled individuals and others with mobility barriers. These charges can vary greatly depending on order size, membership or subscription plans, flat rates, *etc.* In addition, placing an order online is difficult without a bank account or access to credit, because having a debit or credit card apart from a SNAP EBT card is often needed to cover delivery fees and other fees.¹⁰ This issue is exacerbated by the fact that, for the majority of states operating in the pilot, we still do not have the ability to allow our SNAP participants to use any non-SNAP cash funds that they may have associated with their EBT account for these purchases. I urge the Committee to direct USDA to establish a demonstration project that explores subsidizing fees fully or partially for purchases made online with SNAP benefits in order to support additional access to online food options for those who are often most in need of those services.

Looking Ahead: The 2023 Farm Bill

The next reauthorization of the farm bill presents the opportunity to review the program with the benefit of the lessons learned during the temporary government shutdown of 2019 as well as the COVID-19 pandemic that began in 2020. The experience of administering the program during the shutdown and the pandemic has demonstrated the value and importance of program innovations, some of which should be made permanent, but has also revealed additional steps that could be taken to strengthen the program in the future, making it more resilient in times of greater need and able to include vulnerable groups that have long been overlooked. Significant improvements can and should be considered in areas that would foster innovation, streamline service delivery, and simplify the administration of the program, as well as ensure its integrity and stability.

- First and foremost, it is critical that we **preserve access to Broad-Based Categorical Eligibility (BBCE)** and the alignment of services with programs such as TANF and the National School Lunch Program as doing so greatly simplifies access to SNAP especially for working families, seniors, and people with disabilities. BBCE directly benefits nearly 65,000 low-income Connecticut residents, 35% of whom are aged birth–18, as well as millions of Americans across the vast majority of states that rely on this flexibility. It helps working families by eliminating a “benefit cliff” and lets low-income households accrue savings to avoid debt, prepare for unexpected events, and become self-sufficient. In addition, it reduces the administrative burden on states processing SNAP applications, changes, and renewals which correlates to a direct reduction in SNAP administrative costs per case of which the state and Federal Government each pay a share.
- Second, we should **build upon and make permanent proven demonstration projects, such as the Elderly Simplified Application Project (ESAP) and Combined Application Project (CAP)**, which streamline access to SNAP for vulnerable households while simultaneously cutting down on administrative expenses and increasing timeliness of case processing. In addition, other means-tested programs such as TANF, Medicaid, or WIC should be looked at to determine whether cross enrollment, or automatic enrollment, would be appropriate and efficient in ensuring individuals receive all of the assistance they need without the burden of filling out multiple applications and providing the same verifications multiple times, again reducing the SNAP administrative costs per case rates.
- We also need to **modify and expand the policies around access to SNAP benefits for college students and Veterans with disabilities**. With the demographic makeup and rising expenses faced by the college student population as well as increase in Veterans of working-age with a service-connected disability, more should be done to ensure these individuals do not go hungry. In a report published in February 2020, $\frac{1}{3}$ of all respondents at the University of Connecticut reported low or very-low-food security as measured by items from the USDA’s standard assessment tool. This same report showed that students who are food-insecure were more likely to report that they have missed class,

¹⁰Lagisetty P., Flamm L., Rak S., Landgraf J., Heisler M., Forman J. A *Multi-stakeholder Evaluation of the Baltimore City Virtual Supermarket Program*. BMC PUBLIC HEALTH. 2017; 17(1): 837.

missed assignments, and have considered dropping out.¹¹ In response to the COVID–19 pandemic, The Consolidated Appropriations Act of 2021 temporarily expanded student eligibility to students applying for SNAP benefits who were eligible to participate in a state or federally funded work study, as well as those who have an expected family contribution (EFC) of \$0, exemptions not otherwise offered to this population. Through partnerships with our colleges and universities, DSS was able to quickly identify and provide direct outreach to nearly 27,600 students in Connecticut that fit these categories and otherwise may not have been eligible for SNAP benefits. Likewise, in a recent USDA study, it was found that food insecurity was 22.5% higher among disabled working-age Veterans than the average for all working-age Veterans. This is significant in that in 2019, over 13 million Veterans were of working age and one of the fastest growing and youngest groups of Veterans—those who served after September 11, 2001—is more likely to have a service-connected disability than Veterans from other service periods.¹² While DSS does provide support and SNAP outreach assistance in areas such as stand-down events, we believe an expansion of SNAP eligibility to more service-connected disabled, elderly and housebound Veterans will help to ensure those individuals have the support and access to food that they deserve.

- **Allow for the purchase of hot/prepared foods outside of the Restaurant Meals Program.** Since the passage of the Food Stamp Act in 1964, Americans' shopping and eating habits have evolved, and SNAP families need convenience and faster meal-preparation. In addition, the rule, as it is currently interpreted does not consider whether the food will or even can be consumed on premises or taken home to be eaten. This restriction is most harmful to our homeless population that often do not have the means to prepare their foods, as well as those recovering from a natural disaster or event that renders their home uninhabitable and therefore lack convenient access to a kitchen or the ability to heat up foods. These families are among those most in need and most struggle with the ability to utilize their benefits. Instead, they rely upon the ingenuity and kindness of store owners and clerks to resort to loopholes such as the complimentary heating of food after purchase. Also, it was evident at the onset of the pandemic, when grocery stores were struggling to keep shelves stocked, that the inability to purchase hot and prepared foods was a major problem for SNAP participants. Allowing the purchase of hot or prepared foods outside of a fast-food setting, such as the salad bar in grocery stores and supermarkets, or the often talked about rotisserie chicken, would give these individuals and all SNAP recipients the same flexibility that other Americans depend upon.

¹¹ <https://senate.uconn.edu/wp-content/uploads/sites/1323/2020/03/2020-0302-Student-Affairs-Handout.pdf>.

¹² <https://www.ers.usda.gov/webdocs/publications/101269/err-829.pdf?v=6491.5>.



- Finally, the adaptations made over the past 2 years in response to the public health emergency have helped us better understand ways we can **adjust program rules to meet the needs of our customers more flexibly**. Opportunities are needed to further test and evaluate innovative approaches to interviews, change reporting, Periodic Report Forms, and telephonic signatures to provide space for states to transition out of the public health emergency leveraging the lessons we have learned. For example, many states already operate Combined Application Projects (CAP), state-demonstration programs that aim to increase SNAP participation among SSI recipients by enrolling them automatically into SNAP. These “demonstration projects” have been operating for 27 years and have proven very successful in increasing food stamp participation among SSI recipients. However, it is severely underutilized with only 17 states having some version of the CAP in place. This should become a regular component of the program with no cost neutrality, a provision in demonstration projects where states have to evaluate data to ensure the project should not cost more than it would have cost to add new participants under the regular SNAP program. In addition, other means-tested programs such as TANF, Medicaid, or WIC should be looked at to determine whether cross enrollment, or automatic enrollment, would be appropriate and efficient in ensuring individuals receive all of the assistance they need without the burden of filling out multiple applications and providing the same verifications multiple times to multiple agencies. This is especially important as state agencies, like many industries, face challenges in recruiting and retaining staff. Collectively, we need to think differently about the way we properly invest in technology and partnerships to ensure we continue to deliver on our core mission while doing more with less. Of similar importance is the alignment of QC process with those processes used to determine eligibility would ensure fair, accountable, and equitable processes for both the states and those we serve.

At the same time that we focus on common sense approaches to simplifying SNAP, states are committed to maintaining program integrity as a top priority. The public health emergency forced Connecticut to temporarily adapt many of our program rules to ensure families could continue to access their benefits safely and reliably. But through it all, we have continued to prioritize conducting quality control reviews, completing reviews both on the Federal and state levels throughout the pandemic, and participating in quarterly trainings with FNS staff in a multitude of QC areas including Able-Bodied Adults Without Dependents (ABAWDs). In fact, we have doubled down on these investments, adding five new review staff members

in the past year, and resuming a state process on hold since 2016 that requires DSS eligibility supervisors to each review at least 20 SNAP cases each month processed by both new and seasoned staff members to ensure robust case reviews are completed and program integrity remains at the forefront. As we get closer to the end of the public health emergency and approach a new normal in our program operations, we are in a strong position to continue our progress maintaining program integrity as we see it already providing results seen in the USDA's current posted payment error rates showing Connecticut's FY2022 error rate well below the national average.

Looking ahead, Congress can assist states in their efforts to promote program integrity by helping equip them with tools that help maintain accuracy and prevent fraud in the program. I applaud Congress for the investments made in the 2018 Farm Bill to create a National Accuracy Clearinghouse (NAC) that helps states identify and pursue individuals that seek to obtain SNAP benefits in multiple states, a process manually done today via email and faxed requests. The early efforts to scale this project have been promising and Connecticut looks forward to utilizing the lessons learned from the pilot states as we integrate our eligibility system into the NAC as it becomes nationwide. I also urge the Committee to support the USDA in advancing strategies that help states make optimal use of third-party income databases that can quickly identify earned income of SNAP participants, both improving program integrity and streamlining the enrollment process for households. Lastly, as fraudsters find new ways to steal SNAP participants' benefits through tactics such as identify theft and card cloning or skimming, Congress can help support states with the staffing and technology resources needed to detect, prevent, catch, and enforce penalties against these attempts to defraud the program while ensuring those unknowingly victimized by these individuals or groups do not lose the benefits to which they are entitled.

Conclusion

While the areas above reflect some extremely important areas of the SNAP program, they by no means represent a comprehensive list of programmatic areas or policies that can be implemented or modified to strengthen and improve an essential entitlement utilized by millions of Americans each month. Coming out of the COVID-19 pandemic, during a time when the percentage of the aging workforce continues to grow and the number of individuals leaving the workforce increases, as well as a time where the farm bill is up for reauthorization, states and this Committee are at an inflection point where we have both tremendous opportunities to modernize and streamline the program to provide more equitable and effective services while also facing the threat of workforce challenges and complex requirements that that threaten to stymie progress.

The actions of this Committee through the reauthorization of the farm bill in 2023 will play a crucial role in helping to unlock the potential advancements we can make in SNAP in the coming years, modernizing the program and its eligibility requirements while not sacrificing program integrity. It can do so by ensuring regular reviews and updates to the Thrifty Food Plan, continuing to expand the funding flexibility and range of SNAP E&T, modernizing the program by making permanent and providing support for no-cost online purchasing, maintaining the vital program simplification rules that helped us through the pandemic: BBCE, ESAP, expanded student eligibility, and interview/process streamlining, investing in new ways to help states stop more sophisticated electronic fraud techniques, and ensuring durable program stability for this critical part of the social safety net as clearly demonstrated during the program's success both before and during the pandemic.

The CHAIRWOMAN. Thank you so much for being here with us today. I now recognize Mrs. Cox for 5 minutes. Please begin when you are ready.

STATEMENT OF TY JONES COX, J.D., VICE PRESIDENT OF FOOD ASSISTANCE POLICY, CENTER ON BUDGET AND POLICY PRIORITIES, WASHINGTON, D.C.

Mrs. Cox. Chairwoman Hayes, Ranking Member Bacon, Members of the Subcommittee, thank you for the opportunity to testify. I am Ty Jones Cox, Vice President of Food Assistance Policy at the Center on Budget and Policy Priorities here in Washington, D.C. I will discuss three things today: why SNAP is so important, the

need for the updated Thrifty Food Plan, and how Congress can strengthen SNAP as part of the next farm bill.

SNAP is our most effective anti-hunger program. That is largely because everyone who is eligible can get benefits, and the program expands automatically to meet rising needs in tough times. SNAP provides tens of millions of low-income seniors, kids, and working adults with money to buy food in their local communities. About 92 percent of benefits go to households with income at or below the poverty line, and 54 percent go to households experiencing deep poverty. As a legal aid attorney in Virginia, I saw how SNAP was a critical piece of the patchwork of services that my clients used to feed their children when their wages just were not enough to close the gap.

In addition, SNAP acts as a first responder during emergencies and natural disasters. We saw how SNAP was critical in fighting food insecurity and other hardships during the pandemic. Because of SNAP and other relief measures by Congress, food insecurity did not surge during the pandemic the way it did during the Great Recession. SNAP is associated with better, short- and long-term outcomes in health, education, and self-sufficiency.

While SNAP is an effective tool in reducing food insecurity, the benefit amount had not kept up with the changing times. The revised Thrifty Food Plan raised SNAP benefits, helping households better afford a healthy diet. Average SNAP benefits went from about \$4.25 per person per day to about \$5.45 per person per day, which is obviously still quite modest. The Agriculture Department revised the Thrifty Food Plan at the specific direction of Congress and the bipartisan farm bill that was signed by President Trump.

About 2.4 million people, including more than one million children, are lifted above the poverty line because of this modest increase, based on a Center on Budget and Policy Priorities estimate that uses the supplemental poverty measure and Census data. That is something to celebrate, right? Previously, SNAP benefits were woefully inadequate, given the struggles of many households to buy and prepare healthy foods, and they were not aligned with the most recent dietary recommendations. This revision to the Thrifty Food Plan was needed, overdue, and one thing I think about is how many more children could have been lifted out of poverty if we had done something earlier.

The farm bill is the time for Congress to strengthen SNAP. Although I do not consider this a comprehensive list, I want to suggest two areas for the Committee to consider. First, SNAP does not reach all groups of eligible low-income people, and the Committee could strengthen SNAP to reduce the risk of food insecurity for these groups. For example, about ½ of adults over 60 participate in SNAP. Certain immigrants and college students who are experiencing food insecurity do not qualify for SNAP, and others are reluctant to participate or unaware they qualify. SNAP's 3 month time limit on non-disabled unemployed adults excludes many unemployed or underemployed workers, including veterans. And residents of Puerto Rico, American Samoa, and the Northern Mariana Islands are excluded from SNAP and instead receive food assistance through block grant programs that are not as responsive as SNAP.

Congress should consider how to ensure that SNAP program operations and oversight keep pace with technology and innovation. Out of necessity, SNAP adopted some technological improvements during the pandemic and proved that others were viable. The farm bill will be an opportunity to assess where these changes can be institutionalized or expanded. Participants in agencies are used to having to make do with outdated systems, and participants are accustomed to having subpar service. And this should no longer be acceptable in our Federal programs.

To wrap up, I want to highlight a sobering reality that should make all of us want to do more in fighting food insecurity. In 2021, one in four Black households with children and one in five Latino households with children was food-insecure. This is a crisis that has been going on for decades, even before the pandemic revealed these stark disparities. One in four is sobering. How do we let this kind of hardship persist year after year? This is a huge disadvantage for these children, even as they are just getting started in life. And we know that it will affect their health, education, and well-being for the rest of their lives. This cannot be how we operate. And I look forward to working together that we can change this.

Thank you again for the opportunity to testify.

[The prepared statement of Mrs. Cox follows:]

PREPARED STATEMENT OF TY JONES COX, J.D., VICE PRESIDENT OF FOOD ASSISTANCE POLICY, CENTER ON BUDGET AND POLICY PRIORITIES, WASHINGTON, D.C.

Thank you for the opportunity to testify today. I am Ty Jones Cox, Vice President of Food Assistance Policy at the Center on Budget and Policy Priorities (CBPP), an independent, nonprofit, nonpartisan policy institute located in Washington, D.C. CBPP conducts research and analysis on a range of Federal and state policy issues affecting families with low and moderate incomes. The Center's food assistance work focuses on improving the effectiveness of the major Federal nutrition programs, including the Supplemental Nutrition Assistance Program (SNAP, formerly food stamps). I have worked on SNAP policy and operations for more than 15 years, starting as a legal aid attorney in Virginia where I represented clients in their fair hearing and during their engagement with the Department of Social Services. Much of my current work is providing technical assistance to state officials and advocates, who wish to explore options and policies to improve SNAP operations to more efficiently serve eligible households. My team and I also conduct research and analysis on SNAP at the national and state levels. CBPP receives no government funding for our policy work or operations.

My testimony today explains SNAP's critical roles in fighting food insecurity and poverty; in supporting health and economic well-being; in defending against hardship during the COVID-19 pandemic; and in supporting people who are paid low wages. I'll also describe how the recent update to the Thrifty Food Plan, which is used to set the maximum amount of food assistance people participating in the SNAP receive, has increased the adequacy of SNAP benefits, allowing households to better afford a nutritious diet. Finally, I'll detail opportunities to strengthen SNAP in the next farm bill.

SNAP's Critical Role in Fighting Food Insecurity and Poverty

Research shows that SNAP is one of our most effective tools in reducing hunger and food insecurity, which occurs when a lack of resources causes household members to struggle to afford enough food for an active, healthy life during the entire year. As a result, it plays a critical role in our country.

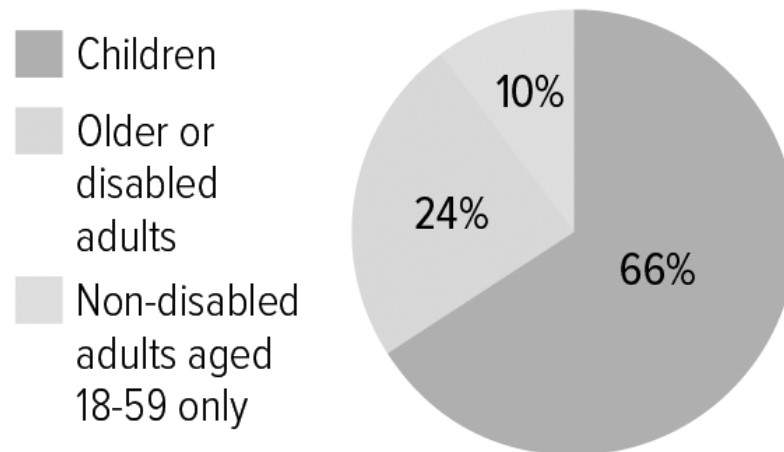
Much of SNAP's success is due to its structure: it is designed so that everyone who is eligible can get benefits; it expands automatically to meet needs during tough times; and it focuses its benefits to the households with the least resources available to purchase groceries, assisting families with low income to obtain adequate nutrition, regardless of where they live. As of February 2022, SNAP was helping 41 million low-income people in the U.S. to afford a nutritionally adequate diet by providing them with benefits on a debit card that can be used only to purchase food

at about 254,000 retailers across the country. On average, SNAP recipients receive about \$5.45 per person per day in food benefits, not counting the temporary additional benefits during the current public health emergency. SNAP's reach shows the extensive need for nutrition assistance and SNAP's critical role in addressing it.

Consistent with its original purpose, SNAP provides a basic nutrition benefit to people with low incomes who cannot afford an adequate diet. SNAP is one of the only Federal benefit programs available to almost all households with low incomes; many other programs are limited to certain populations, such as families with children or people with disabilities, or have capped funding that limits the number of people who can receive benefits. Nearly 90 percent of SNAP participants are in households that contain a child under age 18, an older adult 60 years or older, or an individual with a disability. (See *Figure 1*.) Based on pre-pandemic data, about $\frac{2}{3}$ of SNAP participants are in families with children; over $\frac{1}{3}$ are in households with older adults (aged 60 or older) or people with disabilities. Nearly half of SNAP households are headed by a non-Hispanic white person, about a quarter by a non-Hispanic Black person, and more than a fifth by a Latino person (of any race). About seven percent of SNAP households are headed by a person who is Asian or another race.

Figure 1. Nearly 90 Percent of SNAP Recipients Are in Households With Children, Older Adults, or Disabled Adults

Recipients in households with:



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Source: CBPP tabulations of USDA 2019 SNAP household characteristics data.

Children under age 18 constitute nearly half (43 percent) of all SNAP participants. Participation in SNAP also helps children receive school meals and confers eligibility to the Special Supplemental Program for Women, Infants, and Children (WIC). SNAP also benefits many households with workers paid low wages; the share of SNAP households that had earnings in an average month while receiving SNAP has risen over the past few decades, from 20 percent in 1992 to 29 percent in 2019.¹ Many households without earnings in a particular month are temporarily out of work and have worked recently and will work again soon.

SNAP reduces poverty and food insecurity by giving households benefits to buy groceries, which allows them to spend more of their budgets on other basic needs, such as housing, electricity, and medical care. SNAP reaches more than 80 percent of eligible households. It delivers the largest benefits to those least able to afford an adequate diet. About 92 percent of SNAP benefits go to households with incomes at or below the poverty line, and 54 percent go to households at or below half of

¹ Based on SNAP administrative data through 2019. Data are not available to know whether the trend continued during the pandemic.

the poverty line (about \$10,980 for a family of three in 2022). Families with the greatest need receive the largest benefits; these households, particularly households with children, also have higher rates of participation in the program.

These features make SNAP a powerful anti-poverty tool. SNAP kept nearly eight million people above the poverty line in the years before the COVID-19 pandemic, including 3.6 million children.² SNAP has one of the strongest anti-poverty effects among government economic security programs and is particularly effective at reducing deep poverty, that is, in lifting families' incomes above half of the poverty line.

SNAP reduces the overall prevalence of food insecurity by as much as 30 percent, and is even more effective among the most vulnerable, such as children and those with "very-low-food security," in which one or more household members skips meals or otherwise eats less during the year due to lack of money. The largest and most rigorous examination of the relationship between SNAP participation and food security found that food insecurity among children fell by roughly $\frac{1}{3}$ after their families received SNAP benefits for 6 months.³

SNAP is highly responsive to the economy. When more households are out of work or see their earnings fall, SNAP automatically expands to serve everyone who is eligible and applies. This mitigates hardship during a recession and gets money into the economy quickly, acting as stimulus for the economy overall. Low-income individuals generally spend all of their income meeting daily needs such as shelter, food, and transportation, so every dollar in SNAP that a household receives, including during a downturn, enables the family to spend an additional dollar on food or other basic needs. Nearly 78 percent of SNAP benefits are redeemed within 2 weeks of receipt and 96 percent are spent within a month.⁴ During the Great Recession and the COVID pandemic, policymakers turned to SNAP as an efficient mechanism for getting additional help to households struggling to afford food and contending with significant income losses and for bolstering aggregate demand, thereby reducing the duration and depth of the economic downturn.

Research backs up how SNAP can act as economic stimulus. Every dollar in new SNAP benefits generates business for local retailers of all types and sizes, and increases the Gross Domestic Product by \$1.50 during a weak economy. Similarly, the Congressional Budget Office (CBO) and Moody's Analytics found that SNAP has one of the largest "bangs-for-the-buck" for increasing economic activity and employment among a broad range of stimulus policies.⁵

SNAP also acts as a first responder in the wake of the emergencies and natural disasters, providing critical food assistance to vulnerable households. After disasters, the U.S. Department of Agriculture (USDA) and states work together to provide quick, targeted assistance. This can include replacing participants' benefits to compensate for lost food, providing temporary Disaster SNAP (D-SNAP) benefits to non-participants who have suffered significant loss, and relaxing program requirements to ease access and relieve undue burden on staff.

SNAP's Role in Supporting Health and Economic Well-Being

SNAP is associated with improved outcomes in health, education, and self-sufficiency. SNAP participants are more likely to report excellent or very good health than low-income non-participants. Research comparing long-term outcomes of individuals in different areas of the country when SNAP expanded nationwide in the 1960s and early 1970s found that access to SNAP during pregnancy and in early childhood improved birth outcomes and long-term health as adults. Studies have linked SNAP to improved educational attainment, higher rates of high school completion, and improved labor market outcomes in adulthood. Older SNAP partici-

²Matt Saenz, "Research Note: Economic Security Programs Significantly Reduce Poverty in Every State," CBPP, August 10, 2021, <https://www.cbpp.org/research/poverty-and-inequality/economic-security-programs-significantly-reduce-poverty-in-every>.

³James Mabli, *et al.*, "Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security," Food and Nutrition Service, USDA, 2013, <https://www.fns.usda.gov/measuring-effect-snap-participation-food-security-0>.

⁴Laura Castner, *et al.*, "Benefit Redemption Patterns in the Supplemental Nutrition Assistance Program in Fiscal Year 2017," Insight Policy Research, 2020, <https://www.fns.usda.gov/snap/benefit-redemption-patterns-fy-2017>.

⁵Alan Blinder and Mark Zandi, "The Financial Crisis: Lessons for the Next One," CBPP, October 15, 2015, <https://www.cbpp.org/research/economy/the-financial-crisis-lessons-for-the-next-one>; Patrick Canning and Brian Stacy, "The Supplemental Nutrition Assistance Program (SNAP) and the Economy: New Estimates of the SNAP Multiplier," USDA Economic Research Service, July 2019, <https://www.ers.usda.gov/webdocs/publications/93529/err-265.pdf?v=82728>; Congressional Budget Office, "Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output in 2014," February 2015, <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49958-ARRA.pdf>.

pants are less likely than similar non-participants to forgo their full prescribed dosage of medicine due to cost. SNAP may also help low-income seniors live independently in their communities and avoid hospitalization.

SNAP is linked with reduced health care costs. On average, after controlling for factors expected to affect spending on medical care, low-income adults participating in SNAP incur about \$1,400, or nearly 25 percent, less in medical care costs in a year than low-income non-participants. The difference is even greater for those with hypertension (nearly \$2,700 less) and coronary heart disease (over \$4,100 less). Two other studies also found an association between SNAP participation and reduced health care costs of as much as \$5,000 per person per year.⁶

SNAP enables low-income households to afford more healthy foods. Because SNAP benefits can be spent only on food, they boost families' food purchases. The updated Thrifty Food Plan (TFP), discussed more below, resulted in higher benefit levels, which will help households better afford a healthy diet featuring more whole grains, different-colored fruits and vegetables, and lean proteins. The fact that SNAP can only be used for food purchased from grocery stores or other food retailers likely encourages better nutrition among participants, because it shifts food spending away from restaurants. In addition, all states operate SNAP nutrition education programs to help participants make healthy food choices.

SNAP Acted as a First Line of Defense Against Hardship During Pandemic

After the onset of the COVID-19 pandemic, SNAP responded quickly to deteriorating economic conditions, pushed back against food insecurity and other forms of hardship, and supported families during periods of unemployment, earnings loss, and uncertainty. Moreover, Congress acted expeditiously to temporarily modify and expand SNAP—changes that states implemented quickly and effectively—to deliver additional food assistance to households in communities across the country.

In March 2020, when Congress enacted and President Trump signed the first legislation to address the health and economic impacts of COVID-19, hunger was poised to soar. Calls requesting help with food to state “211” numbers, which households in need of help can use for human services referrals, were over four times greater in late March through mid-May 2020 than earlier in 2020.⁷ The food bank network Feeding America distributed 42 percent more food in the second quarter of 2020 than it did in the first quarter, and food banks were growing increasingly concerned about their ability to meet the increased need.⁸

During the Great Recession, the share of households that were food-insecure rose from 11.1 percent in 2007 to 14.7 percent in 2009, according to Agriculture Department estimates. Yet during the COVID-19 pandemic, because of SNAP's structural ability to respond to increased need as well as the robust relief effort in SNAP and other efforts—including unemployment insurance and economic impact payments—the typical annual measure of food insecurity in 2020 was unchanged from the 2019 level of 10.5 percent.⁹

This overall figure obscures that food insecurity under the annual measure did rise for households with children and for households headed by Black adults; people of color have faced higher levels of food insecurity for decades. (See *Figure 2*.) And other Census data show higher levels of food insufficiency (a different measure of food hardship, in which adults report that their household sometimes or often did not have enough to eat in the last week) during the pandemic than what the annual data show. But it's clear that SNAP and other forms of economic support prevented food insecurity from surging during the pandemic the way it did during the Great Recession.

⁶Steven Carlson and Brynne Keith-Jennings, “SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care Costs,” CBPP, January 17, 2018, <https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care>.

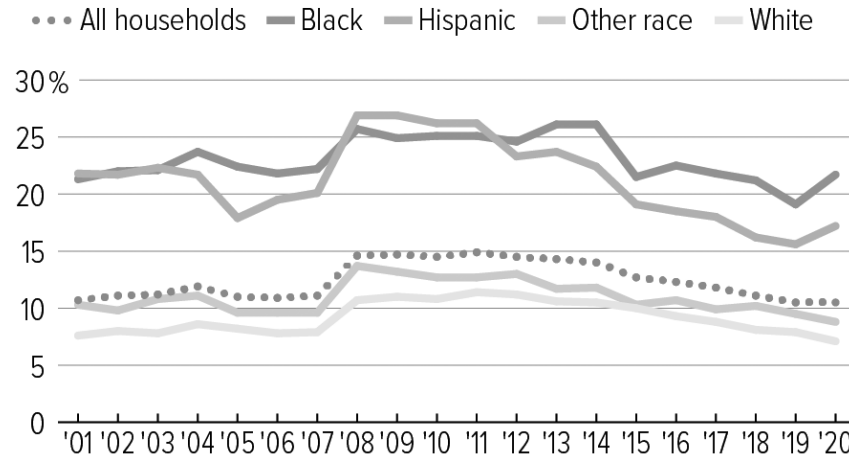
⁷Rachel Garg, et al., “A new normal for 2-1-1 food requests?” Washington University in St. Louis Health Communication Research Laboratory, June 15, 2020, <https://hcr.l.wustl.edu/a-new-normal-for-2-1-1-food-requests/>; Cindy Charles, et al., “Trends of top 3 food needs during COVID,” Washington University in St. Louis Health Communication Research Laboratory, August 7, 2020, <https://hcr.l.wustl.edu/trends-of-top-3-food-needs-during-covid/>.

⁸Paul Morello, “The food bank response to COVID, by the numbers,” Feeding America, March 12, 2021, <https://www.feedingamerica.org/hunger-blog/food-bank-response-covid-numbers>.

⁹Alisha Coleman-Jensen, et al., “Household Food Security in the United States in 2020,” USDA, September 2021, <https://www.ers.usda.gov/publications/pub-details/?pubid=102075>.

Figure 2. Food Insecurity by Race and Ethnicity Reveals Stark Disparities

Percentage of households that lacked access to adequate food at some point in the year, by race and ethnicity, 2001–2020



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Note: Other race = people who identify as American Indian or Alaskan Native, Asian, Hawaiian or Pacific Islander, or more than one race. Hispanic people may be of any race.

Source: U.S. Department of Agriculture.

Because of SNAP's structure, participation can expand automatically in response to job and income losses, and policy changes enacted during the pandemic boosted caseloads modestly as well. SNAP is available within a month—often within a week—of a household's application, so it was one of the first forms of economic relief available to many low-income families during the pandemic when people lost jobs, had their hours cut, or were unable to work because of illness.

The number of SNAP participants grew from 37 million in an average month just before the pandemic to 43 million in June 2020. (The total number of individuals helped by SNAP during the pandemic is higher than these point-in-time figures because households enrolled in and left the program over the course of the last 2 years.) The number of people participating in SNAP has declined since the summer of 2020, but in February 2022 (the most recent data available) more than 41 million people participated, 12 percent above the February 2020 level. CBO forecasts the number of SNAP participants will continue to decline in coming years and ultimately fall below pre-pandemic levels. After a downturn, SNAP caseloads tend to remain elevated for a number of years. One reason is that during a crisis, families who may have already been eligible apply for SNAP as they face greater need and uncertainty. Such households may continue to participate in the program, receiving benefits to augment their low earnings until their earnings rise enough to make them wholly ineligible.

Beginning in March 2020, Congress temporarily modified SNAP rules to further reduce hardship and support the economy, taking advantage of SNAP's ability to deliver benefits quickly and efficiently on households' electronic benefit transfer (EBT) cards. These changes included:

- **Emergency allotments (EAs).** In March 2020 Congress gave states and USDA the flexibility to provide emergency SNAP benefit supplements, which all states did. Congress authorized USDA to approve EAs for as long as the Federal Government has declared a public health emergency and the state has issued an emergency or disaster declaration. As of May 2022, about 15 states had ended their disaster declarations and were no longer providing EAs. In states providing EAs, all households receive the maximum benefit for their household size; if the difference between the maximum benefit and the house-

hold's original benefit under the SNAP benefit formula is less than \$95, then the household's EA is increased so the total EA benefit is no lower than \$95.¹⁰

- **A 15 percent SNAP benefit boost.** Congress acted in December 2020 to raise SNAP maximum benefits by 15 percent from January through June 2021. The American Rescue Plan extended the increase through September 2021, when the increase ended.
- **The Pandemic-EBT program (P-EBT).** Congress created P-EBT in March 2020 as a temporary program to provide benefits to households with children who miss out on free or reduced-price school meals due to the pandemic. Congress later extended and expanded it to provide benefits to cover certain younger children and during the summer, when food insecurity among children rises.

While not SNAP benefits, P-EBT is delivered on SNAP's EBT cards and state SNAP agencies played a leadership role in standing up this new program within just a few months. P-EBT reduced the share of families where children experienced very low food security by 17 percent, according to Brookings Institution research. The program reduced food insufficiency, by 28 percent, the same study found. The effects were larger in states that had higher rates of school closures during the pandemic.¹¹ States' ability to provide P-EBT benefits is tied to the Federal public health emergency. All or nearly all states offered P-EBT benefits during the past couple of school years and last summer. Currently more than half of states have USDA-approved plans to issue P-EBT benefits for the 2021–2022 school year when schools are closed or attendance is disrupted due to COVID–19, and USDA recently issued guidance to states regarding P-EBT for summer 2022.

Average SNAP benefits across all households rose from about \$120 per person per month before the pandemic to about \$230 in the summer of 2021. Since then, SNAP pandemic relief has fallen after the 15 percent benefit boost ended and states have started to pull back on emergency supplements. When the emergency allotments end—as has happened already in some states and will happen in other states with the end of the Federal public health emergency—SNAP households see their benefits fall by an average of about \$80 per person per month, or about 33 percent, though the exact amount depends on the household's income and other circumstances. The average SNAP benefit per person per day drops from about \$8 to about \$5.45. Fortunately, because of the update to the Thrifty Food Plan, described below, SNAP benefits after the EAs end are far more adequate than they otherwise would have been.

During the pandemic Congress also:

- Temporarily suspended SNAP's harsh 3 month time limit, which takes benefits away from many adults under age 50 without children in the home when they don't have a job for more than 20 hours a week;
- Loosened the general rule that makes many college students ineligible for SNAP;
- Allowed waivers of certain administrative process requirements in SNAP to enable administrators to deliver benefits promptly and safely even as caseloads surged and eligibility staff worked from home; and
- Increased funding for the nutrition assistance block grants in Puerto Rico, American Samoa, and the Northern Mariana Islands and funded additional commodity purchases for emergency food programs.

The pandemic highlighted the critical role that SNAP plays in delivering resources quickly to individuals and their communities. It also reinforced the excep-

¹⁰The Trump Administration originally set EAs at the amount that raised each SNAP household's benefits to the level of the SNAP maximum allotment—which helped those households that didn't otherwise receive the maximum allotment, but left out the 40 percent of SNAP households who have the lowest incomes and already received the maximum allotment. In April 2021, USDA revised the emergency allotment calculations to include the lowest-income households so each household now receives at least an additional \$95 a month. See USDA, "USDA Increases Emergency SNAP Benefits for 25 million Americans," April 1, 2021, <https://www.fns.usda.gov/news-item/usda-006421>.

¹¹Lauren Bauer, Kristina Ruffini, and Diane Whitmore Schanzenbach, "An Update on the Effect of Pandemic EBT on Measures of Food Hardship," Hamilton Project, September 29, 2021, <https://www.brookings.edu/research/an-update-on-the-effect-of-pandemic-ebt-on-measures-of-food-hardship/>. As explained above, very-low-food insecurity is the most severe form of food insecurity where children have to take steps such as skipping meals because they lack resources. Food insufficiency is a different measure where adults report that their household sometimes or often did not have enough to eat in the last week.

tional dedication and perseverance of the state officials across the country who administer the program with compassion and integrity.

SNAP Supports Workers Paid Low Wages

SNAP is an important support for workers who are paid low wages. Millions of people in the U.S. work in jobs with low wages, unpredictable schedules, and no benefits such as paid sick leave—all of which contribute to high turnover and spells of unemployment. SNAP provides monthly benefits that help fill gaps for workers with low and inconsistent pay and can help workers afford food during periods when they are looking for work.

Several features of SNAP's benefit structure make it an effective support for workers. During the pandemic, SNAP has helped millions of households experiencing unemployment and a turbulent job market. However, SNAP's harsh 3 month time limit for unemployed adults not raising children cuts off benefits for participants who may be looking for work or who face barriers to work, creating hardship with no significant impact on employment among those affected.

SNAP helps workers in low-paying jobs put food on the table. The share of SNAP households that worked in an average month while receiving SNAP grew over the past 3 decades, until the onset of the pandemic. Work rates rose among all SNAP households, but especially among households with children. This trend continued despite the large job losses in the Great Recession.

Close to $\frac{2}{3}$ of working SNAP participants work in service, office and administrative support, sales, or professional occupations. Many of the jobs most common among SNAP participants, such as service or sales jobs like cashiers, cooks, or home health aides, often feature low pay and irregular work hours, and frequently lack benefits such as paid sick leave.¹² These conditions make it difficult for workers to earn sufficient income to provide for their families and may contribute to volatility such as high job turnover. SNAP supplements these workers' low pay, helps smooth out income fluctuations due to irregular hours, and helps workers when they temporarily lose employment, enabling them to buy food and use their limited resources on other basic necessities.

The pandemic has disproportionately impacted the low-paid labor market and SNAP participants seeking work. The majority of jobs lost in the crisis were in industries that pay low wages, with the lowest-paying industries accounting for 30 percent of all jobs but 59 percent of the jobs lost from February 2020 to October 2021, according to Labor Department employment data. Jobs were down nearly twice as much in low-paying industries (4.5 percent) as in medium-wage industries (2.6 percent) and roughly 15 times as much as in high-wage industries (0.3 percent) during this period.¹³ Workers who were born outside the U.S. (including individuals who are now U.S. citizens) experienced larger job losses than U.S.-born workers.

Black and Latino workers experienced a far slower jobs recovery than white workers—reflecting historical patterns rooted in structural racism. By May 2022, however, unemployment rates for Black and Latino workers had returned to pre-pandemic levels, though they still are substantially higher than unemployment rates for white workers. Some 6.2 percent of Black workers and 4.3 percent of Latino workers were unemployed in May 2022, compared to 3.2 percent of white workers.

The majority of SNAP participants who can work do so, either while receiving SNAP or before and after. Many turn to SNAP when they are between jobs. Among SNAP participants who are working-age, non-disabled adults, more than half work while receiving SNAP—and 74 percent work in the year prior to or the year after receiving SNAP. For families with children and at least one working-age, non-disabled adult the work rates are even higher: 75 percent of households with children include someone who works while receiving SNAP and nearly 90 percent of such households include someone who works in the year prior to or the year after receiving SNAP.¹⁴ This shows that joblessness is often temporary for SNAP participants.

The low pay and instability in many low-paid jobs can contribute to income volatility and job turnover: workers paid low wages, including many who participate in SNAP, are more likely than other workers to experience periods when they are out of work or when their monthly earnings drop, at least temporarily. These dynamics

¹² Brynne Keith-Jennings and Vincent Palacios, "SNAP Helps Millions of Low-Wage Workers," Center on Budget and Policy Priorities, May 17, 2017, <https://www.cbpp.org/research/food-assistance/snap-helps-millions-of-low-wage-workers>.

¹³ CBPP, "Tracking the [COVID]-19 Economy's Effects on Food, Housing, and Employment Hardships," updated February 10, 2022, <https://www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and>.

¹⁴ CBPP analysis of the 2014 panel of the U.S. Census Bureau's Survey of Income and Program Participation.

lead many adults to participate in SNAP for short periods, often while between jobs or when their work hours are cut. Others, such as workers with steady but low-paying jobs or those unable to work, participate longer-term.

People working for low pay are underserved in many states. Even though SNAP provides an important support for these workers, this population is often particularly hard to reach. In 2019, 72 percent of individuals with earnings who were eligible for SNAP participated compared to 82 percent of all eligible people, according to USDA estimates.¹⁵

SNAP's design supports work. Some policymakers have raised concerns that programs that provide assistance for low-income families may discourage work if participants are worried that they will face a “cliff” where they lose their benefits entirely if they take a job or increase their earnings above the program's income limit. SNAP contains three features that result in a fairly small benefit cliff for households with income at the upper end of SNAP's income eligibility limit.

First, SNAP's standard benefit formula (in place outside of the current public health emergency) targets benefits based on a household's income and expenses, but the program phases out benefits *slowly* with increased earnings and includes a 20 percent deduction for earned income to reflect the cost of work-related expenses and to function as an additional work support. As a result, each additional dollar of earnings results in most households experiencing a decline of only 24¢ to 36¢ in SNAP benefits. Most SNAP households see an increase in their total income when their earnings rise modestly—particularly if they are in the income range where the Earned Income Tax Credit is increasing as earnings rise—even if some other benefits begin to phase down as well. As a result of the earnings deduction, a household with earnings will receive a larger SNAP benefit than a household of the same size and gross income in which income comes from unearned sources.

SNAP does, however, limit gross income to 130 percent of the Federal poverty line, creating a small but meaningful benefit cliff or benefit loss for some households who see their earnings increase from just below to just above that level. This loss of SNAP would cancel out more of the increased earnings than is the case for lower-income households, and, depending on how much the household had increased its earnings, the household may not be better off over a narrow income range.

For example, a single parent with two children working full time at \$13.50 an hour would have income at 128 percent of the poverty level and receive about \$317 a month from SNAP, making up about 12 percent of their total monthly income. If their hourly wage increased by 50¢ (or \$87 a month), lifting the household's income just above 130 percent of FPL (\$2,379 for a family of three per month in Fiscal Year 2022), the family would become ineligible for SNAP under the Federal income eligibility cut-off. In this circumstance, the household's loss of SNAP benefits would more than cancel out the higher earnings; their total monthly resources would decline by about \$230 per month.¹⁶ (The parent may see further wage increases over time, now building from a higher base, and at that point their higher earnings would make the family better off.)

Fortunately, states currently have an option to lift the gross income limit through “broad-based categorical eligibility.” This state option is the second protection in SNAP against a benefit cliff. More than 30 states have taken advantage of the option thereby allowing benefits to phase out gradually for all working households. Consider the previous example in a state that used the categorical eligibility option to adopt a higher gross income limit. The household's SNAP benefit would drop by only about \$30 a month when their income rose, so the household would still be better off with the higher-paying job. The option allows states to smooth SNAP's phase out and eliminate the relatively modest benefit cliff; states that adopt the option ensure that if a working household is able to increase their earnings, their SNAP benefits phase out slowly and evenly.

The third protection against a benefit cliff is SNAP's structural guarantee to make food assistance available to every household that qualifies under program rules and applies for help. SNAP households that leave the program because they find a job or get a raise and no longer qualify can count on SNAP being available if they need help again later. Without this guarantee a household that loses its job might have to wait until funding became available to resume benefits—as occurs now with child

¹⁵Alma Vigil, “Trends in USDA Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2016 to Fiscal Year 2019,” USDA, March 2022, <https://www.fns.usda.gov/snap/trends-participation-rates-fy-2016-2019>.

¹⁶CBPP calculation based on fiscal year 2022 SNAP benefit parameters and fiscal year 2019 SNAP household characteristics data. We assume no emergency allotments are in effect. In this example, this family claims the \$177 standard deduction and the 20 percent earned income deduction and has \$1,407 monthly shelter costs.

care and other benefits that are constrained by funding limitations from serving all who are eligible. That SNAP can serve all who qualify for its benefits lowers the perceived risks of working, making it easier for low-income families to take a chance on a new job or promotion.

SNAP's time limit does not increase work effort but does cut people off benefits. SNAP's role as the nation's primary anti-hunger safety net has long had a gaping hole. Non-elderly adults without children in their homes can receive benefits for only 3 months every 3 years, unless they are working at least 20 hours a week or can document they are unable to work. Most states offer little if any help in meeting the 20 hour requirement, so the rule is actually a time limit on benefit receipt, cutting off all individuals who are unable to find enough hours of work. States can temporarily waive the time limit in areas where there are insufficient jobs. Due to the pandemic, the time limit is temporarily suspended nationwide.

Research shows that taking food away from households does not lead to increased work effort or earnings. A recent USDA report adds to the growing evidence that the time limit doesn't lead to SNAP participants finding a job.¹⁷ By taking SNAP away, the time limit leaves people with fewer resources to buy food and puts them at risk of food insecurity.

Additional research supports these findings. A recent paper showed that SNAP's time limit reduced participation in the program by 53 percent among those subject to the time limit, again with no effects on employment.¹⁸ Earlier research found people subject to the time limit lost SNAP benefits and that losing SNAP eligibility did not increase employment but did increase the number of days people reported being in poor health.¹⁹

Studies also confirm that individuals potentially subject to the time limit are more likely to have significant barriers to employment, such as lack of a high school diploma or GED, a felony conviction, or lack of transportation or a driver's license, and have higher rates of homelessness and mental or physical conditions that can impact their ability to work.

Thrifty Food Plan Update Increasing SNAP's Benefit Adequacy

SNAP's purpose is to help participants afford a variety of healthy foods. SNAP benefit levels are tied to the cost of the Department of Agriculture's Thrifty Food Plan, a food plan intended to provide adequate nutrition at a budget-conscious cost.

The bipartisan 2018 Farm Bill directed USDA to reevaluate the Thrifty Food Plan to better reflect the modern cost of a healthy diet by 2022 and every 5 years thereafter. (See *Figure 3*.) USDA's updated Thrifty Food Plan, which was issued in August 2021 (meeting the statutory timeframe) and went into effect at the start of fiscal year 2022, increased SNAP's purchasing power, raising average benefits per person per day by about \$1.20 to about \$5.45 in fiscal year 2022, which will help millions of families' ability to add a greater variety of fruits, vegetables, and other healthy foods to their diet.²⁰

¹⁷Laura Wheaton, *et al.*, "The Impact of SNAP Able-Bodied Adults Without Dependents (ABAWD) Time Limit Reinstatement in Nine States," Urban Institute, June 2021, <https://www.fns.usda.gov/snap/impact-snap-able-bodied-adults-without-dependents-abawd-time-limit-reinstatement-nine>.

¹⁸Colin Gray, *et al.*, "Employed in a SNAP? The Impact of Work Requirements on Program Participation and Labor Supply," National Bureau of Economic Research Working Paper 28877, June 2021, <https://www.nber.org/papers/w28877>.

¹⁹Ed Bolen, *et al.*, "Permanently End the SNAP Cut-Off to Support a More Equitable Recovery," CBPP, May 2021, <https://www.cbpp.org/research/food-assistance/permanently-end-the-snap-cut-off-to-support-a-more-equitable-recovery>; Wenhui Feng, "The Effects of Changing SNAP Work Requirement on the Health and Employment Outcomes of Able-Bodied Adults without Dependents," *Journal of the American Nutrition Association*, Vol. 41, No. 3, 2021, pp. 281–290, <https://www.tandfonline.com/doi/abs/10.1080/07315724.2021.1879692?journalCode=uacn20&>.

²⁰Joseph Llobrera, Matt Saenz, and Lauren Hall, "USDA Announces Important SNAP Benefit Modernization," CBPP, August 26, 2021, <https://www.cbpp.org/research/food-assistance/usda-announces-important-snap-benefit-modernization>.

Figure 3. Original text from Agriculture Improvement Act of 2018



TITLE IV—NUTRITION

Subtitle A—Supplemental Nutrition Assistance Program

SEC. 4001. REQUIREMENTS FOR ONLINE ACCEPTANCE OF BENEFITS.

(a) **DEFINITION.**—Section 3(o)(1) of the Food and Nutrition Act of 2008 (7 U.S.C. 2012(o)(1)) is amended by striking “or house-to-house trade route” and inserting “, house-to-house trade route, or online entity”.

(b) **ACCEPTANCE OF BENEFITS.**—Section 7(k) of the Food and Nutrition Act of 2008 (7 U.S.C. 2016(k)) is amended—

- (1) by striking the heading and inserting “ACCEPTANCE OF PROGRAM BENEFITS THROUGH ONLINE TRANSACTIONS”;
- (2) in paragraph (4) by striking subparagraph (C), and
- (3) by striking paragraph (5).

SEC. 4002. RE-EVALUATION OF THRIFTY FOOD PLAN.

Section 3(u) of the Food and Nutrition Act of 2008 (7 U.S.C. 2012(u)) is amended by inserting after the 1st sentence the following:

“By 2022 and at 5-year intervals thereafter, the Secretary shall re-evaluate and publish the market baskets of the thrifty food plan based on current food prices, food composition data, consumption patterns, and dietary guidance.”

SEC. 4003. FOOD DISTRIBUTION PROGRAM ON INDIAN RESERVATIONS.

(a) **IN GENERAL.**—Section 4(b) of the Food and Nutrition Act of 2008 (7 U.S.C. 2013(b)) is amended—

by striking paragraph (4) and inserting the following:

It had been 15 years since USDA last revised the TFP and nearly 60 years since it reexamined the TFP's real purchasing power. The revised TFP is a model food plan that's more: in sync with what families with low incomes eat, or would eat if less budget constrained; attuned to the realities of time-strapped families; and reflective of scientific evidence for a nutritious, varied diet that includes more whole grains, different-colored fruits and vegetables, and lean proteins (including seafood).

SNAP expects families receiving benefits to spend 30 percent of their net income on food. Families with no net income receive the maximum benefit, which is set at the cost of the Thrifty Food Plan. For all other households, the monthly SNAP benefit equals the maximum benefit for that household size minus the household's expected contribution.

Before TFP Update, Evidence Showed Benefits Were Inadequate

Before USDA's revision, the Thrifty Food Plan had been adjusted only for inflation since the 1970s, even as our understanding of what constitutes a healthy diet changed. That left SNAP benefits badly out of line with the most recent dietary recommendations and the economic realities most struggling households face when trying to buy and prepare healthy foods.

Prior to the TFP revision, many families struggled once SNAP benefits ran out. About ¼ of all households exhausted virtually all their benefits within a week of receipt, and more than half exhausted virtually all benefits within the first 2 weeks. Numerous studies have found that late in the benefit cycle (that is, toward the end

of the month), SNAP participants consumed fewer calories (with the probability of going an entire day without eating tripling from the first to the last day of the month), were likelier to experience food insecurity, visited food pantries more frequently, and may have been more likely to visit emergency rooms or to be admitted to a hospital because of low blood sugar. In addition, at the end of the benefit month, children's test scores were lower and they were more likely to misbehave in school.²¹

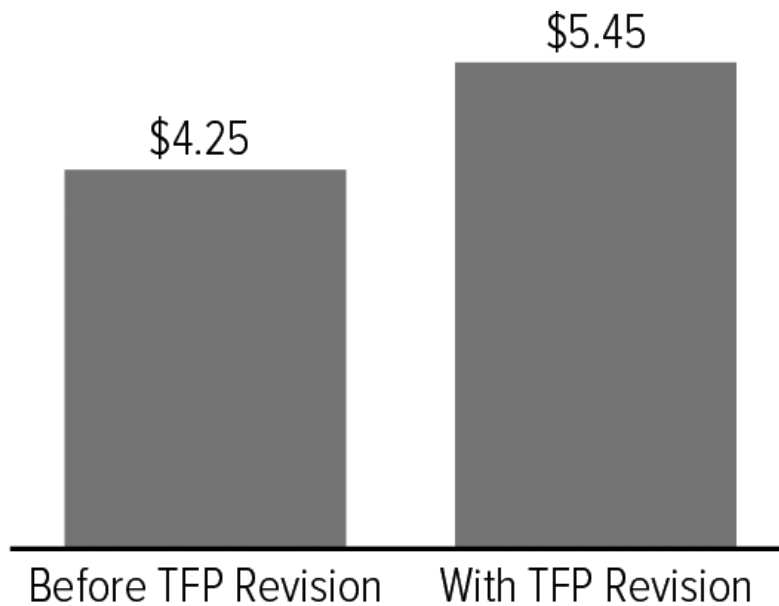
Scientific evidence now emphasizes the importance of eating a broad range of somewhat more costly foods, including more whole grains, red, orange, and leafy green vegetables, lean proteins, and seafood. To prepare a healthy diet, families must have enough money to buy ingredients, as well as the time needed to plan meals, buy and prepare food, consume meals, and clean up. With the increase in women's labor force participation since the 1970s, and with many parents working multiple jobs, many families lack this time for food preparation.

To stay cost-neutral over the years, the TFP had relied on a limited set of less-expensive foods, had assumed that families can spend a considerable amount of time preparing meals mostly from scratch, and had not accounted for varying family types and dietary needs. As a result, SNAP benefits had fallen short of what many people need to buy and prepare healthy food.

Impact of TFP Increase

The update to the TFP resulted in a meaningful but modest SNAP benefit increase. The 21 percent increase in maximum SNAP benefits raised the average benefit from about \$4.25 per person per day (without the temporary, pandemic-related increases that are now in place but expire in the coming months) to about \$5.45 per person per day in Fiscal Year 2022. (See *Figure 4*.)

Figure 4. Thrifty Food Plan Revision Meaningfully Increased Average SNAP Benefits Per Person Per Day



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²¹ Steven Carlson, Joseph Llobrera, and Brynne Keith-Jennings, "More Adequate SNAP Benefits Would Help Millions of Participants Better Afford Food," CBPP, July 15, 2021, <https://www.cbpp.org/research/food-assistance/more-adequate-snap-benefits-would-help-millions-of-participants-better>.

Note: TFP = Thrifty Food Plan. Figures do not include temporary, pandemic-related SNAP benefit increases (likely to expire in coming months).

Source: CBPP analysis of 2019 SNAP household characteristics data for Fiscal Year 2022.

Reduces Poverty

About 2.4 million people, including more than one million children, will be lifted above the poverty line because of this modest increase, based on a CBPP estimate that uses the Supplemental Poverty Measure and Census data for 2017.²² The TFP adjustment is projected to cut the number of children participating in SNAP whose families have annual incomes below the poverty line by 15 percent and will reduce the number of children in poverty overall by 12 percent, we estimate. In addition, the TFP adjustment will reduce the severity of poverty for another 20.5 million people, including 6.2 million children.

Of the roughly 23 million people the change will lift above or closer to the poverty line, 9.4 million are white, 6.5 million are Latino, 5.3 million are Black, and 900,000 are Asian.²³

Improves Food Security

More adequate SNAP benefits can help reduce food insecurity, research shows. Those improvements can have long-term impacts, such as supporting economic mobility and reducing health care costs. Children participating in SNAP face lower risks of nutritional deficiencies and poor health, which can improve their health over their lifetimes. SNAP also can affect children's ability to succeed in school. One study, for example, found that test scores among students in SNAP households are highest for those receiving benefits 2 to 3 weeks before the test, suggesting that SNAP can help students learn and prepare for tests—and that when benefits run out and families are struggling to afford groceries, children's ability to learn is diminished.²⁴

Improving the adequacy of SNAP benefits is particularly important in addressing disproportionately high rates of food insecurity among Black and Latino households. Poverty and food insecurity rates are higher among Black and Latino households due to racism and structural factors, including unequal education, job, and housing opportunities, that contribute to income disparities.

Improves Nutritional Outcomes

These higher benefit levels will help households better afford a healthy diet featuring enough different fruit and vegetables, a recent USDA study simulating the impact of the benefit increase found.²⁵ And with fewer cost constraints on their food budgets, participating households can better meet dietary guidelines for fruit and vegetable consumption while leaving more of their benefits to purchase other types of nutritious foods.

In research we helped support, economists Michele Ver Ploeg and Chen Zhen found that increasing SNAP benefits is expected to increase spending on groceries, improve the dietary quality of food purchases, and increase the amount of key nutrients, such as iron and calcium.²⁶ In another study, economics professors Patricia

²²These CBPP estimates are based on the U.S. Census Bureau's March 2018 Current Population Survey, using tax year 2017 tax rules that account for the Tax Cuts and Jobs Act. They include corrections for underreported benefits from SNAP, Supplemental Security Income, and Temporary Assistance for Needy Families from the Department of Health and Human Services/Urban Institute Transfer Income Model (TRIM). At the time of the TFP adjustment, the most recent version of TRIM was based on tax year 2017. The estimates reflect a pre-pandemic economy and regular SNAP program rules and do not account for temporary measures enacted to help reduce hardship during the pandemic, such as the temporary increase in the Child Tax Credit.

²³Joseph Llobrera, Matt Saenz and Lauren Hall, "USDA Announces Important SNAP Benefit Modernization," CBPP, August 26, 2021, <https://www.cbpp.org/research/food-assistance/usda-announces-important-snap-benefit-modernization>.

²⁴Anna Gassman-Pines and Laura Bellows, "Food instability and academic achievement: a quasi-experiment using SNAP benefit timing," *American Educational Research Journal*, Vol. 55, No. 5, 2018, pp. 897–927, <http://journals.sagepub.com/doi/10.3102/0002831218761337>.

²⁵Sabrina Young and Hayden Stewart, "U.S. Fruit and Vegetable Affordability on the Thrifty Food Plan Depends on Purchasing Power and Safety Net Supports," *International Journal of Environmental Research and Public Health*, 19(5), February 2022, <https://www.mdpi.com/1660-4601/19/5/2772>.

²⁶Michele Ver Ploeg and Chen Zhen, "Changes in SNAP Benefit Levels and Food Spending and Diet Quality: Simulations from the National Household Food Acquisition and Purchase Survey," CBPP, May 12, 2022, <https://www.cbpp.org/research/food-assistance/changes-in-snap-benefit-levels-and-food-spending-and-diet-quality>.

Anderson and Kristin Butcher found that boosting SNAP benefits would raise not only the amount that low-income households spend on groceries but also the nutritional quality of the food purchased.²⁷

Anderson and Butcher estimated the impact of an increase in SNAP benefits of \$30 per person per month—slightly less than the \$36 per-person, per-month increase due to the TFP update. The researchers found that a \$30 monthly increase would result in about \$19 per person per month more in food spending. (This is less than the SNAP benefit increase because the added benefits free up household income for other necessities such as rent, utility bills, or non-food items that SNAP doesn't cover.) That increase in food spending, in turn, would raise consumption of more nutritious foods, notably, vegetables and certain healthy sources of protein (such as poultry and fish), and less fast food. The increased food spending would also reduce food insecurity among SNAP recipients.

Opportunities to Strengthen SNAP in the Next Farm Bill

There is strong evidence that SNAP is working well, but there are certainly parts of the program that should be improved. The coming farm bill is a time to address areas of the program that could be more effective. It is still early in the farm bill process, and this list is not comprehensive, but rather is meant to suggest possible areas for the Committee to consider.

Ensure SNAP Reaches More Low-income People Who Face Food Insecurity

USDA estimates in recent years, prior to the pandemic, that SNAP reached more than 80 percent of people who qualified for benefits. But some people face barriers to gaining access and either participate at lower rates or may not be eligible. A major area for consideration is how to strengthen SNAP to address the risk of food insecurity for these populations, many of whom are disproportionately people of color.

Bring parity to food assistance in Puerto Rico, American Samoa, and the Commonwealth of the Northern Mariana Islands. Despite higher levels of poverty than the rest of the U.S., these three Territories are excluded from SNAP (unlike Guam and the Virgin Islands) and instead receive block grants for nutrition assistance. Because of the block grants' low, capped levels, these territories have more limited eligibility and/or benefit levels and the programs are not able to respond to changes in need because of economic downturns or disasters.

For example, Puerto Rico's household food assistance program, the Nutrition Assistance Program (NAP, or PAN for its name in Spanish, Programa de Asistencia Nutricional) is one of the most important programs helping people meet basic needs in Puerto Rico. On average about 1.3 million people participated in NAP in 2018, about 2/5 of the territory's population. But because it is a capped block grant, NAP's support is more limited than SNAP. Puerto Rico sets eligibility and benefit levels to keep the program's cost within the fixed Federal funding limits, which means these levels aren't solely based on, and can't fully respond to, need.

As a result, under regular NAP rules (not including the recent temporary disaster benefits), a parent of two children who lost a job and had no other income received an average of \$376 in monthly NAP benefits in March through June 2019.²⁸ By comparison, a parent of two children who lost a job and had no other income would have received the maximum monthly SNAP benefit of about \$505 in the continental United States in 2019, and more in Alaska, Hawai'i, Guam, and the Virgin Islands. SNAP's funding structure also enables it to respond to changes in demand, including those due to natural disasters or recessions, which NAP, with its limited funding, can't.

Congress recently funded USDA to conduct research to help determine the information and changes that would be needed to transition Puerto Rico to SNAP, including administrative changes and the development of a methodology to determine SNAP benefit levels based on food price data and consumption data for Puerto Rico. The data used to estimate the Thrifty Food Plan for SNAP is not available for Puerto Rico, but available data on food prices suggests that they are higher in Puerto Rico than in other parts of the U.S.

Similarly, the Commonwealth of the Northern Mariana Islands (CNMI) receives insufficient funding for food assistance despite high levels of poverty. A 2016 USDA-funded study of the feasibility of including the CNMI in SNAP reported that more

²⁷ Patricia Anderson and Kristin Butcher, "The Relationships Among SNAP Benefits, Grocery Spending, Diet Quality, and the Adequacy of Low-Income Families' Resources," CBPP, June 14, 2016, <https://www.cbpp.org/research/food-assistance/the-relationships-among-snap-benefits-grocery-spending-diet-quality-and>.

²⁸ CBPP, "A Brief Overview of the Nutrition Assistance Program," <https://www.cbpp.org/research/food-assistance/a-brief-overview-of-the-nutrition-assistance-program>.

than half of the CNMI's population had income below the Federal poverty level, and median household income in the CNMI was less than half the median income in Guam, its nearest neighbor, and in the United States as a whole.²⁹ Like Puerto Rico, the CNMI has had to set eligibility and benefit levels far lower than in the states, the District of Columbia, and Guam and the Virgin Islands. Under a new memorandum of understanding, the CNMI's benefit amounts have increased, eligibility was expanded, and a contingency reserve fund was created to be available to meet unanticipated needs. But additional changes are needed to allow food assistance in the CNMI to reach full parity with SNAP.

USDA and Congress have made some progress in recent years in taking steps to address the needs in the territories, document the challenges, and assess the feasibility of changes that would be needed to bring parity to the food assistance provided to these territories' residents, but more needs to be done, in consultation with the territories, to achieve parity in food assistance.

End SNAP's 3 month time limit, which excludes many unemployed or underemployed workers. As described above, one of SNAP's harshest rules limits unemployed individuals aged 18 to 50 not living with children to 3 months of benefits in any 36 month period when they aren't employed or in a work or training program for at least 20 hours a week. This rule is a time limit on benefits and not a work requirement, as it is sometimes described, because states are not required to provide any way for an individual to meet the requirement—and most do not. Thus, an individual looking for work, or working fewer than 20 hours, will lose food assistance after 3 months.

Those subject to this rule have extremely low incomes and often face barriers to work such as a criminal justice history, racial discrimination, or health impairments. They also tend to have less education, which is associated with higher unemployment rates. In addition to being a harsh policy that takes critical food assistance away from people who need it without any significant positive impact on employment, the rule is one of the most administratively complex and error-prone aspects of SNAP law. Many states also believe the rule undermines their efforts to design meaningful work activities for adult SNAP recipients as the time limit imposes unrealistic dictates on the types of job training that will permit someone to continue to receive basic food assistance so they can eat. For these reasons, many states and anti-hunger advocates have long sought the rule's repeal or moderation.

Congress suspended the time limit during the COVID-19 public health emergency in recognition of the pandemic's effects on the labor market. Rep. Adams through H.R. 4077, the Closing the Meal Gap Act of 2021, and Rep. Lee, through H.R. 1753, the Improving Access to Nutrition Act of 2021, (both with numerous cosponsors) would end the time limit, restoring eligibility for many individuals who will have food assistance taken away once the public health emergency ends, regardless of their own circumstances, due to a misguided policy that has been shown to increase food insecurity while having no positive impact on employment.

Raise participation rates among eligible older adults. Many older adults have limited income from Social Security and or Supplemental Security Income and could benefit from SNAP benefits, which before the pandemic averaged about \$120 a month for households with members 60 years or older. But only about half (48 percent in 2019) of eligible adults aged 60 and over participate in SNAP, though participation rates have risen modestly in recent years.³⁰ Moreover, most who would qualify for SNAP also would qualify for Medicare Savings Programs, which defray Medicare premiums and/or cost-sharing charges for seniors near or below the poverty line who are not enrolled in the full Medicaid program, and for the Low-Income Subsidy for the Medicare Part D prescription drug benefit. But participation rates in these programs among low-income seniors also are very low. While these programs have similar eligibility rules, the differences can be confusing and older adults typically must apply for them via different duplicative processes and may not be aware of the assistance that is available.³¹ Tackling low participation rates

²⁹ Anne Peterson, *et al.*, "Assessing the Feasibility of Implementing SNAP in the Commonwealth of the Northern Mariana Islands," Insight Policy Research, USDA, Food and Nutrition Service, August 2016, <https://www.fns.usda.gov/snap/assessing-feasibility-implementing-supplemental-nutrition-assistance-program-commonwealth-northern>.

³⁰ Alma Vigil, "Trends in USDA Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2016 to Fiscal Year 2019," USDA, March 2022, <https://www.fns.usda.gov/snap/trends-participation-rates-fy-2016-2019>.

³¹ Medicaid and CHIP Payment and Access Commission, "Report to Congress on Medicaid and CHIP," Chapter 3, June 2020, <https://www.macpac.gov/wp-content/uploads/2020/06/June-2020-Report-to-Congress-on-Medicaid-and-CHIP.pdf>.

across programs would address food insecurity as well as help low-income seniors make ends meet overall.

Lower barriers to SNAP participation among certain immigrants and college students experiencing food insecurity. SNAP eligibility rules for immigrants and college students are very complicated. Many individuals in these groups who have low income and for whom assistance with affording food could ease hardship and help them improve their future health and economic well-being are not eligible for SNAP benefits. Others who do qualify are not aware they are eligible; are reluctant to participate out of concern about possible ramifications for their immigration status, even though those concerns are generally not accurate; or face barriers navigating SNAP's sometimes complicated and burdensome application procedures.

Participation by eligible people who are immigrants and children in families that include immigrant adults has decreased substantially in recent years, according to USDA estimates, likely due in large part to the Trump Administration's efforts to discourage immigration and to change the public charge rules to include SNAP and other health and economic support programs. Between 2016 and 2019, the participation rate for eligible people who are immigrants dropped from 66 percent to 55 percent and for children who are U.S. citizens who live with adults who are immigrants from 80 percent to 64 percent.³²

We recommend Congress consider how to improve access to SNAP for low-income immigrants and college students and other groups who cannot qualify or who have low participation rates because of confusion or because they face enrollment barriers.

Allow formerly incarcerated individuals with drug felony convictions to participate in SNAP. Denying food assistance to people who have completed their sentences makes it harder for them to get back on their feet and may contribute to high re-arrest rates, which are up to 50 percent for people with prior drug offenses.³³ Given that formerly incarcerated people also face barriers and discrimination in employment and housing, it's not surprising that 91 percent are food-insecure.³⁴ While most states have restored eligibility to *some* individuals affected by the ban, these limited restorations leave too many individuals who have completed their sentences and are complying with parole or probation ineligible for SNAP. SNAP's drug felon ban also disproportionately affects people of color, reflecting—and amplifying—the stark racial disparities in the criminal justice system, with impacts extending to these individuals' children and other family members.³⁵

Support Tribal sovereignty and strengthen food security in Native communities. American Indians and Alaska Natives experience food insecurity at a much higher rate than white people. The 2018 Farm Bill included administrative improvements to the Food Distribution on Indian Reservations (FDPIR) program, which provides food packages to Native American families who live in designated areas near reservations and in Oklahoma as an alternative to SNAP. The bill also authorized demonstration projects through which Indian Tribal Organizations, instead of USDA, can directly purchase commodities for their FDPIR food packages. Congress should work with tribal stakeholders to build on this progress and strengthen food security in Native communities.

Redesign SNAP Performance Measurement to be More Human Centered

SNAP's current performance measurement system emphasizes preventing improper payments. States and USDA take their roles as stewards of public funds seriously and have a rigorous measurement system in place to assess the accuracy of eligibility and benefit determinations. States are assessed fiscal penalties if their payment error rates are persistently too high.

When a household applies for SNAP it must report its income and other relevant information; a state eligibility worker interviews a household member and verifies the accuracy of information using third-party data matches, paper documentation from the household, and/or by contacting a knowledgeable party, such as an employer or landlord. When errors do occur they are overwhelmingly from unintention-

³² Vigil, *op cit*.

³³ Louis Reedt, *et al.*, "Recidivism Among Federal Drug Trafficking Offenders," United States Sentencing Commission, February 2017, <https://www.ussc.gov/research/research-reports/recidivism-among-federal-drug-trafficking-offenders>.

³⁴ Emily Wang, *et al.*, "A Pilot Study Examining Food Insecurity and HIV Risk Behaviors Among Individuals Recently Released From Prison," *AIDS Education and Prevention*, Vol. 25, Issue 2, 2013, pp. 123–123, <https://doi.org/10.1521/aeap.2013.25.2.112>.

³⁵ Marc Mauer, "The Changing Racial Dynamics of the War on Drugs," The Sentencing Project, April 2009, <https://www.sentencingproject.org/publications/the-changing-racial-dynamics-of-the-war-on-drugs/>.

tional mistakes by applicants or recipients, eligibility workers, or other state agency staff, rather than fraud.

It is critical that SNAP have a strong system in place to assess and address program integrity. But it is also important that the measures states and USDA take do not undermine the program's purpose to deliver food assistance to households that face difficulties affording an adequate, healthy diet.

Currently information is not available to policymakers or the public about how well SNAP is working in terms of the *human* experience of accessing benefits. The 2018 Farm Bill eliminated SNAP performance bonuses, which were tied to low or improving payment error rates, participation rates among eligible people, and delivering benefits promptly within Federal timelines. But states still are subject to fiscal penalties for high payment error rates, which places a disproportionate emphasis on payment accuracy over access for low-income families.

In collaboration with the Center on Budget and Policy Priorities, Code for America developed a National Safety Net Scorecard to put forward a package of metrics that Federal and state governments could use to track program performance over time and across states or other jurisdictions.

The measures in the National Safety Net Scorecard measure performance across three categories:

- **Equitable access:** These metrics help assess whether the programs are open to all eligible people. Are online, telephone, and in-person services available and accessible to all people? How difficult is it to apply? Are people who apply satisfied with their experience?
- **Effective delivery:** Measures in this category examine the smoothness of the process after a person applies. How long does it take to receive benefits? How common is it for cases to be denied for procedural reasons as opposed to reasons related to financial eligibility? Are people who remain eligible able to successfully maintain eligibility?
- **Compassionate integrity:** Finally, this category assesses whether people are receiving the benefits to which they are entitled. What share of eligible people participate? How accurate are eligibility and benefit determinations? How smooth is the appeals process?

Some states measure some of these types of metrics as part of their operations or to make the case to the public that they are running successful programs. But there is a need for leadership to make progress toward this vision through Federal legislation in the farm bill, administrative action, and further state innovation.

Ensure SNAP Program Operations and Oversight Keep Pace With Technology

The farm bill presents an important opportunity to reassess program operations and ensure SNAP keeps pace with technological and other changes. The pandemic has presented challenges and opportunities that resulted in the program adapting quickly out of necessity. Some technological changes, such as online shopping and remote eligibility practices, that probably would have occurred over time did so instead on an accelerated timeframe. Below are some areas Congress should consider to support these advancements.

- **Online purchases.** Probably the best example of an accelerated timeframe around technology is the rapid expansion of online purchases during the pandemic. Though less than ten percent of SNAP benefits are redeemed online, USDA rapidly expanded the number of states and the number of stores that allow recipients to redeem their benefits online. The provisions from the last two farm bills that piloted and studied online benefits were a big reason that USDA, states, and retailers were able to expand so quickly during the pandemic. This next farm bill presents an opportunity to continue the progress from recent years and improve access to online benefits for participants.
- **EBT.** The original roll-out of EBT revolutionized SNAP benefit delivery, beginning more than 30 years ago. The Committee should consider, in collaboration with USDA and other stakeholders, whether to incorporate advancements in retail transactions, such as mobile payment options, while protecting program integrity and ease of use for participants.
- **The National Accuracy Clearinghouse (NAC).** The 2018 Farm Bill provided that USDA and states should expand to nationwide a pilot program that several states use to share data on their SNAP participants and prevent individuals from participating in more than one state. An evaluation of the NAC found that less than 0.2 percent of SNAP participants were participating in multiple states. In addition to improving program integrity, the NAC holds promise as a customer service improvement for applicants because it can help participants

who move from one state to another disenroll more quickly from benefits in their former home state so that their new home state can open their SNAP case. Congress should monitor the roll out of the NAC nationwide, which is underway and expected to accelerate later this year, to ensure that it does not pose challenges to privacy or vulnerable individuals' access to benefits.

- **Ensuring accessibility of certification and recertification.** Gradually over recent decades, SNAP and other income support and health programs have transformed from very labor intensive in-person application and recertification processes to making far greater use of online, telephone, and other technological tools. States adapted and expanded these tools very quickly during the pandemic when they needed to move to remote operations. These tools, combined with the temporary flexibilities that Congress and USDA allowed during the pandemic, helped states manage their workloads and helped participants gain and maintain access to the program.

Congress should consider revisions to SNAP rules that would support the use of technology in the SNAP certification process. For example, telephonic signatures and text messaging have shown promise in improving access for some households. Making use of available electronic data sources, when relevant, timely, and accurate can lower documentation burdens on households and state agencies. However, technology does not work for all SNAP households. For example, some households do not have telephones or internet access. Some households, including some with elderly or disabled members and those experiencing homelessness, may prefer an in-person process rather than navigating online and telephone communications. It is important that the program balance the use of promising technology with ensuring that states' certification processes are accessible to everyone.

The recertification process is another area the Committee could focus on where technology could be used to improve customer service. Most households need to reapply for SNAP every year (or for every 2 years for households with elderly or disabled members) and are required to submit periodic reports about changes in income and some other circumstances halfway through that period. But the recertification and reporting processes present hurdles for many households that result in eligible households losing out on benefits because of mail issues, difficulty scheduling telephone issues, a verification problem, or other procedural issues. Funding to support states making more use of certain technological advancements such as text messaging, reliable third-party data sources, or information from other programs could help keep eligible households connected to SNAP and save state agencies from needing to spend more time processing re-applications from households that lose benefits for procedural reasons.

- **Using data for outreach and enrollment.** Many individuals and families who have low incomes qualify for a package of benefit programs, but they often need to apply separately and provide paperwork multiple times to apply for and maintain different benefits. In some cases, a program can use data (such as income) that another trusted program has collected and verified to reduce burdens on state and local administrators and enable applicants to avoid having to provide the same paperwork to multiple offices. For example, all participants in SNAP, Medicaid, and Temporary Assistance for Needy Families monthly cash assistance are "adjunctively eligible" for WIC, which means the WIC program does not need to redetermine financial eligibility, but the family still must contact the WIC agency to apply.³⁶

In other cases states can use information provided to one program to trigger an application for another program, using a check box, for example, or for targeted outreach. These kinds of linkages hold substantial promise to improve efficiency and program participation but can be tricky for states and the Federal Government because of different administrative and jurisdictional structures. But leadership from Congress in creating the legal authorities and the expectation of cross-program enrollment, collecting and sharing data and best practices, and offering funding to support these efforts could help elevate the issue and smooth the way.

³⁶ Sonal Ambegaokar, Zoë Neuberger, and Dorothy Rosenbaum, "Opportunities to Streamline Enrollment Across Public Benefit Programs," Social Interest Solutions and Center on Budget and Policy Priorities, November 2, 2017, <https://www.cbpp.org/research/poverty-and-inequality/opportunities-to-streamline-enrollment-across-public-benefit>.

Conclusion

SNAP is a highly effective program that alleviates hunger and poverty, has positive impacts on the long-term outcomes of those who receive its benefits, and supports people in low-paid jobs and those between jobs. While there are ways in which SNAP could be improved, I urge you to protect SNAP so that it can continue to play its critical role in supporting food security and to make changes that will strengthen its effectiveness, particularly among racial and ethnic groups with high rates of food insecurity due to historical structural inequities.

The CHAIRWOMAN. Thank you to all our witnesses for your very powerful and informative testimony.

At this time, Members will be recognized for questions in the order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes in order to allow us as much time as possible to get through questions. Please keep your microphones muted until you are recognized in order to minimize background noise.

I will now begin with the gentleman from Massachusetts, Mr. McGovern. If you are on the panel, you are recognized for 5 minutes for your questions.

I am sorry. Mr. McGovern is not here. I now recognize the gentleman from Illinois, Mr. Rush.

How about the gentleman from California, Mr. Carbajal?

The gentleman from Florida, Mr. Lawson, you are now recognized for 5 minutes.

Mr. Lawson, we can't hear you. If you can unmute yourself.

Mr. LAWSON. Okay. I think you can hear me now.

The CHAIRWOMAN. Yes, sir. Please begin.

Mr. LAWSON. Okay. Madam Chairwoman and Ranking Member Bacon, I want to thank you all for having this hearing. One of the first things that I want to talk about is—and I guess this goes to Mr. Beal. In your testimony, Mr. Beal, you mentioned that the SNAP program kept a large number of small grocery stores in business. They might not exist right now during this pandemic. Could you further elaborate on that? And I am very interested in that statement that you made.

Mr. BEAL. Certainly, Representative. Yes, we operate stores on both sides of the state line. We operate stores in more affluent areas. We operate stores in more demographically challenged areas. As an example of what I mean by that, we recently—actually last July—opened a brand-new store. It was a replacement store that was in an area where over 25 percent of our total store sales are SNAP customers. And our store was losing money in that location. It was underserving the market. And we opened a new store in what would have otherwise been considered a food desert. And the residents and all the customers around that store were so grateful. They consider it their store. We are so proud to be a part of the community.

We know of another situation in Kansas City where a grocer closed the doors and couldn't get another grocer to go in. It was purchased by the landlord, who was a nonprofit agency in a predominantly Black customer base, as well as administrative. Our company worked with that landlord who now became a grocery owner for 18 months to help them get into the business, to learn the business. But they would not have a store in that area but for the SNAP program because so many of their customers and con-

stituents were on SNAP benefits. And we did this because we are a community partner. We didn't charge anything for paying all their bills, for paying their payroll. It wasn't our bank account. It was their cash. But we provided all those administrative services for 18 months to help them get in the business. And I assure you that had it not been for SNAP, that store wouldn't have survived, and neither would our new store have opened up in the area that we opened the new store last July.

Mr. LAWSON. Okay. Thank you. Now, Mr. Beal, there are specific ways that Congress can support these retailers and growers in the upcoming farm bill to make it easier for them to participate in SNAP online purchasing program. Do you have any recommendations that you could give to us for this farm bill?

Mr. BEAL. Certainly. The online SNAP process is very complicated. There are really three areas that I would like to share with the Committee that could be very helpful. First, NGA in particular would love the USDA to create a technical assistance center, and we believe that will go a long way toward solving these three issues. But, the first thing is there are no clear guidelines in terms of what it takes to get certified as an online SNAP grocer. There is nowhere to go. There is no central repository, no portal, anything we can go to. And so, each retailer is kind of out there on their own to try and figure out how to get online-certified.

Second is that when you do attempt to do this, you can send a letter of intent to the USDA, and it is like sending something out into a black hole. We don't get any kind of acknowledgment that the letter of intent or the inquiry has been received. You don't hear anything back from them. It could be 6 weeks, it could be 9 weeks, it could be something longer. You don't even have any idea whether you sent it to the right party.

And third, when it comes to certifying for online SNAP, the certification process is much different from what the states do with the WIC program, where the whole platform is certified. But with online SNAP, it is every single banner that an operator operates that has to get certified, even if the platform itself is the same and the only difference is the pricing on the products and the name on the banner. And, as I mentioned, we operate a number of different banners in our company; predominantly two, but we operate four different banners overall. And so, for us to certify—and that certification could be anywhere from 9 months to a year to get certified you have to go through that process with every single banner and not with the individual platform. So it is very, very cumbersome. And if the Committee could address those issues, particularly with a technical assistance center, it would be much appreciated by independent grocers.

Mr. LAWSON. Okay. Thank you. Very good. Madam Chairwoman, my time is running out, but if I get a chance at the end to talk a little bit more about students' access to SNAP. With that, I yield back.

The CHAIRWOMAN. Thank you so much, Mr. Lawson.

I now recognize the gentleman from Nebraska, Ranking Member Bacon.

Mr. BACON. Thank you, Madam Chairwoman, and I appreciate the opening comments from all three of our panelists today. And

my first questions are for Mr. Giacomo and Mrs. Cox. How can we better promote healthy foods for SNAP recipients? What are some logical, good ways we could help urge healthier eating? And I will go to Mr. Giacomo first.

Mr. GIACOMI. Thank you, Representative. I am very proud in the work that we do here on our SNAP Nutrition Education Program. I would love to see further investment in that program. That program goes out and meets people where they are at, looking at their dietary needs, and provides them with nutrition education, with exercise, with meals, things of that nature that allows that.

Second, I would say that, as Mr. Beal mentioned in his testimony, healthy nutrition incentive programs are definitely a way in which we could promote healthier eating. If you incentivize individuals by saying we will provide you with a rebate refund, additional SNAP dollars for all fruits and vegetables, things of that nature that you purchase, I believe that in itself would promote and would allow individuals to purchase these items and further stretch out the benefits that they receive each month.

Mr. BACON. Thank you, Mr. Giacomo. Mrs. Cox?

Mrs. COX. Thank you. Yes, so SNAP enables households to afford more healthy food, right? The fact that they are able to get these benefits, the other income they have, they are able to shuffle it around and purchase the food.

A couple of things. So, SNAP benefits, since they only can be purchased in grocery stores, they are actually more likely to purchase food that is healthier because the food in a grocery store is usually healthier than food that is purchased outside at a restaurant. Also, as both Mr. Giacomo and Mr. Beal said, there are the fresh incentives. And so, in a prior position that I had at AARP Foundation, we actually operated a pilot for older adults in Fort Lauderdale, Florida, where those who had hypertension, high blood pressure, or obesity, we actually gave them a gift card to purchase at a grocery store where they could only buy fresh fruits or vegetables or frozen vegetables. And we saw real change in their A1C, their hypertension, and their high blood pressure 3 and 6 months later. So, while the research doesn't show that restricting food makes people purchase more healthy food, we do see that incentives—when you are actually giving people Double Up Bucks or some other incentive to purchase fresh fruits and vegetables—works.

Mr. BACON. Thank you. I find it very insightful. A question for Mr. Beal. We have had some discussions in the past about what Mrs. Cox referred to about restricting what foods you could buy if they are unhealthy. And there is a lot of debate—is cranberry juice healthy and diet sodas not? I mean, there are a lot of different debates on this. But the main thing that we hear from—is from the grocery stores—how hard it would be to administer a program like that. Could you give us some insights on that as well? Because I think that that is a key factor in limiting what we can really do here. Go ahead.

Mr. BEAL. Thank you for offering me a chance to answer that question, because in our experience, we do participate in the Double Up Food Bucks Program. I testified in November 2016 regarding that, and we have been running that program now for 7 years,

and, as in Mrs. Cox's testimony, that has resulted in better food nutrition for those beneficiaries.

So, before we switched POS systems, we had what is called a loyalty program. And you may be familiar with a loyalty card that many grocers offer where you can track the purchases and stuff. And we had a system that was what I would call a Cadillac or the Maserati that made it very, very easy for us to conduct the Double Up Food Bucks Program. After we were forced to switch POS programs for other issues, we found out it became very challenging because the issue is on the Double Up Food Programs there is incentives provided for fresh produce purchasing, but the SNAP benefit is a tender type, okay? And so that transaction needs to know that it is only paying for, under the Double Up Food Bucks, fresh fruits and vegetables. And typically, the tender type doesn't know anything about what is in the order. It just knows the totals. And that is the reason for having and requesting a technical assistance center through the USDA that can help grocers marry up the two, what is in the order along with the payment.

We work with a local agency, nonprofit agency by the name of Mid-America Regional Council, MARC, that administers the program. And it is very cumbersome, but we do it in our stores, all 26 stores, to help provide that benefit. We're getting ready, MARC is getting ready to write a grant similar to what Mrs. Cox mentioned where we can participate in a program where doctors will write scripts that would be funded by a gift card program through the GusNIP program for SNAP customers, Medicaid customers, to just purchase fresh fruits and vegetables. But that is what the challenge is, is that the form of payment doesn't realize what is in the order. And you need to know that to make sure that you are only paying for what you want.

Mr. BACON. Thank you very much. My time has expired.

Mr. BEAL. Sorry.

The CHAIRWOMAN. Don't be sorry. That was really good information. Thank you.

I now recognize the gentleman from Massachusetts, Mr. McGovern. You can unmute and begin your questioning for 5 minutes.

Mr. MCGOVERN. Thank you, Madam Chairwoman. First of all, thank you for holding this hearing. And I want to thank the Administration for all it has done during the public health emergency to improve access to SNAP and the important but overdue increase in benefits for the Thrifty Food Plan.

And I want to start by reminding everyone that COVID showed us just how easily people can fall from stability into instability. And while our world continues to be unpredictable, it is essential that people know that there is support for them when times get hard.

So yesterday, I had a meeting with Dawn Pierce, who is from Idaho. She is going to be speaking at one of the upcoming listening sessions for the White House Conference on Hunger, Nutrition, and Health. But a few years back, she was working as a hospice nurse. And despite being someone who was taking care of other people's loved ones, she found herself in a place where she couldn't financially take care of her own loved ones. And she told me her story. And the thing that stuck out to me the most was that she was ridi-

culed multiple times at the grocery store when she was buying food for her family using her EBT card. In fact, she was told that, quote, “She didn’t look like someone who was on food stamps.”

And the reality is that the stigma starts with the rhetoric that comes out of this place, out of the Capitol. The stereotypes about people using SNAP are harmful and simply not true. And I know these stereotypes are advanced because there are some who are trying to push an agenda to try to diminish the program or cut the program. The fact of the matter is, is that $\frac{3}{4}$ of SNAP households with at least one working-age, non-disabled adult work while receiving SNAP. And we know that the harsh time limit for SNAP of 3 months of enrollment without a job does not increase employment. It throws people off of benefits and increases hunger. And yet there are people who still are holding onto that as something that we need to enshrine.

The bottom line is that people who aren’t working, and who are on SNAP, are often children, seniors, and disabled adults. And most participants who can work, do so. So, I really get frustrated when people spend their time trying to make it harder for people to access SNAP as if everybody’s dream is to be financially insecure enough to be on SNAP. Access to SNAP helps people move their lives forward faster.

And so, we need to start treating people with dignity, and how we draft and pass the next farm bill, starting here in this room, can send one of two messages: that we either care about people and we understand the importance of SNAP for people who are experiencing hard times, or we do not.

And I will just also say that many of the waivers put in place during the COVID-19 emergency just made life easier for people. And it will be a missed opportunity on our part if we do not reauthorize them before they expire.

So let me end by saying that if seeing your constituents and Americans across this country waiting in lines at food banks during COVID doesn’t move us all to do something more and appreciate the importance of programs like SNAP, I am not sure anything will. And let me be clear. I will not support any farm bill that guts the nutrition safety net for millions of Americans. I am not going to support passing legislation that increases hunger in this country. We have an opportunity to have a more thoughtful discussion in the aftermath of COVID. Again, I want to thank the Administration for their leadership and their sensitivity during this difficult time.

SNAP is an important program that deserves our support. And by the way, it also helps our farmers. There is an economic stimulus to this benefit as well. So, I just want to go on record to say as we look at the next farm bill, we need to find ways to strengthen the program, and we need to learn from its successes in the recent months. And again, Madam Chairwoman, thank you for your leadership on this, and I look forward to working with you as we move forward on the next farm bill.

The CHAIRWOMAN. Are you yielding back? You still have time, Mr. McGovern.

Mr. MCGOVERN. Well, I mean, again, the only other thing I would say is that it is important for us to talk to people with lived

experiences because, oftentimes, we say things in this Committee or on the House floor that may make a good soundbite in some circles but do not reflect the reality of what people are experiencing in this country. So, I have been talking to a lot of people with lived experiences, and SNAP has been a lifeline for them and their families. So, again, this needs to be an important part of the farm bill, one in which we strengthen the program and not try to punish people or try to diminish people who need the benefit.

And with that, I yield back.

The CHAIRWOMAN. Thank you, Mr. McGovern. Thank you for your partnership. Now, your time has expired.

I now recognize the gentleman from Pennsylvania. Mr. Thompson, you are recognized for 5 minutes for questions.

Mr. THOMPSON. Thank you, Madam Chairwoman.

Mr. Beal, when trying to get into the weeds, which is what we need to do with this farm bill, is preparing for the next one. And thank you all for your kind comments about the 2018 Farm Bill. I was the Nutrition Subcommittee Chairman during that process. It is near and dear to my heart. As a young couple, my wife and I, not under the Agriculture Committee jurisdiction, but Education and Labor, we were on the WIC program starting out as a young couple when we were expecting our first child, so I appreciate these programs. I want to make sure they are done right. I want to make sure that they are pathways to opportunity, meeting the immediate nutritional needs of these families who find themselves usually temporarily in financial distress. And the question is, how do we help them also move out of financial distress?

But my question is more of a technical question for you. I just had the check in. When section 4006 of the 2018 Farm Bill was drafted, when that was done, policymakers were very clear it was temporary. There basically was a moratorium on the processing fees because that had gotten to be a problem for our vendors, our independent grocers, our large grocery stores, our convenience stores. And so, we basically did a 5 year prohibition. But we also asked that, while providing interim certainty, that an expectation that stakeholders would all come to the table to coordinate and find practical compromises for this next farm bill, which, as we all know—so we have basically just under $\frac{1}{3}$ of this farm bill is left. Nineteen months from now it expires. We need to be prepared to reauthorize.

To the best of your knowledge, can you tell me about how that has been complied with? What has been the effort to stakeholders to come together to kind of coordinate and find practical compromise with the processors on these fees, so we have some suggested recommendations and solutions going into the next farm bill.

Mr. BEAL. Thank you for your question, sir. I can only speak from personal experience, but I will tell you of a recent experience that I had that kind of demonstrates what the quandary is. And, I am not a member of the board of NGA or FMI, which is Food Marketing Institute, but I do know that our wholesaler, Associate Wholesale Grocers out of Kansas City, it is a significant independent co-op. They held a roundtable discussion about 3 weeks ago Friday, maybe 4. Senator Marshall was there, and it was a dis-

cussion concerning EBT and electronic fees. You might be impressed with some of the parties that were there, but representatives from Kroger, from Walmart, many independent grocers, many state association convenience stores were there, and they were places for members of the banking community to be there. MasterCard and Visa did not send anybody to represent to sit down and talk about that, about the issues facing us.

I do know that most grocers make, on average, if they are lucky, one percent. I am not talking about the big public companies.

Mr. THOMPSON. Yes.

Mr. BEAL. And I will tell you that our credit card fees and debit fees, which debit is much preferred, was more than 1.12 percent of our business. And we don't get 100 percent of our tenders paid with credit card fees. But every time that there is a class-action settlement with the industry, and it has happened at least three times over the last 24 years I have been back in the grocery business, the rates just go up that the retailers get charged to pay for their fees. And I do know we have had a number of discussions amongst committees, other grocers about how the argument that there is so much fraud and stuff that is out there that they have to pay for with their fees can be easily simplified and totally abolished with the use of a PIN, with a credit card like they do in the majority of Europe. And so, the technology is out there. That is the same credit card companies, Visa and MasterCard. But there has, to my knowledge, been no discussion jointly with the banking industry and Visa and MasterCard to try and reduce the fees and rein them in. And we have the highest fees, credit card, electronic payment fees of any country in the world that I am aware of. And many countries have done something about it. So, we would welcome the opportunity.

Mr. THOMPSON. Well, I appreciate the effort that was made on this, very much so. And I am disappointed in, the stakeholders, as you had mentioned, that failed to show that this was—the expectation was set forth in the farm bill was for all the key stakeholders, not just the folks in the grocery business, the retail business, but quite frankly, also the processors. And, I would encourage them. We have a little shy of $\frac{1}{3}$ of the term of this farm bill left to go, I guess, before this one expires. And my expectation is the processors would come to the table and join you all to have a part, whether you were able to come to some agreement or some reasonable agreement that is left to be seen. But there is no excuse not to be at the table for the discussion.

Mr. BEAL. Can I clarify one thing just for the sake of factual.

Mr. THOMPSON. Please.

Mr. BEAL. Any time we are working with electronic payments, there is a processor which really just takes all the payments from the retailer and sends them off to basically MasterCard, Visa, and Discover.

Mr. THOMPSON. Right.

Mr. BEAL. So, it is not really the processors who charge a fixed fee per transaction, and it is well less than 1¢ in most cases, at least in our industry. It is Visa, MasterCard, Discover, Amex—the most expensive that actually charge the fees that we get hit with. And the chargebacks that we are still getting hit with, even though

they have come out with security on the EMV cards, still exist to this day, regardless of what they say. We would welcome that opportunity, but it is going to take a push from Members of Congress and from the committees to make that happen in my opinion.

Mr. THOMPSON. Thank you very much. Thank you, Madam Chairwoman.

The CHAIRWOMAN. Thank you, Ranking Member Thompson.

I now recognize the gentleman from California. I remind Members to keep their comments to 5 minutes. We extend some grace to our Ranking Member because he is our Ranking Member. Thank you.

Mr. Carbajal, please unmute and begin.

Mr. CARBAJAL. Thank you very much, Madam Chairwoman, and thank you to the witnesses here today testifying.

SNAP is critical to ensuring millions of Americans do not go hungry. When SNAP recipients use their benefits, Congress should not be overly scrutinizing every single purchase. We should let families make decisions, as other families do, that are best for them.

I certainly share the goal of many of my colleagues interested in promoting healthier eating by SNAP recipients and making sure that, like the rest of America, they get as much education as possible. But a few of my colleagues are doing more to regulate the ability of a SNAP recipient to buy a bag of chips than they are to ensure that someone purchasing an AR-15 is not a danger to others or themselves and/or qualified to own such a gun.

We also don't see near this level of scrutiny when the United States Government provides oil companies with subsidies. Sure, they could spend those subsidies however they want. We know that the USDA has proven that dietary habits of SNAP participants and non-participants are very similar. We know that participation in SNAP is linked with improved nutritional outcomes, compared to non-participants at similar income levels. We also know that SNAP is a successful public-private partnership, and for every \$1 the government spends on SNAP, up to \$1.50 is returned to the economy. There is a positive return to the economy from this very important program, and there is no evidence that SNAP purchases are contributing to poorer health outcomes.

Mr. Beal, can you elaborate on what benefits you see consumers and businesses receiving from a system that incentivizes healthy food choices instead of limiting what food SNAP recipients can purchase?

Mr. BEAL. I am not exactly certain what you are asking, but I can tell you from our participation with the Double Up Food Bucks Program, and not only do we work with MARC, the local agency, but the University of Kansas Medical Center, and they have actually done studies on improved health outcomes, similar to what Mrs. Cox mentioned with regard to the prescription program.

I also can tell you that when I have worked with the State of Kansas and Missouri—particularly Kansas, when they were considering a sugar tax on products that are being sold in stores—that it is very similar to the to the situation where we talked about restriction of certain food choices. Where the industry, the retailers, the people that have to abide by these rules and regulations would be left in a quandary and a great deal of uncertainty as to what

items would qualify if we started going down that road to limit choice. One person's version of what is healthy compared to somebody else and we could get nutritionists who would generally agree, but necessarily not agreeing on everything would be a bureaucratic nightmare for the USDA, but also for all the grocers that are asked to enforce a program and honor the program. And I would expect that there would be compliance issues and inspections, like there are today.

And so, not knowing what the specifics would be of what items would qualify or not, but to allow customers the choice, my personal view is—not NGA's—that that incentives like what we are talking about with the Double Up Food Bucks and with the prescription program, where we can actually focus on people's health outcomes and healthier eating, is a very, very strong way to go and would maximize the opportunities for people to improve health outcomes as well. I don't know if I answered your question.

Mr. CARBAJAL. Thank you. You did very good for not understanding my question completely. So, you did great. Thank you.

Mrs. Cox, in your testimony, you mentioned how food insecurity can cause long-term harm to children and families. Can you speak more to how hunger can impact life outcomes, and conversely, the benefits of SNAP on educational achievement and health outcomes?

Mrs. COX. Sure. Thanks for the question. So, we know that food insecurity impacts a child's ability to learn, pay attention in school, and grow. And so, research shows that children participating in SNAP, they face lower risk of nutritional deficiencies and poor health, which can improve their health over their lifetime. Also, SNAP helps children succeed in school, right? We understand that when children are hungry, they are not able to pay attention and they are also having behavioral issues.

There was a study that found that test scores among students in SNAP households are highest for those receiving benefits 2 or 3 weeks before the test. So, that suggests that SNAP can help students learn and prepare for tests and that when benefits run out and families are struggling for groceries, children's ability to learn is diminished.

To the last piece of just kind of the importance of SNAP for children overall, when children are fed, they are able to learn, they are able to pay attention, and they are able to grow. And I think that SNAP is an investment in long-term outcomes for our children and the health of our country.

Mr. CARBAJAL. Thank you very much. I am out of time. I yield back, Madam Chairwoman.

The CHAIRWOMAN. Right in the middle of a sip of water. Thank you so much, Mr. Carbajal.

I now recognize the gentleman from Tennessee, Mr. DesJarlais. If you are on the platform, can you unmute and begin your questions?

Mr. DESJARLAIS. I am. Thank you, Madam Chairwoman. I appreciate the opportunity to participate, and I thank the witnesses for participating in what is a very timely hearing. Considering the pending global food shortage, the record inflation, the price and cost of groceries, people are struggling all across the country. And, we want to make sure going into next year with this farm bill that

we have all the information and data we need to make sure that this program is stable and that we can provide it to the people who really need it.

And, Mr. Giacomi, I wanted to ask you a few questions as we prepare for this monumental task in the upcoming year. During the early days of the pandemic, your Connecticut Department of Social Services experienced a high of nearly 4,700 applicants arriving weekly, which was a 330 percent increase in the number of applications received weekly prior to the start of the pandemic. And now you are still receiving over 3,000 applications per week, which is up 176 percent.

So, I struggle a little bit with these numbers. One, I want to talk a little bit about work requirements; but two, businesses all across the country, certainly not just across Tennessee's 4th District, are struggling with labor shortages. And it is estimated from the U.S. Chambers of Commerce that we have 11.4 million job openings right now and up to six million unemployment workers. So, it looks like there is about two jobs for every worker that is out there looking for jobs. So, what are you finding in Connecticut in terms of people trying to find work that can't? Are you keeping any data on this? And are there any current requirements that people are seeking work?

Mr. GIACOMI. Thank you, Representative. The Department of Social Services does not track employment data to that extent. What we do track is we do have a very robust employment and training program, in regards to SNAP, which allows SNAP recipients not receiving TANF to have training in all sorts of industries, especially those that are most in need right now when you look at manufacturing, health care, *et cetera*. What we are seeing is individuals are still participating very robustly. They are attending our community college programs, our community-based organizations. They are able to come out with these degrees or certificates, and they are able to find employment, which then essentially—or hopefully—the intent is to allow them to be in a position to support themselves and no longer need assistance.

Mr. DESJARLAIS. Yes, I mean, that sounds good, but it doesn't reconcile with those numbers. The numbers that you are still seeing that are applying in this program that you say is effective doesn't seem to be working based on those numbers.

Again, trying to help us here as we write this farm bill, why do you suggest the necessity of broad-based categorical eligibility is so important when others consider it to be a loophole where people that are maybe wealthy are not necessarily qualified for SNAP continue to get benefits?

Mr. GIACOMI. So, I will say with broad-based categorical eligibility, it is not an automatic funnel into the program itself. While it allows us to give individuals, especially those in working families, the opportunity to apply and not necessarily be automatically rejected because of their gross income, they still do have to meet a net income test of a 100 percent of the FPL before they are able to receive assistance. So, those individuals that perhaps are wealthier or otherwise that are able to apply and perhaps get in the door under a 185 percent FPL still have to show us that their

need is there, and they meet this net income test prior to us providing them any benefits.

Mr. DESJARLAIS. Do you track at all? I mean, with the influx of illegal immigration across the southern border and it is record numbers, and this is going to obviously cause a drain on the SNAP program, are you tracking that at all?

Mr. GIACOMI. We do have numbers on those that are applying. I will say that if an adult comes in and is not identified as a permanent resident or in a qualifying category, they would not be eligible for assistance. So, we are not necessarily tracking the number of individuals that are coming in that we are denying because of this reason.

Mr. DESJARLAIS. Yes, I am just going to interrupt because my time is short. That is a talking point that I say you can Google how many non-U.S. citizens receive SNAP, and it says it is very difficult to get it. But that is not actually true because if you are a child under 18 or if you say you are seeking asylum, which pretty much everybody is right now, it is refugee status or asylum-seeking. So, all these people do qualify for the SNAP program, and for some reason we just want to ignore that. There is going to be a global food shortage. Americans are hungry, and we need to worry about taking care of Americans first.

And my time has expired. But I thank you for your participation.

Mr. GIACOMI. Thank you, Madam Chair, if I may respond really quickly to clarify my statement.

[The information referred to is located on p. 922.]

The CHAIRWOMAN. And we will get back to you on that, sir, please. I will give you time. Thank you.

The gentleman yields back.

I will just add something for the record. Only U.S. citizens and certain lawfully present non-citizens may receive SNAP benefits. Non-citizens who are eligible based on their immigration status must also meet other SNAP eligibility requirements, such as income and resource limits. Some specific, very specific, non-citizen groups are eligible without a waiting period, and they include refugees, asylees, victims of trafficking, Iraq and Afghan immigrants who worked as translators, interpreters, or were employed by the U.S. Government and received special immigrant visas. Other non-citizens can be considered after a waiting period if they are a legal, permanent resident and have worked for 10 years or of another qualifying status for 5 years. So, the idea that undocumented immigrants who are coming over the border automatically qualify for benefits like SNAP is just not true.

Mr. DESJARLAIS. Well, Madam Chairwoman—

The CHAIRWOMAN. I now recognize the gentlewoman from New Hampshire—

Mr. DESJARLAIS.—with all due respect, if you are going to reclaim my time, Madam Chair—

The CHAIRWOMAN.—Representative Kuster, you have 5 minutes. You can unmute yourself and begin your questioning.

Ms. KUSTER. Thank you, Madam Chairwoman, and thank you for that important clarification. And I think that is an example of what Representative McGovern was talking about with the stigma

and the inaccurate information that has been spread about people who need assistance to keep their children fed.

I appreciate this hearing, and I know this is not directly germane to SNAP, but I do want to mention, particularly after the last exchange, that food security programs are interwoven. And I cannot let this opportunity pass without commenting on the approaching cliff that students are facing when the school meal pandemic waiver expires at the end of this month.

Let's remember—and we have heard testimony today to this effect—children cannot learn when they are hungry. And I strongly believe that universal free school meals are a sensible investment in our young people and in the future of this country and our economy. Even if we don't pursue universal meals now—and by the way, for the record, I believe we should—letting these waivers expire will have a painful and abrupt impact upon students and their families, as well as creating an administrative nightmare for our schools. It does not need to happen this way. We have been at the ready to advance a reasonable extension in the House, and I hope that the Senate will get on board before we reach that cliff in just a few weeks.

Now, having said that, let me turn back to SNAP and how we can use the 2023 Farm Bill to continue to strengthen this critical lifeline for American families. As I mentioned at our hearing earlier this spring with Under Secretary Dean, I believe that the SNAP program's administrative flexibilities granted since 2020 have made an incredible difference in mitigating hunger throughout the COVID-19 pandemic. I have introduced legislation to make permanent the telephonic signature flexibility, which allows states to process SNAP applications without expensive technology and saves applicants from having to make the trip to a state office just to fill out paperwork.

Mr. Giacomi mentioned several of these COVID relief flexibilities in his testimony, including telephonic signatures. So, Mr. Giacomi, let me turn to you. Could you elaborate on the impact that the flexibilities have had on the ground, both for your department's administrative work and how families have been helped in securing benefits that they so desperately needed during COVID?

Mr. GIACOMI. Certainly. And thank you for the question. The flexibilities that we received throughout the public health emergency have been pivotal to our success in our ability to be able to serve the residents of Connecticut for the past 2 years. It was in March of 2020 that, quite suddenly, our offices closed for a period of time due to a shutdown here in Connecticut. And we had to pivot to a new way of serving individuals that perhaps we had been unable to do prior or were not experienced in doing. So, things such as that telephonic signature that you mentioned allowed us to have these individuals call us on the telephone, not be burdened to come into the office to find a closed door, not to try and have to go to the library or other institution that has internet access, or things of that nature in order to receive assistance. They were able to call us up on the telephone.

It also helped us to reduce churn, or the period of time that an individual is receiving and then perhaps is closed and goes back on to assistance. We were able to utilize some reports that we had of

individuals that were in danger of closing at the end of the month, get on the telephone, call those individuals and say, "Hey, listen, we have this opportunity for you to be able to renew your benefits directly from the telephone, if you are willing to take it," and keep those individuals receiving benefits and not having to worry about taking time off of work to come into the office or to complete a form or things of that nature. So, I think that flexibility, along with the others that were provided to us throughout the pandemic, as we said, were monumental and were definitely necessary in order for us to be able to do the work that we do.

Ms. KUSTER. Thank you. Shifting gears, I want to cover how we continue to strengthen SNAP in rural areas. And I think it is worth re-emphasizing that SNAP not only helps rural patrons but helps rural grocers remain economically viable. Mr. Beal, can you share briefly more from the retailer's perspective about how SNAP supports both stores and recipients in rural communities?

Mr. BEAL. Thank you for the opportunity. Even though we operate 26 stores in the greater Kansas City metro area, we have two stores that are in outlying areas, one that is in Harrisonville, Missouri, and its county seat. It is more rural. And I would say that most Americans underappreciate how many SNAP recipients live in rural America. I think there is a general perception that it is all in the big cities, where there are a fair percentage of SNAP recipients. But I would say not having enough money to afford groceries is an equal opportunity situation that isn't limited to the urban areas of town. And we see it in terms of—

The CHAIRWOMAN. I am sorry, Mr. Beal, the gentlelady's time has expired.

Ms. KUSTER. Thank you. I yield back.

The CHAIRWOMAN. Thank you. Thank you, Representative Kuster.

I now recognize the gentleman from Indiana, Mr. Baird, for your questioning. You have 5 minutes. Please begin.

Mr. BAIRD. Thank you, Madam Chairwoman. And thank you, Ranking Member, for holding this hearing about the SNAP program. And it is always insightful to me to hear from witnesses that are actually involved in the process, and I think that is important for us to make decisions on this Committee about the next farm bill.

So, I am going to start. Mr. Beal, you mentioned and I took down three things that were concerning to you, one of those being that there are no clear guidelines. The second was no response. Many times you don't get a response back. But the third one you mentioned, you said certifying online banners and there may be more than one banner. And that may be, to me in my mind, was a barrier to try and make it a smooth process for getting folks moving. So could you elaborate on that, well, on the banners, please?

Mr. BEAL. Certainly, sir. What I mean by banner is a trade name. So, I mentioned that we operate Hen House stores and Price Chopper stores. Those are considered different banners. And under the online SNAP program, you have to certify each of the banners, even though the underlying technology—I am a lead investor in a medical technology company the platform itself is the platform that needs to be certified. When it comes to WIC situations, it is the

platform that is certified, but with the online SNAP, it is the actual banner that needs to be certified. So, you have to go through the same process, the certification, even though there is a different name on the stores you operate.

Mr. BAIRD. So, continuing in that vein, what do you see would be helpful to make that more efficient?

Mr. BEAL. To come up with a situation or requirements that are similar to WIC, where you get the platforms certified. And once the underlying technology is certified as being secure, efficient for the retailer, that after that, once the platform has been certified, you don't have to recertify it just because you operate different trade names on the retail stores.

Mr. BAIRD. Thank you. I want to change just a little bit, but I do want to ask you, in terms of helping individuals make healthy choices for their diet, I think that is important. So, what do you think is an effective way for consumers to make those kinds of decisions while they are in the grocery store? And then, what can we do to stimulate them to stick to that kind of decision-making to their benefit long-term? So, if you have any thoughts there.

Mr. BEAL. Yes. And thank you for inquiring. As previously discussed, I think it is a general consensus that anytime you cook at home and you make your meals from fresh foods, that you are going to have healthier food outcomes than you would eating from fast food or from restaurants and stuff. So, any type of program incentives that could be a part of the SNAP program like the GusNIP program is today, that would encourage the eating of fresh fruits and vegetables. We hear nutritionists tell us, and we firmly believe that if you shop the outside, the perimeter of the store, you get in all the perishable departments, and that is where the healthier choices are for consumers. And so, any types of incentives along the lines of the GusNIP program are very, very highly recommended by us.

Mr. BAIRD. Thank you. And I am going to turn to maybe all the witnesses with this question. Sometimes, good intentions—I am talking about government programs—the good intentions don't really end up helping the people that we would like to help in a manner that we would like to help. And so, what can we do? Because we are coming down with this farm bill. What what do you think we can do to improve our models and our modes of delivery that really makes this program more efficient? Mr. Beal, we can start with you.

Mr. BEAL. I would say one thing in particular is to reduce any future administrative, regulatory, and financial burdens for the administration of the program. Like what we were talking about with the interchange fees, electronic fees would be a start, not allowing restrictions on the SNAP program because, as I mentioned earlier, you will be—you being the Members of the Committee and the USDA—would be forced to make choices between winners and losers on the food products that are in the store. And we have over 100,000 SKUs (stock keeping units), or what you would call UPCs (Universal Product Codes), in our database that some of our stores carry. And there are over 600,000 items, potential items, food items, and new items—over 20,000 a year coming out—and you would be forced to do that. So, I would strongly encourage that we

stay away from that and go towards an incentive program where there is encouragement for the healthier eating.

Mr. BAIRD. Thank you very much. And I am sorry I have run out of time, and so I don't have time to get to the other two witnesses. But some time I would be interested in hearing your thoughts.* Thank you. I yield back.

The CHAIRWOMAN. Thank you, Mr. Baird.

I now recognize the gentleman from Illinois. Mr. Rush, you have 5 minutes for questioning. Please unmute and begin.

Mr. RUSH. Thank you, Madam Chairwoman, for this outstanding hearing, very informative. And I want to thank all of our witnesses who are appearing before us today.

Madam Chairwoman, SNAP, as you know, is a necessary program, and my constituents certainly agree. And it is vital that we strengthen this program and build upon its successes in the next year's farm bill. One of the ways that I believe that we can strengthen the bill is by eliminating the asinine and the pointless and the extremely harmful restrictions that currently exist, prohibiting SNAP recipients from spending some of their SNAP funds on hot and prepared food. Madam Chairwoman, that is nothing but gross discrimination and biases built into this aspect of what is really a wonderful program.

As we have heard from witnesses today, we already make SNAP recipients jump through far too many hoops in order to receive these benefits. It is beyond ridiculous, Madam Chairwoman, that we prohibit them from buying hot food while allowing them to purchase the same food if it was at a lower temperature. How insulting can we be? And that is why, Madam Chair, I am proud to partner with Representatives Grace Meng and Brian Fitzpatrick earlier this year to introduce the SNAP PLUS Act of 2021 (H.R. 6338), which will fix this [inaudible] loophole in our social safety network.

Mr. Giacomi, I was happy that you, in your witness statement, that you supported lifting the restrictions on the purchase of hot and prepared food. Can you now tell the Subcommittee about the benefits that lifting those horrendous, unnecessary, very discriminatory restrictions will have to SNAP beneficiaries?

Mr. GIACOMI. Certainly. Thank you, Representative Rush. American shopping and eating habits have evolved. SNAP families need convenience and faster meal preparation. As a father of two children—two young children, I should say—I know what it is like to have to juggle between sports and other activities after school, and then also worrying about preparing a meal to make sure that my kids have something healthy and nutritious to eat. I know that I have the flexibility to be able to go to the store and get that rotisserie chicken that we have talked about or pick up a salad for myself and my household. I believe all Americans should have that same choice. I don't think that this rule, as it is written now, considers whether or not the food will even be consumed on the premises or taken home to eat.

I think that this rule, in itself, is most harmful to our homeless population, as well as those recovering from a natural disaster, be

* **Editor's note:** the responses to the information referred to are located: for Mr. Giacomi, on p. 923; and Mrs. Cox, on p. 924.

it in their town or their home, and cannot cook their food and need more choice. So, as I said, I think that it is a commonsense approach to looking at the flexibilities that Americans have, looking at the purchasing power of SNAP, and things of that nature, and adjusting to be in tune with the current situation that we see as Americans here.

Mr. RUSH. Would this provision that we are advocating, will it result in any financial or monetary increases for the American taxpayer?

Mr. GIACOMI. Not from my perspective. Perhaps Mr. Beal coming from the National Grocers Association may have a different perspective there.

Mr. RUSH. Well, I see I am running out of time, and so I yield back the balance of my time.

The CHAIRWOMAN. Thank you, Representative Rush.

I now recognize the gentlewoman from Florida. Mrs. Cammack, if you are ready, please unmute and begin your questions.

Mrs. CAMMACK. All right. Thank you, Madam Chairwoman. I am just going to jump right into questions because I know that we are kind of bouncing back and forth. But I will start with Mrs. Cox. Your testimony lauds the Administration for their update to the Thrifty Food Plan and mentions how the update will raise consumption of more nutritious foods beyond the simulations supported by CBPP. Can you walk me through the library of research that supports this claim? Are we missing an opportunity to study actual health outcomes rather than measuring consumption?

Mrs. COX. So, there is still more research to be done, right? But the research that has been done shows that the purchase of healthier foods, like leafy greens, lean proteins, as well as prepared items, saves families time, and it is also saving money. The Academy of Nutrition and Dietetics supported the Thrifty Food Plan update because it also gives families better access to healthier food. So, just a quick reminder that it just went into place in October of 2021, so we still have time and there is research to be done to show the actual improvement in how much the Thrifty Food Plan will benefit families.

Mrs. CAMMACK. Well, and I think we can all agree that saving time and money isn't always the more nutritious option. Convenience sometimes comes at a cost, oftentimes, a lot of times comes at a cost, and sometimes that is in the form of less healthy food.

I will open this up to all of our witnesses. Generally, I am concerned that SNAP promotes a perverse business of poverty. As someone who about a decade ago was homeless and my family has faced food insecurity, I can speak to the fact that a lot of the programs seem to miss the mark and seem to perpetuate more of a handout than hand-up type mentalities. So, you see organizations across the country that have come to expect continued or increased need in order to remain solvent instead of working themselves out of a job. They tend to just grow. So particularly in terms of Federal dollars and getting more Federal dollars, how are we engaging non-traditional partners in the delivery of services, and how do we rely more on the private-sector, which has more of a proven ability to deliver efficiency and results with minimal red tape? And we can

start with you, Mrs. Cox, and work our way through the witnesses here today.

Mrs. COX. No problem. So, to get to one particular point you made about working ourselves or organizations not working themselves out of business because of poverty. So, SNAP covers 41 million people, and that shows because there is immense need in this country, right? We are still coming out of a pandemic, so there has to be an ability for this country to catch those people when they are struggling. And that is what the programs do. The fact that there is continued need doesn't mean that the programs aren't working. They are actually working as intended because SNAP actually expands when there is need and it contracts when the need lessens. And so, when need is less, SNAP will also—the amount of SNAP participants will also reduce. And we have seen that before. Do you want me to yield some time to another?

Mrs. CAMMACK. Yes, I see—

Mrs. COX. Okay.

Mrs. CAMMACK.—Dan kind of chomping at the bit here, so I appreciate that, Mrs. Cox. I appreciate you yielding.

Mr. GIACOMI. Thanks, Representative. I will say this. Per person per day, benefits are around \$5 or so for SNAP participants. To me, in my opinion that is extremely low, especially when we look at the price of foods nowadays as well as other areas of inflation. What I will say is that I think states are in the best position to identify the need, whether it be of their workforce, whether it be of the state administrators, *et cetera*, and identify what work model works best for them. So, in my opinion, if you are asking me, I think allowing states to be able to look at their workforce, see what works best and respond in kind would be the way to go about things.

Mrs. CAMMACK. Excellent. Any remaining—

Mr. BEAL. Mike Beal, is it okay?

Mrs. CAMMACK. There we go.

Mr. BEAL. In response to your question. I would second that testimony. And from a grocer's perspective, I do believe that the administrative burden currently to grocers because of the SNAP program, is about as painless as it gets, with the exception of the online. It is very, very efficient for stores to take and perform the SNAP with as little red tape as possible currently.

Mrs. CAMMACK. Thank you. My time has expired. I appreciate it. Thank you. And with that, I yield back. Madam Chairwoman.

The CHAIRWOMAN. Thank you, Mrs. Cammack.

I now recognize the gentleman from California. Mr. Panetta, you have 5 minutes. When you are ready, you can begin.

Mr. PANETTA. Thank you, Madam Chairwoman. I appreciate this. And thank you to the witnesses for being here discussing a very important topic as well, first of all, as we know, as the country saw and experienced throughout the pandemic—and that is, obviously, access to our Supplemental Nutrition Assistance Program.

Obviously, we have the farm bill coming up in 2023, and I do hope to be a part of this Committee in which I can continue to ensure that obviously SNAP not just plays a majority role in the farm bill, but that it grows and expands. And I think we have some good evidence, based on what we saw during the pandemic, as to how important and how vital and how crucial the Supplemental Nutri-

tion Assistance Program is. But we also want to make it more and more accessible.

So, what I would ask you is—and either of you can answer this question—is what is my opening argument for when I talk about SNAP when it comes to the farm bill? Obviously, I think we understand the basics, but what opportunities are there? How can we improve participation to make sure that those who are eligible are actually connected to this very, very important benefit?

Mrs. COX. I will start. I think your opening argument would be that SNAP as it is, the structure itself, we need to maintain it, right? We saw how important and quickly it was able to respond during the recession and thanks to the great efforts of Congress to add additional boost, it was quick, and people would spend their money right in their communities. So, first, we want to keep the structure.

Second, when we talk about access, a piece of it is looking at those people who are not eligible or who think they are not eligible and don't know that they are eligible, like we mentioned, some college students and we are talking about some veterans.

And then, another key piece for the Center is the 3 month time limit for unemployed adults without children in their home. This is just a harsh time limit. And there is no research that shows taking away food from people is going to make them be able to work. We have to remember that the people who we are talking about on SNAP are usually low-wage workers. They are the ones that are in hospitality, are frontline workers in grocery stores, and those were the places that were hardest hit, so they are the ones that are having the hardest time to work, right, and with finding work.

As a legal aid attorney, I had clients who worked, and they still were eligible for SNAP. So, I think it is about making sure to protect the structure and ensure those who are eligible are able to get on. And we look at those who are eligible and don't know, and make sure that they know that they are eligible. So, I will yield some of my time to my fellow witnesses.

Mr. PANETTA. Sure. Mr. Beal?

Mr. BEAL. Yes. Thank you for your question. As a retailer, we are just part of the delivery mechanism, right? I don't have anything to do with eligibility qualification. But here is what I do know. Food is a very basic human need. We all know that, right? And I will tell you what we see anecdotally. When people don't have the money to buy food, we know what happens. They are still going to find a way to get food. And what we see when they can't afford the food—we see it in our stores today increasing because of inflation, the price of gas, housing, and everything else—is that we see our theft go up. Which is what we call *shrink*, okay? And people have to solve that need for the very basic of all human needs, right? And so, that is what we see in our stores going up and increasing. And we also discuss that with other retailers in our share groups, and we are very concerned about that. So, that is just an anecdotal piece of evidence.

Mr. PANETTA. Understood. Thank you. Going back to you talked about college and obviously as a supporter, original cosponsor of the EATS Act (H.R. 1919, Enhance Access To SNAP Act of 2021), I think we can do better to level the playing field, especially when

it comes with our college students. Can you go into some of the college student SNAP rules and how difficult they can be and how we can streamline them?

Mrs. COX. Sure. So, currently, anyone who attends college more than part-time is ineligible for SNAP unless they are taking care of a child that is 6 years and older, working at least 20 hours, or maybe participates in work study or a part of another kind of employment and training program. So, it is a really strict exemption. And I think that this rule was made at a time when the idea of a traditional college student isn't what we really see now. And so, it is time to think about who are our traditional college students now. And, maybe think about ways that we can make sure that those who are really in need are still able to access benefits in college so they can finish.

Mr. PANETTA. Great, great. My time is up. I just want to thank both of you, not just for your service, but providing me evidence in which I hope to use next year, especially with the 2023 Farm Bill and securing our Supplemental Nutrition Assistance Program. Thanks to both of you. I yield back, Madam Chairwoman.

The CHAIRWOMAN. Thank you, Mr. Panetta.

Seeing no Minority Members on the platform, I now recognize the gentleman from the Northern Mariana Islands. Mr. Sablan, you are recognized. Please unmute and begin your questions.

Mr. SABLAN. Yes, Madam Chairwoman, thank you very much for holding today's hearing on this very important topic. I am just—Mr. Giacomi, I will—again, thank you to all the witnesses for joining us today. But Mr. Giacomi, SNAP employment and training programs helps SNAP participants gain skills training or work experience to increase their ability to obtain regular employment that leads to economic sufficiency, at least enough so they don't need help with nutrition assistance. But these federally-funded state-administered programs also help reduce barriers to work by providing individuals with support services such as transportation, childcare as they prepare for and obtain employment. And as mentioned by Mrs. Cox, funding for these programs is not available to communities like the Northern Mariana Islands, which are not included in SNAP and instead receive block grants. So, how important to Connecticut is the employment and training program connected to SNAP?

Mr. GIACOMI. Thank you, Representative. It is extremely important. It is one of our top tier pillars in Connecticut for the SNAP program is to be able to offer SNAP employment and training. You will see if you happen to get a chance to read my written testimony two very valuable success stories of our SNAP employment and training program. We are very proud of the work we do. We are very proud to be able to partner with all of our community colleges here in the state, as well as community-based organizations. And we see the fruits of our labor. And we feel that, through employment and training, it is one of those tangible pieces of the SNAP program and the support that SNAP provides outside of just the nutrition that allows individuals to become self-sufficient, to have the training, obtain a job, and be able to support themselves and their families, going forward.

Mr. SABLAN. Thank you. And let me now, Mrs. Cox. Mr. Giacomi just told us how important these education and training programs are to Connecticut and how successful it has been to beneficiaries of SNAP. Have you also seen similar situations or results in the several states where SNAP, of course, is available?

Mrs. COX. Yes, great. And thank you for that question. We have seen a lot of success stories. Specifically, Washington State has a really amazing E&T program where they are able to kind of provide wraparound services where people are getting the necessary training and they are actually trained and placed into positions, in a field that they will be able to keep work. So, there is apprenticeship. There is subsidized employment with certain industries. I would love to give you more information specifically on Washington State. And I also believe I have read about the State of Louisiana also having a pretty comprehensive and successful E&T program, so I am happy to give you more information on that.

[The information referred to is located on p. 925.]

Mr. SABLAN. Thank you. And, it just is very important to provide this skill training, these education opportunities to those, especially in the United States, especially to those, some of them who live in the poorest part of the country, like the Northern Mariana Islands, American Samoa, and Puerto Rico. And so, looking at the 2023 Farm Bill, it is my hope that we could include language that would allow the inclusion of education and training programs to those receiving block grants.

Madam Chairwoman, thank you. Thank you for this hearing, and I yield back my time.

The CHAIRWOMAN. Thank you, Mr. Sablan. I now recognize the gentlewoman from Ohio, Ms. Brown. You have 5 minutes. Please unmute and begin your questions.

Ms. BROWN. Thank you, Madam Chairwoman. And thank you to our expert panel for being here today. Your perspectives are helpful as we look ahead to the next farm bill.

The SNAP program has proven to be an anti-poverty program that has shown time and time again to be effective and efficient. The SNAP program feels very close to home, as almost one in four people in my district receives monthly SNAP benefits. It is important that, as we look ahead to the next farm bill, we are thinking about how to improve the SNAP program so that it works for each participant, no matter if you are a senior, a veteran, a family with young children, disabled or simply have fallen on hard times.

So, Mrs. Cox, you mentioned in your testimony how quickly the SNAP program was able to adapt during the COVID-19 pandemic. What do you attribute that to, and what are some of the ways to streamline and modernize the SNAP program as we are thinking about the next farm bill?

Mrs. COX. Thank you for that question. So, the reason it was able to respond so quickly is because of its structure, right? Literally, its ability to expand and contract. So, it is based on need. When there are more people who have need, more people are able to get SNAP and then they are quickly able to spend those SNAP benefits in their local communities. So, that is one.

And your second question was about how we could strengthen it. And I think there are a couple of pieces when we think about how

to strengthen it, going forward. One is when people come in, they are usually eligible or connected to other benefits. So, if we start to think about how do we use data better, right? We know these individuals; they are showing up. How do we share data across programs to make sure people get on? As well as something that Mr. Beal brought up about the online purchasing, so once you are on, we are getting you on, we are sharing data, we are using telephonic signature, a lot of new things that we learned during the pandemic. How do we make sure that people are able to access their benefits so those in rural communities, those who are able to get to the grocery store, they are better able to use online purchasing pilots? That would be another strategy, I would suggest.

And then the last one, also around access, in addition to connecting people based on data is also really taking a look at some of the categories of people who either think they are eligible, like we talked about, or those who really are eligible and seeing if there is an opportunity to rethink our rules, like the rule around college students and also the time limit.

Ms. BROWN. Thank you so much.

Mr. Beal, from the grocers' perspective, can you share what are some of the ways to streamline and modernize the SNAP program as we are thinking about the next farm bill?

Mr. BEAL. Thank you for your question. I have already shared the comment about creating a technical assistance center as part of the USDA to help retailers get online, but also the GusNIP incentive program, which I think has a lot to do with encouraging greater nutrition and nutritional eating habits. The technical assistance center would go a very long way towards helping find solutions for grocers right now that are forced to navigate individually on their own. Those are two really, really big issues.

But I would also note from experience from working in the Double Up Food Bucks Program, that despite what the common notion may be, there are many other people out there that are eligible and would qualify for SNAP benefits who aren't even aware of that. And so, the communication piece, we have learned that it is dependent upon a lot of nonprofit agencies for these individuals to find out. And oftentimes there are stigmas associated with it that they choose not to participate in the program. And so, that is a challenge. I am not sure how to solve that challenge except with better communication. But this technical assistance center would go a long way towards helping create incentives to get healthier eating, too.

Ms. BROWN. Thank you so much. One of the most important provisions in the last farm bill was the reevaluation of the Thrifty Food Plan. This has been a crucial and long overdue update, and it comes at a time when it is most needed. Mrs. Cox, can you talk about why it is important for the Thrifty Food Plan to be reevaluated often? And in your view, how often should it be revisited?

Mrs. COX. Thanks for that question. So, as we know, the Thrifty Food Plan update was long overdue, right? The amount of benefits people were getting hadn't risen, other than for inflation, since the 1970s. And we saw how many things have changed from the 1970s to now and how working families consume and cook food. So, I think that it was important to have the current revision.

As far as how often, I think I would leave that up to USDA because they are better equipped to figure out exactly what families need. But it is something we want to make sure to keep our eye on because times are changing as we see all the time and what people eat and how much time they have.

Ms. BROWN. Well, thank you. The nutrition programs are critical in helping people get back on their feet in these difficult times, and so I do believe that these programs cannot be a bargaining chip that gets subjected to partisan politics. And I see my time has expired. So, with that, I will yield back. Thank you, Madam Chairwoman.

The CHAIRWOMAN. Thank you.

I now recognize the gentlelady from North Carolina, Ms. Adams. You have 5 minutes. Please unmute and begin your questions.

Ms. ADAMS. Thank you, Chairwoman Hayes and Ranking Member Bacon, for hosting today's hearing. And to our witnesses, thank you as well for your testimony.

The Supplemental Nutrition Assistance Program, SNAP, is one of the most effective tools that we have to combat hunger and food insecurity. In the last year, the reevaluation of the Thrifty Food Plan increased benefits by an average of \$36 per month per SNAP recipient. Prior to 2021, the Thrifty Food Plan was last updated in the 1970s.

Tens of millions of Americans depend on SNAP for their meals, even though SNAP benefits are not sufficient to feed families or prevent child hunger. And that is why I have introduced my Closing the Meal Gap Act (H.R. 4077), which will strengthen the SNAP program for millions of people affected by COVID-19, as well as older Americans, people with disabilities, children, struggling parents, students, unemployed and underemployed people, and veterans. Mr. Giacomini, states have a significant responsibility in administering SNAP and related programs shouldering 50 percent of those costs. So, your testimony detailed the positive changes to SNAP made in the 2018 Farm Bill. What should the Committee prioritize in the 2023 Farm Bill to improve SNAP rollout for state agencies?

Mr. GIACOMINI. Thank you, Representative. I think you made a tremendous point there in saying the costs associated and the burden associated with administering the program. That burden is shared not only by states themselves, but also by the Federal Government, who is paying the other 50 percent, but also about clients who are trying to navigate these rules that are often changing or difficult to understand or remember or what have you. So, if I was to prioritize anything, it would be to simplify the administration of the program for both states and individuals, allowing for funding for increased online or telephonic options, and base eligibility upon other means-tested programs. If you are receiving SSI, for example, you should not have to reapply or apply for SNAP benefits when the government has already decided that your income and assets are low enough that you qualify for SSI. Allowing individuals time to do other things than having to go to multiple agencies to apply for different programs, provide the same verifications often multiple times to these programs, allows them to do things like plan out meals, looking for work, things of that nature. So, simplifying

it works, I think for, as I said, both the recipients and the agencies in most cases.

Ms. ADAMS. Okay. Thank you, sir. Thank you.

Mrs. Cox, during times of economic upheaval, lawmakers have turned to SNAP to make sure that our neighbors in need can still put food on their tables. As a result of the COVID-19 pandemic, our country experienced one of our greatest economic upheavals, with millions of jobs lost and incomes cut. So how did SNAP respond in this time of crisis? And what lessons have we learned from this? And what should we be applying, going forward?

Mrs. COX. Thanks for that question. So, SNAP did exactly what it is meant to do, right? It responded to rising need. It responded quickly to those deteriorating economic conditions, and it actually pushed back against food insecurity and other forms of hardship that we saw since it was able to deliver additional food assistance. We saw calls to 211 requesting help with food and visits to food banks spiked dramatically in the early weeks of the pandemic, but the annual measure of overall food insecurity actually remained level. So, it shows that the quick actions of Congress and SNAP structure itself actually warded off a lot of pain.

I think what we learned is that SNAP's structure and its ability to expand is useful and we want to keep that. And I think a few lessons that we can take is that how do we be more innovative in the delivery and redemption of SNAP? Kind of piggybacking off of Mr. Beal and Mr. Giacomi, the expansion of online purchasing pilot and the increased use of the telephonic signature I think are our big takeaways.

Ms. ADAMS. Great. Well, thank you very much. And hopefully we will take advantage of those takeaways and do the right thing because it is right. Thank you so much for your responses. And, Madam Chairwoman, I yield back.

The CHAIRWOMAN. Thank you. I now recognize myself for 5 minutes for questioning.

Expanding SNAP eligibility has a proven track record of lifting families out of poverty and improving health outcomes. Several states and Territories have received additional emergency SNAP benefits as a result of COVID-19 relief efforts. That includes disabled veterans who often hesitate to apply for SNAP benefits but are nearly 22 percent more likely to experience food insecurity.

Mr. Giacomi, I appreciate your perspective and your focus on efforts to help families with the highest needs. What improvements do you recommend in the upcoming farm bill to ensure that veterans are able to access SNAP without facing unnecessary burdens?

Mr. GIACOMI. Thank you. As you will see in my testimony as well, my written testimony, veterans are a group of individuals that have long been overlooked. I think there is a need to look at the income that they are receiving and see whether or not that is something that can be excluded in eligibility determination. I think there is also a way of looking at perhaps the disability rating for veterans and expanding upon that to allow for more veterans to qualify for SNAP assistance in order to receive the help that they need.

The CHAIRWOMAN. Thank you. I introduced legislation, the Feed Hungry Veterans Act (H.R. 7272), to tackle this very issue, and I look forward to working to be sure that this provision is included in any upcoming farm bill.

In our State of Connecticut, 77,000 people are lifted out of poverty every year by SNAP, including an estimated 31,000 children. Broad-based categorical eligibility has been proven to ease the benefits cliff that exist for recipients that are close to the income and assets level, allowing them to remain eligible. Connecticut utilizes broad-based categorical eligibility to set our gross income limit at 185 percent of the Federal poverty line and waives SNAP assets limit, which would otherwise prevent recipients from saving or having assets that exceeded \$2,500. Can you elaborate on the effectiveness of this Connecticut formula and the impacts we have seen on beneficiaries and administrators of the program?

Mr. GIACOMI. Certainly.

The CHAIRWOMAN. From high-cost states. I want to just add that we are a very high-cost state, so it is important.

Mr. GIACOMI. Absolutely. And that was what I was going to mention as well. What we see in Connecticut is that there are residents in around 35,500 households that are able to take advantage of the SNAP program because of our increased gross income level through broad-based categorical eligibility. These are individuals that not only, as I said, are our working poor, they are individuals that are working families that have children. We see that 35 percent of these families, 35 percent of these individuals, rather, are aged birth to 18.

So, allowing them to get in the door, so to speak, because as I mentioned previously, they do still have to meet other criteria in order to receive assistance, then opens up other opportunities, such as the ability to receive WIC, Head Start, the National School Lunch Program, and a host of other areas that allow them to not have to decide between paying rent or buying clothes for their children and feeding themselves and their kids that month. So, I believe it has been a tremendous impact on our residents. But, as you mentioned, it is also a tremendous help administratively. It allows our eligibility workers to not focus on minute changes each month and instead ensuring that the benefits that we are giving are correct and are proper and looking at cases and ensuring that only individuals that are eligible to receive do receive the benefits.

The CHAIRWOMAN. Thank you.

Mrs. Cox, the Families First Coronavirus Response Act (P.L. 116-127) included provisions that temporarily suspended the time limit for ABAWDs. While we are coming up on the end of that, and the pandemic is still happening, can you elaborate on why the waiver of the time limit continues to be important?

Mrs. COX. Sure. Thanks for that question. So, what we saw in this pandemic, right, was a huge upheaval where most of the jobs that our SNAP participants usually participate in—whether it is in grocery stores, at factories, as childcare workers, as home health aides—those were the jobs that were lost, and so those were the jobs that are still taking a while to open back up. So, it is super important at this time that we make sure that that time limit isn't implemented.

And one thing that I know we look at is the overall national unemployment rate. And what happens with the national unemployment rate is it really masks local unemployment levels, right? So, the unemployment rate in one place, it looks very different than an unemployment rate in a different place. So I don't think we can look at it from a national unemployment rate to make decisions on local conditions.

The CHAIRWOMAN. Thank you. Thank you for that answer, Mrs. Cox. Seeing no other Members on the platform. I think that concludes our Member questions. Before we adjourn, I invite the Ranking Member to share any closing comments he may have.

Mr. BACON. Thank you. I will just simply say I appreciate our three panelists. Thanks for your insights. And with that, I will yield back.

The CHAIRWOMAN. Thank you to the Members of the Committee for attending this critical hearing today. And I join the Ranking Member in thanking our panelists, who offered very different and unique but equally important perspectives to this issue that we are all attempting to tackle.

As we continue to review the 2018 Farm Bill and look forward to the 2023 Farm Bill, I will keep in mind what each of you has said today. It is clear that hunger continues to be a pervasive issue in our nation. In the upcoming farm bill I will work to ensure SNAP, in conjunction with other Federal nutrition programs, meets the needs of millions of Americans who struggle with food insecurity.

Finally, as we were reminded by our Chairman during the last SNAP hearing, the farm bill is special. It is one of the few long-standing, bipartisan legislative packages in Congress with a long history of passing, with a large coalition of support from urban, suburban, and rural Members. Congress joins together to pass the farm bill every 5 years because it supports our nation's food system, from the farmer to the consumer and everyone in between, especially hungry children. SNAP is at the heart of that coalition because, like the farm bill itself, it provides support to every part of the food economy.

In closing, I would just like to invite Mr. Beal to, if you would, I would be very interested to hear the end of your answer on the impact on rural communities and ways that we can improve the program from all of our witnesses. Anything that was not covered today, I invite you to share that for the record, because that is definitely for the attention of every Member on this Committee. Thank you all for joining us today.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any question posed by a Member. This hearing of the Subcommittee on Nutrition, Oversight, and Department Operations is now adjourned.

[Whereupon, at 12:15 p.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED BLOG BY HON. DON BACON, A REPRESENTATIVE IN CONGRESS FROM NEBRASKA

[<https://medicaiddirectors.org/resource/congress-must-act-to-help-states-realign-medicaid-and-snap-renewals/>]

Congress Must Act to Help States Realign Medicaid and SNAP Renewals

May 16, 2022

By CHLOE GREEN, American Public Human Services Association & HANNAH MANIATES, National Association of Medicaid Directors

In March 2020, Congress acted swiftly to pass bipartisan legislation to respond to the COVID-19 pandemic. This legislation—the *Families First Coronavirus Response Act (FFCRA)*¹—included changes to Medicaid and the Supplemental Nutrition Assistance Program (SNAP) to ensure that people would continue to receive timely and safe access to benefits during this time of crisis. Due to a “continuous enrollment” requirement in the FFCRA, Medicaid programs have not disenrolled members during the Federal COVID-19 public health emergency (PHE) declaration. While this policy was critical to ensuring people had reliable access to health care during the PHE, it meant that households maintained benefits even if they did not meet the usual eligibility criteria for the program. The FFCRA also granted SNAP programs additional flexibilities to adjust issuance methods and application and reporting requirements; *these flexibilities were crucial*² to increasing equitable access to SNAP benefits as demand for nutrition assistance reached unprecedented levels early in the pandemic.

When the Federal public health emergency declaration ends, state Medicaid programs *will be required*³ to redetermine eligibility for all of their members, at the same time as the SNAP administrative flexibilities expire. With the vast majority of states jointly processing SNAP and Medicaid eligibility, the expiration of these flexibilities will create a massive operational undertaking for state agencies—and could lead to delays and poorer customer service for members.

Realigning Medicaid and SNAP Renewals will Reduce Burden for Families

Because eligibility for both Medicaid and SNAP is primarily based on household income, many people participate in both programs: as of 2017, *89% of children*⁴ receiving SNAP benefits were also enrolled in Medicaid or CHIP. *Most states use integrated models*⁵ to simultaneously process Medicaid and SNAP eligibility, which reduces the amount of paperwork that families must complete to apply for or renew their benefits, while also reducing workload for state agencies.

During the COVID-19 public health emergency, state Medicaid and SNAP programs have been operating under different rules for their redeterminations and recertifications of eligibility. However, in creating these much-needed flexibilities for members and administrative staff, SNAP and Medicaid recertification dates have become misaligned for many households—potentially doubling the amount of paperwork each year that families will have to complete moving forward.

At the end of the Federal public health emergency, *states will have up to 14 months*⁶ to redetermine eligibility for their entire Medicaid caseload, representing a crucial opportunity to re-align these dates. However, the FFCRA’s SNAP periodic reporting and recertification date flexibilities are set to expire at the end of the PHE, meaning that states will lose a key tool for realigning certification dates.

State Agencies Face Urgent Workforce Challenges

State Medicaid and SNAP agencies are facing another major challenge: bringing on enough employees to handle the massive amount of work associated with Medicaid redeterminations. Over the past 2 years, *state Medicaid agencies have been preparing*⁷ for the end of the public health emergency by cross-training staff from

¹ <https://www.congress.gov/116/plaws/publ127/PLAW-116publ127.pdf>.

² <https://files.constantcontact.com/391325ca001/43b432bd-bdde-4525-8e63-a1b0293de236.pdf>.

³ <https://www.medicaid.gov/federal-policy-guidance/downloads/sho22001.pdf>.

⁴ <https://www.census.gov/library/stories/2021/06/most-children-receiving-snap-get-at-least-one-other-social-safety-net-benefit.html>.

⁵ <https://www.kff.org/report-section/medicaid-and-chip-eligibility-enrollment-and-cost-sharing-policies-as-of-january-2020-findings-from-a-50-state-survey-enrollment-and-renewal-processes/>.

⁶ <https://www.medicaid.gov/federal-policy-guidance/downloads/sho22001.pdf>.

⁷ <https://www.medicaid.gov/resources-for-states/downloads/state-unwinding-best-practices.pdf>.

other agencies to help with redeterminations, leveraging vendors and third-party contractors to support case processing, and re-hiring retired eligibility workers.

SNAP agencies, however, face unique restrictions on the types of workers they can use. Unlike in Medicaid, SNAP agencies are *federally required*⁸ to use “merit system employees” for certification interviews and eligibility determinations, meaning that they cannot use contract workers or consultants for most functions. In states where SNAP staff also conduct Medicaid redeterminations, this means that agencies will be facing a tidal wave of work with limited options for deploying short-term contractors to help. This could lead to issues with timeliness of application processing, increased churn, and poorer customer service.

Congress Must Act to Support States with Integrated Eligibility Systems

Realigning Medicaid and SNAP renewals is an important policy goal. The Centers for Medicare and Medicaid Services have authorized additional flexibilities for Medicaid programs, including the use of 1902(e)(14)(A) waivers, to streamline the redetermination process following the end of the public health emergency. But Congress must act to give SNAP programs similar flexibilities.

Specifically, Congress should do three things to help states with integrated SNAP and Medicaid eligibility systems:

1. **Extend flexibilities that allow the USDA to adjust SNAP issuance methods and application/reporting requirements.** This will help states with integrated eligibility systems re-align Medicaid and SNAP renewal dates, reducing administrative burden on families.
2. **Expand non-merit staffing flexibilities for the SNAP program.** This would allow states to bring on additional short-term staff to help process Medicaid redeterminations in integrated eligibility states following the end of the Federal public health emergency, ensuring timeliness and good customer service.
3. **Provide states with adequate planning time and resources.** Congress has *considered new legislation*⁹ that would change how and when states conduct Medicaid redeterminations. States would need time to prepare for this type of change—including time to implement IT systems changes, train staff, and communicate with members—so at least 120 days of advance notice is essential. Congress should also provide states with a phase down of the enhanced Federal funding that is tied to the public health emergency to ensure states have the resources they need to conduct redeterminations.

The COVID-19 pandemic has had significant impacts on Medicaid and SNAP programs, which are facing increased demand, a reduced workforce, and changing Federal regulations. In order to mitigate the negative impact of the end of the public health emergency on families, Congress must give states the tools they need to transition off of COVID-related flexibilities. These tools will ensure that states can continue delivering efficient, effective, and high-quality services to the millions of people served by Medicaid and SNAP.

SUPPLEMENTARY MATERIAL SUBMITTED BY DANIEL R. GIACOMI, SOCIAL SERVICES PROGRAM ADMINISTRATION MANAGER, CONNECTICUT DEPARTMENT OF SOCIAL SERVICES

Insert 1

Mr. DESJARLAIS. Do you track at all? I mean, with the influx of illegal immigration across the southern border and it is record numbers, and this is going to obviously cause a drain on the SNAP program, are you tracking that at all?

Mr. GIACOMI. We do have numbers on those that are applying. I will say that if an adult comes in and is not identified as a permanent resident or in a qualifying category, they would not be eligible for assistance. So, we are not necessarily tracking the number of individuals that are coming in that we are denying because of this reason.

* * * * *

Mr. GIACOMI. Thank you, Madam Chair, if I may respond really quickly to clarify my statement.

⁸ <https://www.fns.usda.gov/snap/non-merit-system-personnel-guidance-call-centers-2020-revision>.

⁹ <https://www.finance.senate.gov/download/finance-committee-build-back-better-text->.

The Connecticut Department of Social Services (DSS) does not provide SNAP benefits to undocumented non-citizens; rather, it provides SNAP benefits only to certain lawfully present non-citizens who have been granted a qualifying immigration status, in accordance with Federal law. *See generally*, 8 U.S.C. §§ 1611 (restricting eligibility for certain Federal benefits only to qualified aliens) and 1641 (defining the term “qualified alien”).*

Therefore, DSS does not track the number of undocumented non-citizens receiving SNAP benefits because it simply does not provide such benefits to these individuals, and accordingly there is no such thing as a drain on the SNAP program as a result of providing benefits to undocumented non-citizens.

Insert 2

Mr. BAIRD. Thank you. And I am going to turn to maybe all the witnesses with this question. Sometimes, good intentions—I am talking about government programs—the good intentions don’t really end up helping the people that we would like to help in a manner that we would like to help. And so, what can we do? Because we are coming down with this farm bill. What what do you think we can do to improve our models and our modes of delivery that really makes this program more efficient? Mr. Beal, we can start with you.

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Mr. BAIRD. Thank you very much. And I am sorry I have run out of time, and so I don’t have time to get to the other two witnesses. But some time I would be interested in hearing your thoughts. . . .

The next reauthorization of the farm bill presents an opportunity to review the program with the benefit of lessons learned during the temporary government shutdown of 2019 and the COVID–19 pandemic that began in 2020. The experience of administering the program during the shutdown and the pandemic has demonstrated the value and importance of program innovations, some of which should be made permanent, but has also revealed additional steps that could be taken to strengthen the program in the future, making it more resilient in times of greater need and able to include vulnerable groups that have long been overlooked. Significant improvements can and should be considered in areas that would foster innovation, streamline service delivery, and simplify the administration of the program, and these improvements should be done in a way that ensures the program’s integrity and stability.

First and foremost, it is critical that we preserve access to Broad-Based Categorical Eligibility (BBCE) and the alignment of SNAP services with programs such as TANF and the National School Lunch Program, as doing so greatly simplifies access to SNAP, especially for working families, seniors, and people with disabilities. BBCE directly benefits nearly 65,000 low-income Connecticut residents, 35% of whom are aged birth to 18 years, as well as millions of Americans across the vast majority of states that rely on this flexibility. It helps working families by eliminating a “benefit cliff” and lets low-income households accrue savings to avoid debt, prepare for unexpected events, and become self-sufficient. In addition, it reduces the administrative burden on states processing SNAP applications, changes, and renewals, which correlates to a direct reduction in SNAP administrative costs per case, costs that the state and Federal Governments share.

Next, we should build upon and make permanent proven demonstration projects, such as the Elderly Simplified Application Project (ESAP) and Combined Application Project (CAP), which streamline access to SNAP for vulnerable households while simultaneously cutting down on administrative expenses and increasing timeliness of case processing. In addition, other means-tested programs such as TANF, Medicaid, and WIC should be looked at to determine whether cross enrollment, or automatic enrollment, would be appropriate and efficient to ensure individuals receive all of the assistance they need without the burden of filling out multiple applications and providing the same verifications multiple times, again reducing SNAP administrative costs per case.

Finally, the adaptations made over the past 2 years in response to the public health emergency have helped us better understand ways we can adjust program rules to more flexibly meet the needs of our customers. Opportunities are needed to further test and evaluate innovative approaches to interviews, change reporting, Periodic Report Forms, and telephonic signatures to provide space for states to transition out of the public health emergency leveraging the lessons we have learned. For example, many states already operate Combined Application Projects (CAP),

* **Editor’s note:** the referenced statutes, 8 U.S.C. §§ 1611 and 1641, are retained in Committee file.

state-demonstration programs that aim to increase SNAP participation among SSI recipients by enrolling them automatically into SNAP. These “demonstration projects” have been operating for 27 years and have proven very successful in increasing food stamp participation among SSI recipients. However, it is severely underutilized with only 17 states having some version of the CAP in place. This should become a regular component of the program with no cost neutrality, a provision in demonstration projects where states have to evaluate data to ensure the project should not cost more than it would have cost to add new participants under the regular SNAP program. In addition, other means-tested programs such as TANF, Medicaid, or WIC should be looked at to determine whether cross enrollment, or automatic enrollment, would be appropriate and efficient to ensure individuals receive all of the assistance they need without the burden of filling out multiple applications and providing the same verifications multiple times to multiple agencies. This is especially important as state agencies, like many industries, face challenges in recruiting and retaining staff. Collectively, we need to think differently about the way we properly invest in technology and partnerships to ensure we continue to deliver on our core mission while doing more with less.

SUPPLEMENTARY MATERIAL SUBMITTED BY TY JONES COX, J.D., VICE PRESIDENT OF
FOOD ASSISTANCE POLICY, CENTER ON BUDGET AND POLICY PRIORITIES

Insert 1

Mr. BAIRD. Thank you. And I am going to turn to maybe all the witnesses with this question. Sometimes, good intentions—I am talking about government programs—the good intentions don’t really end up helping the people that we would like to help in a manner that we would like to help. And so, what can we do? Because we are coming down with this farm bill. What what do you think we can do to improve our models and our modes of delivery that really makes this program more efficient? Mr. Beal, we can start with you.

* * * * *

Mr. BAIRD. Thank you very much. And I am sorry I have run out of time, and so I don’t have time to get to the other two witnesses. But some time I would be interested in hearing your thoughts. . . .

There is strong evidence that SNAP is working well, but there are certainly parts of the program that could be improved. Two opportunities that come to mind are: (1) redesigning SNAP performance measurements to be more human centered and (2) ensuring SNAP program operations keep pace with technology.

- (1) SNAP’s current performance measurement system emphasizes preventing improper payments. States and USDA take their roles as stewards of public funds seriously and have a rigorous measurement system in place to assess the accuracy of eligibility and benefit determinations. States are assessed fiscal penalties if their payment error rates are persistently too high. It is critical that SNAP have a strong system in place to assess and address program integrity. But it is also important that the measures states and USDA take do not undermine the program’s purpose to deliver food assistance to households that face difficulties affording an adequate, healthy diet. Currently information is not available to policymakers or the public about how well SNAP is working in terms of the *human* experience of accessing benefits. The 2018 Farm Bill eliminated SNAP performance bonuses, which were tied to low or improving payment error rates, participation rates among eligible people, and delivering benefits promptly within Federal timelines. But states still are subject to fiscal penalties for high payment error rates, which places a disproportionate emphasis on payment accuracy over access for low-income families. This means that if states face fiscal penalties for high error rates but aren’t evaluated on or incentivized to improve access, they have an incentive to erect barriers to eligible households that may be more error-prone.

In collaboration with the Center on Budget and Policy Priorities, Code for America developed a National Safety Net Scorecard to put forward a package of metrics that Federal and state governments could use to track program performance over time and across states or other jurisdictions. The measures in the National Safety Net Scorecard measure performance across three categories:

- a. **Equitable access:** These metrics help assess whether the programs are open to all eligible people. Are online, telephone, and in-person

services available and accessible to all people? How difficult is it to apply? Are people who apply satisfied with their experience?

- b. **Effective delivery:** Measures in this category examine the smoothness of the process after a person applies. How long does it take to receive benefits? How common is it for cases to be denied for procedural reasons as opposed to reasons related to financial eligibility? Are people who remain eligible able to successfully maintain eligibility?
- c. **Compassionate integrity:** Finally, this category assesses whether people are receiving the benefits to which they are entitled. What share of eligible people participate? How accurate are eligibility and benefit determinations? How smooth is the appeals process?

Some states measure some of these types of metrics as part of their operations or to make the case to the public that they are running successful programs. But there is a need for leadership to make progress toward this vision through Federal legislation in the farm bill, administrative action, and further state innovation.

- (2) The pandemic presented challenges and opportunities that resulted in the program adapting quickly out of necessity. Some technological changes, such as online shopping and remote eligibility practices, that probably would have occurred over time did so instead on an accelerated timeframe. Congress could consider evaluating and continuing to support these advancements. Online purchasing is probably the best example of an accelerated timeframe around technology during the pandemic. Though less than ten percent of SNAP benefits are redeemed online, USDA rapidly expanded the number of states and the number of stores that allow recipients to redeem their benefits online. The next farm bill presents an opportunity to continue the progress from recent years and improve access to online benefits for participants. Congress should consider revisions to SNAP rules that would support the use of technology in the SNAP certification and recertification processes, while maintaining alternatives for people who lack access to adequate internet service or face other barriers to using technology. For example, telephonic signatures and text messaging have shown promise in improving access for some households without compromising program integrity.

These are a few ways that we can improve the models and modes of delivery to make SNAP work best for participants and applicants.

Insert 2

Mr. SABLAN. Thank you. And let me now, Mrs. Cox. Mr. Giacomini just told us how important these education and training programs are to Connecticut and how successful it has been to beneficiaries of SNAP. Have you also seen similar situations or results in the several states where SNAP, of course, is available?

Mrs. COX. Yes, great. And thank you for that question. We have seen a lot of success stories. Specifically, Washington State has a really amazing E&T program where they are able to kind of provide wraparound services where people are getting the necessary training and they are actually trained and placed into positions, in a field that they will be able to keep work. So, there is apprenticeship. There is subsidized employment with certain industries. I would love to give you more information specifically on Washington State. And I also believe I have read about the State of Louisiana also having a pretty comprehensive and successful E&T program, so I am happy to give you more information on that.

All states must operate an Employment and Training (E&T) program as part of SNAP. These programs vary widely because the SNAP statute allows states to require participation in E&T as a condition of receiving benefits (such approaches are referred to as "mandatory E&T") or to offer training and services without any consequence for their SNAP benefits should an individual be unable to participate (referred to as "voluntary E&T"). USDA's research has found that mandatory E&T usually results in high rates of termination from SNAP, with little to no improvement in employment or income, so E&T in these cases is harmful to SNAP participants.

There are promising examples of states that have helped individuals receive the training, experience and support they need to find and keep employment and increase their earned income. These are all voluntary E&T programs. As I mentioned in my testimony, Washington State has built an impressive workforce development system with SNAP E&T as an essential component. Studies have shown participants who complete the training increase their earnings.

Louisiana's SNAP E&T program supports over 25 community and statewide organizations that provide training and support services to a wide range of individuals, including homeless families, individuals recently released from the criminal legal system, and young, at-risk adults.

Several states provide E&T services through their community college networks, including California, Connecticut, Iowa

Oklahoma is a good example of a state that operated a mandatory E&T program that consisted of job search, but moved in 2017 to a voluntary education and services model after finding the job search program did not yield positive results.

SUBMITTED LETTER BY SAM SCHAEFFER, CHIEF EXECUTIVE OFFICER, CENTER FOR
EMPLOYMENT OPPORTUNITIES, INC.

June 8, 2022

Hon. JAHANA HAYES,
Chairwoman,

Subcommittee on Nutrition, Oversight,
and Department Operations,
House Committee on Agriculture,
Washington, D.C.;

Hon. DON BACON,
Ranking Minority Member,

Subcommittee on Nutrition, Oversight,
and Department Operations,
House Committee on Agriculture,
Washington, D.C.

Dear Chair[woman] Hayes and Ranking Member Bacon:

On behalf of the Center for Employment Opportunities (CEO), I write to provide our perspective on the Supplemental Nutrition Assistance Program (SNAP) and SNAP Employment & Training (SNAP E&T) program for the Subcommittee on Nutrition, Oversight, and Department Operations hearing, "A 2022 Review of the Farm Bill: Stakeholder Perspectives on SNAP." Thank you for holding a hearing on this important topic. In CEO's experience, SNAP E&T is one of the few workforce programs that reaches individuals returning home from incarceration, providing food security, access to training via partners like CEO, and critical support services such as reimbursement for transportation costs in the first 90 days of an unsubsidized job.

CEO is the country's largest reentry employment organization, providing daily work and daily pay to justice-involved individuals facing the highest barriers to employment in 32 cities across 12 states through a transitional job and vocational training strategy. CEO engages with SNAP and SNAP E&T as critical resources for individuals reentering their community following incarceration. The United States has one of the highest incarceration rates in the world with 431 sentenced individuals per 100,000 residents in state and Federal prisons. In some states as many as 1 in 18 individuals are on probation or parole. Each year, more than 600,000 individuals return home from incarceration in need of a job.

Around half of CEO participants begin our program with no prior work experience. Additionally, more than half of CEO participants are young adults between the ages of 18 and 30 years of age, and come to CEO with significant barriers to employment, such as longer criminal histories, severe terms of incarceration, and more stigmatized convictions. CEO offers a transitional job-focused model that is proven to improve multiple outcomes for these individuals. CEO's vision is that anyone returning home from incarceration has employment and the opportunity for economic mobility aligned with their goals.

A randomized control trial conducted by MDRC found that recently released CEO participants were significantly less likely to again be incarcerated (-16%) or convicted of a crime (-22%) compared to the control group, which received basic job search services. Those who enrolled in CEO within 3 months of release generated more than \$3 in benefits for every \$1 in costs. A recent quasi-experimental evaluation in New York State found that CEO participants were 52% more likely to be employed 1 year after and 48% more likely to be employed 3 years after beginning services than the comparison group.

Immediate access to SNAP provides stability and an immediate resource for individuals released from prison with no income. Furthermore, access to SNAP E&T facilitates employment through third-party partners like CEO; we are SNAP E&T 50/50 partner in all 12 of our states. If individuals are eligible for SNAP, then they are often eligible to participate in SNAP Employment & Training (E&T), including paid work experience.

CEO's program model offers immediate work and pay, combined with wrap-around support and tools that lead to gainful unsubsidized employment. Christopher

Oaks, one of our recent Oklahoma City participants who now has a career counseling individuals on housing, stated, “Coming out of prison and immediately receiving SNAP benefits, in addition to my daily income from CEO; that was a game-changer for me. I don’t know what I would’ve done without it.”

In the last farm bill, Congress recognized the value of paid training for people coming home by allowing subsidized employment, including transitional jobs, and apprenticeships as allowable activities under E&T. In 2021, USDA–FNS finalized the Subsidized Work-Based Learning (SWBL) rule under the Work Experience component of SNAP E&T. This rule reinforces Congress’s support for job training services to reach high barrier populations, like justice-impacted individuals, who are likely not able to step away from the workforce to engage in unpaid training.

To participate in SNAP E&T, an individual must receive SNAP benefits that month. Unfortunately, because there is not an explicit statutory exemption, USDA finds that for purposes of SNAP eligibility and benefit determination, income from SNAP E&T SWBL training activities is subject to the income limit as if it was from standard employment. Income from SNAP E&T now affects benefits levels and potentially makes a household ineligible for SNAP. That means if an individual engages in 40 hours of paid training earning minimum wage for that jurisdiction or more, they may lose SNAP benefits and cannot complete their skills training. Further, some state agencies are hesitant to even offer training that individuals may not be able to complete due to lost benefits and have cited this as a reason not to expand SNAP E&T services to include SWBL.

Fixing this issue not only would help participants in their journey to independence and on a career pathway, but it would also expand the number of participants able to benefit from this proven model and likely the number of states where the model would be deployed. Excluding SNAP E&T income from countable SNAP income would result in more robust, quality training programs. For example, an individual enrolled at CEO could receive immediate stability and skills training in a transitional job and then concurrently pursue a multi-week paid training to receive their commercial driver’s license, resulting in a higher quality job placement.

As you can see, SNAP and SNAP E&T are being utilized in an effective and proven way to reduce recidivism and help justice-impacted individuals transition to full-time employment and re-integration with society. With a small technical fix to the income disregard issue—that we believe to be an unintended consequence of the flexibility for the SNAP E&T program provided in the last farm bill—SNAP E&T providers around the country could help more individuals complete important transitional employment and skills development.

Thank you for the opportunity to share CEO’s perspective on SNAP and SNAP E&T and thank you for the Subcommittee’s ongoing work on ensuring these programs function as Congress intended. Please don’t hesitate to contact us with any questions as you work to develop the next farm bill.

Sincerely,



SAM SCHAEFFER,
Chief Executive Officer.

SUBMITTED QUESTIONS

Questions submitted by Hon. Al Lawson, Jr., a Representative in Congress from Florida

Response from Michael J. Beal, J.D., Chief Financial Officer, Balls Food Stores; on behalf of National Grocers Association

Question. In my state, GusNIP a competitive USDA grant program, funds Fresh Access Bucks, a statewide incentive program that increases the purchasing power of SNAP recipients to buy fresh fruits and vegetables.

This question is for all panelists, given the importance of GusNIP and its effectiveness in promoting local economies, increasing the consumption of fruits and vegetables in underserved communities, and driving positive health outcomes, what additional incentives should Congress include to increase GusNIP participation or expand existing programs?

Answer. This important program has all of the great benefits you listed in your question and should be expanded to reach more consumers. To do this, the GusNIP program should be streamlined so program benefits can be provided through EBT cards and more retailers can participate. While the current model works well and helps target the programs limited resources, retailers need the assurance of reliable

benefits and up-to-date technology. Retailers should be allowed to opt into participation their normal USDA channels and states should be consulted when targeting limited resources to high need areas. Additionally, one major enhancement to expand the program would be to offer some reimbursement of IT expenses required to modify the POS systems or the loyalty programs of retailers that may choose to participate in the GusNIP program, at least up to some dollar amount that could be documented to the nonprofit sponsor of local grocer's program. Retailers are ready to work with Congress to expand this program and support healthy eating in our communities.

Response from Daniel R. Giacomi, Social Services Program Administration Manager, Connecticut Department of Social Services

Question 1. Mr. Giacomi, you mentioned the importance of expanding access to SNAP benefits for college students to address the growing food insecurity among this population.

What will be the effect of the end of the SNAP eligibility waivers for college students at the end of the public health emergency (PHE) and why is it important that bills like mine, H.R. 6272, The College Student Hunger Act, which makes permanent the temporary eligibility waivers, are passed before the PHE ends?

Answer. More can be done to ensure students in higher education do not go hungry. It must be acknowledged that the student landscape is not the same as it was when SNAP eligibility criteria were developed. Perhaps contrary to the common perception of a college student who lives on campus in student housing, or who continues to live at home with parents, the majority of college students in fact live off campus away from their parents. This has largely been consistent since 2000. For example, in May 2018, Dr. Robert Kelchen, professor and head of the Department of Educational Leadership and Policy Studies at the University of Tennessee, Knoxville, used data from the National Postsecondary Student Aid Study to find that only 15.6% of all undergraduate students lived on campus in the 2015–16 academic year.^{1*}

Prior to the pandemic, college students already faced disturbing levels of food insecurity. In a report published in February 2020, 1/3 of all respondents at the University of Connecticut reported low or very low food security as measured by the USDA's standard assessment tool. This same report showed that students who were food-insecure were more likely to report that they missed class and assignments, and have considered dropping out.² Furthermore, these students had lower GPAs than their food-secure classmates. The pandemic exacerbated this problem nationwide. After the pandemic's onset, 38% of students across the country said they regularly missed meals, and 36% of students reported knowing someone who dropped out due to food insecurity during the pandemic.³

To address this issue, The Consolidated Appropriations Act of 2021 temporarily expanded SNAP student participation exemptions to students approved for work study and who are not participating in work study rather than only those students participating as well as added a new exemption for those who have an expected family contribution (EFC) of \$0. Through partnerships with state educational organizations, the Connecticut Department of Social Services was able to quickly identify and provide direct outreach to nearly 27,600 students in Connecticut that fit these categories and who otherwise may not have been eligible for SNAP benefits.

Should these flexibilities expire, the thousands of students who gained eligibility for SNAP benefits would lose this assistance and food insecurity would undoubtedly grow among this population.

Question 2. In my state, GusNIP a competitive USDA grant program, funds Fresh Access Bucks, a statewide incentive program that increases the purchasing power of SNAP recipients to buy fresh fruits and vegetables.

This question is for all panelists, given the importance of GusNIP and its effectiveness in promoting local economies, increasing the consumption of fruits and vegetables in underserved communities, and driving positive health outcomes, what additional incentives should Congress include to increase GusNIP participation or expand existing programs?

Answer. When food insecurity is reduced, people are less likely to suffer from chronic illnesses such as Type 2 Diabetes, hypertension, high cholesterol, and heart

¹<https://robertkelchen.com/2018/05/28/a-look-at-college-students-living-arrangements/>.†

* **Editor's note:** footnotes annotated with † are retained in Committee file.

²<https://senate.uconn.edu/wp-content/uploads/sites/1323/2020/03/2020-0302-Student-Affairs-Handout.pdf>.†

³<https://www.insidehighered.com/news/2021/05/27/how-manage-covid-impacts-student-health-habits>.†

and kidney disease. Additionally, “access to [SNAP] in childhood leads to a significant reduction in the incidence of ‘metabolic syndrome’ (obesity, high blood pressure, and diabetes) and, for women, an increase in economic self-sufficiency.”⁴ Conversely, food insecurity is directly linked to poorer general and mental health.⁵ In fact, a study done by the USDA found that, in some cases, the level of a person’s food security was an even greater predictor of chronic illness than income. “Income is significantly associated with only three of the ten chronic diseases—hepatitis, arthritis, and COPD—while food insecurity is significantly associated with all ten.”⁶

Improving access to nutritious food, in turn, leads to reduced healthcare spending, reduced likelihood of hospital visits, and overall better long-term health outcomes. In research released by USDA, 88% of SNAP participants reported facing at least one barrier to achieving a healthy diet throughout the month, with the most common barrier (reported by 61% of SNAP participants) being the affordability of healthy foods such as lean meat and fresh fruits and vegetables.⁷ Increasing families’ ability to afford nutritious food also brings better long-term health outcomes to future generations, as children who receive SNAP have improved health outcomes and higher educational attainment when compared to children not in SNAP households.⁵

Given this clear evidence, I strongly support increased GusNIP program funding. Notwithstanding that support, I would also advocate for increased SNAP programmatic funding and authority to provide more benefits to recipients, with a particular focus on incentivizing the purchase of fruits and vegetables, especially those bought locally. This could be accomplished through increased funding for Healthy Incentives Program (HIP) plans as well as funding for technology advances that allows farmers’ markets, direct market farms, CSAs, and others to participate in the online purchasing program.

Response from Ty Jones Cox, J.D., Vice President of Food Assistance Policy, Center on Budget and Policy Priorities

Question 1. Mrs. Cox, you mentioned the importance of expanding access to SNAP benefits for college students to address the growing food insecurity among this population.

What will be the effect of the end of the SNAP eligibility waivers for college students at the end of the public health emergency (PHE) and why is it important that bills like mine, H.R. 6272, The College Student Hunger Act, which makes permanent the temporary eligibility waivers, are passed before the PHE ends?

Answer. SNAP has restrictive and complicated eligibility rules for college students. Some students who come from low-income backgrounds and continue to struggle with food insecurity may not be eligible for SNAP; others may be eligible but do not participate in SNAP because they are not aware they qualify or face difficulty navigating SNAP’s sometimes complex application procedures.

In December 2020, Congress temporarily expanded SNAP eligibility for college students to include students who are eligible to participate in state or Federal work study or have no “expected family contribution” as part of the Federal financial aid determination. This expanded eligibility will end 30 days after the Federal public health emergency for COVID-19 is lifted. At that point, college students who are participating in SNAP will lose eligibility when they come up for recertification unless they can show that they qualify for one of a much more limited set of student exemptions under the normal program rules. Congress should work to better understand the extent to which college students are eligible for and able to participate in SNAP and lower barriers to SNAP for low-income college students experiencing food insecurity.

⁴Hilary W. Hoynes, Diane Whitmore Schanzenbach, and Douglas Almond. *Long Run Impacts of Childhood Access to The Safety Net*.† NBER Working Paper Series. November 2012. https://www.nber.org/system/files/working_papers/w18535/w18535.pdf.

⁵Steven Carlson and Brynne Keith-Jennings. *SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care Costs*.† Center on Budget and Policy Priorities. January 17, 2018. <https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care>.

⁶Christian A. Gregory, Alisha Coleman-Jensen. *Food Insecurity, Chronic Disease, and Health Among Working-Age Adults*.† ERR-235. U.S. Department of Agriculture, Economic Research Service. July 2017. <https://www.ers.usda.gov/webdocs/publications/84467/err-235.pdf?v=1071.6>.

⁷USDA Food and Nutrition Service. *Barriers that Constrain the Adequacy of Supplemental Nutrition Assistance Program (SNAP) Allotments*.† June 23, 2021. <https://www.fns.usda.gov/snap/barriers-constrain-adequacy-snap-allotments>.

Question 2. In my state, GusNIP a competitive USDA grant program, funds Fresh Access Bucks, a statewide incentive program that increases the purchasing power of SNAP recipients to buy fresh fruits and vegetables.

This question is for all panelists, given the importance of GusNIP and its effectiveness in promoting local economies, increasing the consumption of fruits and vegetables in underserved communities, and driving positive health outcomes, what additional incentives should Congress include to increase GusNIP participation or expand existing programs?

Answer. Nutrition incentive programs can be an effective strategy to improve fruit and vegetable consumption among SNAP participants. For example, a USDA study, using rigorous methodology, found that offering financial incentives for purchasing fruits and vegetables increased SNAP participants' consumption of fruits and vegetables by 25 percent.

Congress has substantially increased support for SNAP fruit and vegetable incentives over time; this initiative has grown from a small pilot in the 2008 Farm Bill to a permanent program with projects across the country. Congress has also provided significant supplemental funding for GusNIP during the pandemic, including \$75 million in the Consolidated Appropriations Act, 2021 and nearly \$40 million through supply chain funding from the American Rescue Plan Act. The 2018 Farm Bill established a Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center with the goal of collecting, evaluating, and sharing project data from GusNIP grantees to better understand program outcomes and best practices for incentive program design and implementation. These findings could be instructive as Congress considers avenues to strengthen GusNIP in the upcoming farm bill.

A 2022 REVIEW OF THE FARM BILL
(ECONOMIC PERSPECTIVES ON TITLE I COMMODITIES AND
TITLE XI CROP INSURANCE)

THURSDAY, JUNE 9, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON GENERAL FARM COMMODITIES AND RISK
MANAGEMENT,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 9:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Cheri Bustos [Chair of the Subcommittee] presiding.

Members present: Representatives Bustos, Craig, O'Halleran, Lawson, Austin Scott of Georgia, Crawford, Allen, Rouzer, Mann, Miller, Thompson (*ex officio*), and Baird.

Staff present: Lyron Blum-Evitts, Carlton Bridgeforth, Prescott Martin III, Joshua Tonsager, Josh Maxwell, Patricia Straughn, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. CHERI BUSTOS, A
REPRESENTATIVE IN CONGRESS FROM ILLINOIS**

The CHAIR. This hearing of the Subcommittee on General Farm Commodities and Risk Management entitled, *A 2022 Review of the Farm Bill: Economic Perspectives on Title I Commodities and Title XI Crop Insurance*, will come to order.

I want to say welcome and thank you for joining today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today.

I am pleased to chair this hearing as producers around the country are in different stages of the growing season and dealing with varying weather conditions. Winter wheat farmers in the South are starting harvest, with many dealing with historic drought conditions. At the same time, corn, soybean, oil seed, and sugarbeet growers further to the north are still trying to get their crops in amid widespread flooding.

Since the 2018 Farm Bill was written, farmers have experienced the economic impacts of a trade war with China, marketing and supply chain disruptions caused by the pandemic, historic weather events, and now extreme volatility in commodity and input markets caused in part by Putin's unjustified and unprovoked war in

Ukraine. In particular, the most consistent issue I hear from farmers and stakeholders back home in Illinois is the price and availability of fertilizer, not only for their production this year, but also what it could mean for next year's crop as well.

All of these conditions have had implications for how our farm bill programs have been functioning. And our intent with today's hearing is to gather input from this panel of experts on what these conditions have meant for how our commodity programs have worked as a safety net and the role that the Federal Crop Insurance Program has played in helping producers manage risk.

During the past year and a half, this Subcommittee has been focused on understanding the situation on the ground and the needs of our producers. We held a hearing on the efficacy of the farm safety net almost a year ago and heard important testimony from producers, a crop insurance agent, and an ag economist, and it is clear the situation is much different today than it was at that time. And earlier this year we heard from Under Secretary Robert Bonnie about the state of our farm bill programs.

Today, we have the privilege to hear from a distinguished panel of agricultural economists on the state of play, and I look forward to your testimony.

[The prepared statement of Mrs. Bustos follows:]

PREPARED STATEMENT OF HON. CHERI BUSTOS, A REPRESENTATIVE IN CONGRESS
FROM ILLINOIS

Good morning, and thank you to our witnesses and to my colleagues for joining us at this early hour.

I am pleased to chair this hearing as producers around the country are in different stages of the growing season and dealing with varying weather conditions.

Winter wheat farmers in the south are starting harvest, with many dealing with historic drought conditions. At the same time, corn, soybean, oilseed, and sugarbeet growers further to the north are still trying to get their crops in amid widespread flooding.

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Today, we have the privilege to hear from a distinguished panel of agricultural economists on the state of play and I look forward to your testimony.

The CHAIR. I would now like to welcome the distinguished Ranking Member, the gentleman from Georgia, Mr. Austin Scott, for any opening remarks he would like to give.

**OPENING STATEMENT OF HON. AUSTIN SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

Mr. AUSTIN SCOTT of Georgia. Thank you, Chair Bustos. And thank you to the economists that are joining us today to share their perspectives on the state of the ag economy and the performance of the farm safety net and risk management tools in the farm bill.

I would be remiss if I didn't say that the ag economy is the rural economy. And for those of us who live in rural America who do not farm, we recognize the impact of agriculture on our daily lives. Between weather, global events, skyrocketing inflation, and regulatory uncertainty, farmers and ranchers today are struggling to make sound business decisions in the face of extreme uncertainty. The provisions we established in the 2018 Farm Bill were meant to help farmers manage some of that risk. Today, I am looking forward to hearing from our witnesses about how those policies are working.

While all Americans are dealing with the impact of high and rising inflation, I would argue that the farm sector of the economy is the one that is most vulnerable to these impacts. As JFK said, they buy "everything at retail, sell it at wholesale, and pay the freight both ways." Many ag commodities are fetching high prices, but the cost of inputs continue to skyrocket. Transportation is more expensive, and labor is increasingly hard to find. Any softening of crop prices could spell disaster for the rural economy because production costs continue to rise.

I am extremely frustrated with an Administration who is absolutely tone-deaf to what is happening on the farm. Senior officials suggest that the remedy for high gas prices is for more Americans to drive electric vehicles, or the USDA's most recent announcement of which they seek to transform the food system, one rooftop garden at a time. This Administration is clearly showing their lack of regard for the full-time farmers and ranchers that produce our food. And instead of going on Jimmy Kimmel, perhaps the Administration could remove the excise tax on diesel fuel and reduce the cost of farming.

There are certainly many factors that contribute to skyrocketing production costs, but it is undeniable that many of these wounds are self-inflicted by our current political leadership. Yesterday, I spoke to a farmer that I represent. He told me that during the 2019 planting season he was paying \$2.71 a gallon for truck fuel, \$2.08 a gallon for tractor fuel. His quote yesterday was \$5.55 a gallon for truck fuel and \$5.21 a gallon for tractor fuel. Those increases of 104.8 percent and 150.5 percent respectively would be higher had the Governor of the State of Georgia not removed Georgia's tax on diesel.

Crop protection tools that farmers rely on are under assault from the left wing enviro-activist. Yet the solicitor general filed a brief in the Ninth Circuit that fundamentally undermined EPA's preemptive authority of crop protection tools. The list goes on of the damage this Administration is doing.

I am interested in testimony of our witnesses today, particularly how it relates to the impact inflation production costs will have more farmers, ranchers, and if our current safety net is inadequate.

But instead of only looking for solutions by more Federal assistance, this Subcommittee also needs to pay attention to policies and actions that increase the cost of growing food and work to remedy that.

Thank you, Madam Chair, for convening this hearing. Thanks for the witnesses before us today. I yield back.

The CHAIR. All right. Thank you, Mr. Scott.

I will now recognize the Ranking Member of our full Committee, Mr. Thompson, for any opening statement he would like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Madam Chair, thank you so much, much appreciation to you, Chair Bustos, Ranking Member Scott, and the four witnesses with us today.

This hearing is happening at a critical time as it relates to the work of the Agriculture Committee. Farmers are combating incredible challenges as they need to feed, clothe, and fuel this great nation and the world. The headlines of the recent article in the *Wall Street Journal* tell the story well, such as, quote, “Farmers feel the squeeze of inflation,” end quote, or quote, “‘Farms are failing’ as fertilizer prices drive up cost of food,” end quote, and another headline, quote, “Farmers are racing against poor weather to plant crops,” end quote. That is just scratching the surface of the challenges our producers face.

Additionally, 2 weeks ago, the Congressional Budget Office released the updated baseline for USDA mandatory programs, which paints a challenging picture for this Committee as we looked to reauthorize the farm bill and make key improvements along the way. The critical Title I support programs, ARC and PLC, spent about \$5 billion or 24 percent less than expected in the 4 years after passage of the 2018 Farm Bill, and the 10 year expected cost of these programs is down nearly \$7 billion. And because of their counter-cyclical design, these programs spending less would typically be a good sign because, as it indicates, commodity prices are higher.

However, this is not translating to drastically higher farm profitability because the inputs required to produce crops have skyrocketed as well. In just 1 year, the cost per acre for nitrogen fertilizer is up 130 percent, farm diesel is up 110 percent, and according to USDA’s Economic Research Service, farm production expenses are expected to jump by over \$20 billion in 2022.

All these factors are ones we must weigh as we begin to consider necessary reforms to farm bill programs. There is no better way to understand the current market dynamics and inform the process than to hear from the agriculture economists with us today. Over the past 2 decades, each farm bill has taken a unique route to enactment, whether it was the 2002 Farm Bill that was done early, the 2008 Farm Bill that was vetoed and overridden not once but twice, the 2014 Farm Bill that took 2 years of extensions to get across the finish line, or the 2018 Farm Bill that first failed on the House floor but was only enacted with record support in both chambers in the year that it was introduced. Each one is different, yet the one constant is the preparation, diligent work and input from stakeholders that ultimately led to success.

So again, I want to thank the Chair and the Ranking Member of this Subcommittee for convening this hearing, and I eagerly look forward to hearing from our witnesses, farmers, ranchers, and foresters who are in the fight to produce safe, abundant, and affordable products that we all rely upon, and they deserve the best possible policies to aid in that fight. It is incumbent upon us to make sure that they know that we are right there with them. And despite all the challenges, we will have their backs in the 2023 Farm Bill.

Thank you, Madam Chair, Ranking Member, and I yield back.

The CHAIR. Thank you, Mr. Thompson. And thank you for being so good about attending our Subcommittee hearings. You have been wonderful on that.

The chair would request that any other Members submit their opening statements for the record so the witnesses may begin their testimony and to ensure that there is ample time for questions.

We are pleased to welcome our four distinguished expert witnesses to our hearing today. We have two in person here in Washington, D.C., in our hearing room. We have two who will be virtual. We are going to start with some introductions. I am going to introduce a couple, and then we have a couple of our Members up here who will introduce a couple of our folks who are our witnesses today. And then you will have your opening statements after we start with our introductions.

So our first witness is from my home State of Illinois, Dr. Joseph Janzen, who is an Assistant Professor at the Department of Agricultural and Consumer Economics at the University of Illinois Urbana-Champaign, and he contributes to *farmdoc Daily*, an online resource for farmers across the country.

So to introduce our second witness, I will yield to the gentlewoman from Minnesota, Congresswoman Angie Craig.

Ms. CRAIG. Thank you so much, Chair Bustos. I appreciate the opportunity to introduce Mr. Robert Craven to the Subcommittee. Mr. Craven is the Associate Director of the Center for Farm Financial Management at the University of Minnesota, where he also serves as an Extension Economist. In his leadership role with the Center for Farm Financial Management, Mr. Craven has led the development of FINPACK, which is a nationally recognized ag credit analysis software. His work to help producers better benchmark their performance and make informed and strategic economic decisions has made a positive impact for thousands of family farmers. He has taught more than 450 workshops designed to help farmers maximize their financial decisions and effectiveness, including farm management and marketing. And he has spoken at dozens of ag conferences and seminars. In addition to all of this work, Mr. Craven is still involved in his family's farming operation in southwestern Minnesota. Mr. Craven, your work to help family farmers really maximizes the effectiveness of commodity programs and crop insurance, and it is incredibly important and impactful. We are lucky to have you in Minnesota.

The CHAIR. Thank you, Congresswoman Craig.

To introduce our third witness today, I am pleased to yield to the gentleman from Arkansas, Mr. Rick Crawford.

Mr. CRAWFORD. Thank you, Madam Chair. I want to introduce Dr. Ron Rainey, who is the Assistant Vice President of the Division of Agriculture and Center Director for the Southern Risk Management Education Center. Dr. Rainey has decades of experience as an extension agricultural economist with the University of Arkansas, and I appreciate his work for our state and appreciate him being here with us today.

The CHAIR. Thank you, Mr. Crawford.

Our fourth and final witness today is Dr. Joe Outlaw, who is with us here in person, who is a Professor and Extension Economist and who is the Co-Director of the Agricultural and Food Policy Center at Texas A&M.

So welcome again to all four of our witnesses today. We will now proceed with your testimony. You will each have 5 minutes. The timer should be visible to you and will count down to zero, at which point your time has expired. If you can honor that as best as possible, that would be great. Dr. Janzen, please begin when you are ready.

STATEMENT OF JOSEPH P. JANZEN, PH.D., ASSISTANT PROFESSOR, AGRICULTURAL AND CONSUMER ECONOMICS, DEPARTMENT OF AGRICULTURAL AND CONSUMER ECONOMICS, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, URBANA, IL

Dr. JANZEN. Chair Bustos, Ranking Member Scott, Members of the Subcommittee, thank you for the opportunity to participate in today's hearing. My name is Joe Janzen. I am an Assistant Professor of Agricultural and Consumer Economics at the University of Illinois, where I am a contributor to the farmdoc project. farmdoc is a leading extension platform providing U.S. agriculture with integrated information and analysis to improve farm business decision-making and policy outcomes. As a member of the farmdoc team, I have published peer-reviewed academic research and outreach articles for industry and policymakers on commodity market analysis and the interplay between commodity prices and agricultural policy.

My testimony focuses on changes in commodity prices related to the ongoing war in Ukraine and their implications for current and future U.S. farm policy, specifically the relationship between price levels and Title I farm programs. These programs are an important component of the farm safety net generally used to address the economic consequences of low commodity prices for U.S. farmers over periods longer than the single production cycle covered by crop insurance.

I want to highlight the following: Our expectations for commodity prices are an important determinant of the policymaking process, setting the parameters of these safety net programs. We are currently in a period of high commodity prices. Since the beginning of 2022, corn, wheat, and soybean prices have increased by 20 to 50 percent from already elevated levels. Supply disruptions due to the Russian invasion of Ukraine are a major cause of the price change, but inventory reductions over the past 4 years; poor growing season weather in the United States, South America, and elsewhere around the world; and strong demand from China and other im-

porters are important contributing factors. Current market price structure suggests elevated corn, wheat, and soybean prices for the duration of the marketing period for the 2022 crop, and lower but still historically elevated prices for the 2023 crop.

U.S. farmers do face challenges related to adverse weather and rising costs. However, higher prices for corn, soybeans, and wheat for farmers of those crops are expected to improve profitability for U.S. farmers relative to 2021. For example, University of Illinois crop budgets show expected revenue increases larger than concurrent growth and farm input prices for fertilizer and energy that are also high, in part as a consequence of the Russian invasion of Ukraine. What makes this input situation so difficult is more so the uncertainty around supply chains and the ability to procure the fertilizer and other inputs necessary to produce the food that we all eat.

Recent policy proposals have included the use of Title I commodity programs to incentivize U.S. farmers to fill the gap in global supply related to the war in Ukraine. This is a difficult challenge because Ukraine and Russia are low-cost producers of corn, wheat, and other commodities. Commodity supply from Ukraine and Russia can only really be replaced with higher cost production from other parts of the world.

Experiences under the 2018 Farm Bill do offer some lessons for policy responses to this situation. Since 2018 Title I commodity programs have played a diminished role in the farm safety net relative to *ad hoc* programs intended to compensate farmers for specific price declines related to the U.S.-China trade war, and the coronavirus pandemic that did not trigger payments under standing programs.

This experience suggests there are a number of trade-offs among objectives for U.S. farm policy, including decoupling program payments from production to avoid distorting market price incentives, targeting program payments to specific realized losses, and delivering timely program payments. For example, a rapid timely response to an observed price change is likely to impair targeting of that program to specific losses. For example, the Coronavirus Food Assistance Program in 2020 compensated farmers for price declines between January and July of that year. That proved temporary.

Targeting programs to encourage U.S. production when prices are historically high runs counter to the principle that U.S. farm programs should be decoupled from production, a principle that was maintained throughout that series of *ad hoc* programs developed by USDA. Using Title I or similar programs to increase supply response would also create long-term budget liabilities, and their impact on production and thus on the global market situation may be small.

In summary, there is a limited role for farm policy, especially Title I commodity programs, to address the consequences of the war in Ukraine. Current and expected future prices are providing U.S. farmers with a strong incentive to meet this challenge, and they are making every effort to do so, as we have seen, in spite of the ongoing weather and other challenges that they face.

Thank you and I look forward to your questions.

[The prepared statement of Dr. Janzen follows:]

PREPARED STATEMENT OF JOSEPH P. JANZEN, PH.D., ASSISTANT PROFESSOR, AGRICULTURAL AND CONSUMER ECONOMICS, DEPARTMENT OF AGRICULTURAL AND CONSUMER ECONOMICS, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, URBANA, IL

[Chair] Bustos, Ranking Member Scott, and Members of the Subcommittee: Thank you for the opportunity to participate in today's hearing.

My testimony focuses on changes in commodity prices related to the ongoing war in Ukraine and their implications for current and future U.S. farm policy. I specifically focus on the relationship between price levels and Title I farm programs, the primary farm safety net tool used to address the economic consequences of low commodity prices for U.S. farmers in the medium to long-run. In doing so, I highlight the following points:

- Commodity price expectations are an important determinant of the policy-making process, especially for setting reference prices and other commodity program parameters.
- Disruptions to global agricultural commodity trade due to the war in Ukraine are significant and likely to persist through the upcoming 2022/23 marketing year and beyond. Higher prices are expected to improve profitability for U.S. farmers with revenue increases larger than concurrent growth in farm input costs that are part of the impact of the war on commodity markets.
- Since the 2018 Farm Bill, Title I commodity programs have played a diminished role in the farm safety net relative to *ad hoc* programs intended to compensate farmers for specific price declines that did not trigger payments under existing programs.
- Using Title I farm programs to address the economic consequences of the war in Ukraine for agriculture is likely to present trade-offs similar to those encountered in the design and implementation of *ad hoc* farm programs between 2018 and 2021.
 - Policy incentives to increase U.S. production to meet supply shortfalls elsewhere in the world are likely less to be effective than market incentives. Putting such policy incentives in standing programs runs counter to policy efforts in the past thirty years to reduce market distortions from U.S. farm policy.
 - Making program payments timelier is likely to impair targeting of payments to realized losses. Efforts to improve targeting of programs to realized farm losses may affect production decisions and distort markets.

The importance of price expectations for commodity programs

Fluctuations in agricultural commodity prices are directly connected to farm bill policy making. Farm programs under Title I and Title XI of the farm bill are intended to be countercyclical to market prices; they provide a safety net to farmers from the economic consequences of low prices. Broadly speaking, Title [I] programs provide support to farmers when prices are below long-run levels, especially but not exclusively the levels defined in legislation. Title XI crop revenue insurance pays indemnities to farmer policy holders when short-run, within-year price changes contribute to revenue declines below a given revenue guarantee.

Since the level of the safety net provided by Title I programs is a policy parameter defined in legislation, this testimony focuses on deviations from long-run price levels and their relationship to Title I farm programs. Empirical evidence is presented for corn, soybeans, and wheat which comprise a majority of principal crop acres in the U.S.

There is a long-standing debate in U.S. farm policy about the degree to which program parameters should be fixed in legislation or set flexibly according to mechanisms designed by policy makers.¹ Expectations about future price levels play an important role in this debate since a fixed support may provide no assistance when prices end up higher than expected or larger than anticipated support when prices are lower than expected at the time legislation is set (Zulauf 2012; Coppess, Paulson, and Zulauf 2018).

The debate over fixed *versus* flexible commodity programs has led the provision of separate programs under Title I that vary in the degree to which program parameters are fixed in legislation. Price loss coverage (PLC) makes payments relative to fixed reference prices. Agricultural Revenue Coverage (ARC) makes payments relative to a rolling average revenue calculation that depends on market conditions in

¹Title XI crop insurance programs are flexible according to this dichotomy and are not discussed here.

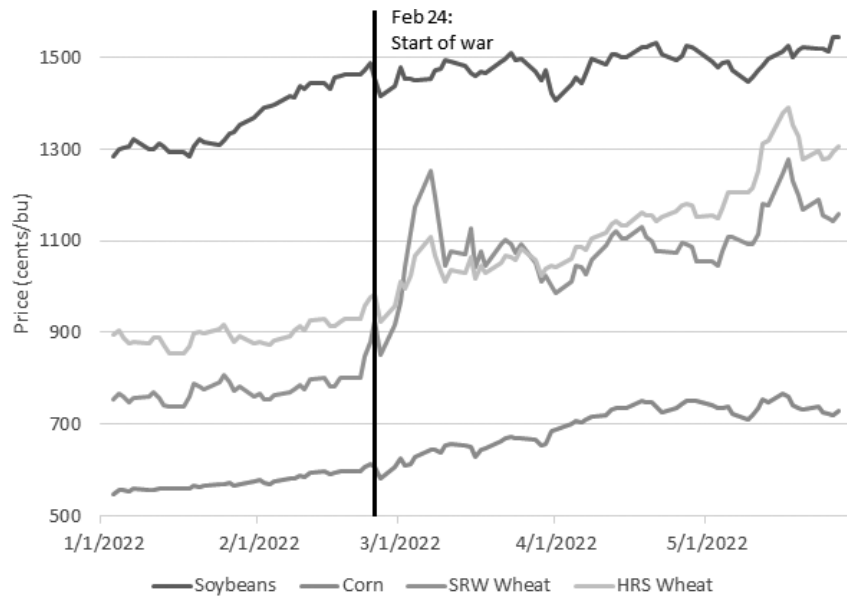
the preceding 5 years (Schnitkey, *et al.*, 2022). Title I also includes the Marketing Assistance Loan (MAL) program which provides loan deficiency payments when prices fall below a (lower) price floor called the loan rate.²

Since the 1990s, U.S. farm policy makers both in Congress and the executive have generally sought to avoid production effects from Title I programs by decoupling program payments from crop choice and acreage decisions. Such production effects would exacerbate or extend period of low prices. The primary mechanism for decoupling is payments on so-called base acreage and production rather than current production. Broadly speaking, Title [I] programs tend to receive less attention and lower funding when current and expected future prices are high.

The War in Ukraine and Agricultural Commodity Prices

Agricultural commodity prices are currently at historically high levels. One proximate cause of high prices, especially for wheat and corn, is the ongoing Russian invasion of Ukraine. Anticipated prices for the 2022 U.S. wheat crop, represented by the new-crop futures contract price, are now roughly 50% higher than on January 1, 2022. New-crop corn futures prices are $\frac{1}{3}$ higher and soybean futures prices 20% higher over the same period.

Figure 1. Expected 2022 harvest-time futures prices for corn, soybeans, and wheat, January 1 to May 27, 2022



Source: Bloomberg.

As shown in *Figure 1*, the largest price increases took place immediately following the initial Russian invasion of Ukraine on February 24, 2022. Price increases at that time were greatest for wheat, especially for soft red winter (SRW) and hard red winter (HRW) wheat futures prices (HRW prices are omitted for clarity in *Figure 1*). These wheat classes have similar protein content and are viewed as closer substitutes to the wheat exported from Russia and Ukraine, compared to other wheat classes grown in the U.S. such as Hard Red Spring (HRS).

While all nearly all agricultural commodity prices have increased in 2022, price increases have been especially large for wheat and corn because of the importance of Ukraine and Russia in global markets for these commodities. On average between

²The MAL program also facilitates commodity marketing through the provision of loans secured by agricultural commodities but that aspect of the program is not discussed here.

the 2016–17 and 2020–21 marketing years, Ukraine and Russia were responsible for 28% of world wheat exports and 17% of world corn exports.³

The conflict has limited exports with significant quantities of agricultural commodities essentially stuck inside Ukraine. Estimated Ukrainian ending stocks for the 2021/22 marketing year are expected increase dramatically. Current USDA estimates for 2021/22 Ukrainian corn and wheat ending stocks are roughly four times higher than the previous 5 year average. Outside of Ukraine, conflict-related constraints on Black Sea shipping and sanctions on Russia have also limited the movement of agricultural commodities. Production is expected to be lower in 2022 as the conflict restricts the availability of crop inputs and limits farming operations, but the inability to move commodities out of the region is expected to further increase commodity stocks inside Ukraine.

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Price increases observed in early 2022 were not solely caused by lower Ukrainian and Russian commodity exports. First, commodity markets were more susceptible to supply shocks because inventories, a key measure of commodity scarcity, had been drawn down in the years leading up to the current 2021/22 marketing year, particularly in major exporting countries where corn and wheat inventories have been declining since 2018. Commodity markets exhibit higher volatility and a tendency to spike in the short run when inventories cannot be used to mitigate the effects of supply shortfalls.

Second, there have been a series of supply shocks outside of Ukraine and Russia that have pushed the global commodity supply and demand balance toward higher prices. Drought reduced 2021/22 crop production in South America with the impact strongest in soybean prices. News of the drought moved prices higher in January and February 2022 in advance of the war in Ukraine (as shown in *Figure 1*). Similarly, drought limited wheat in the U.S. Great Plains in 2021 and drought and poor conditions for the 2022 U.S. wheat crop contributed to higher wheat prices. Strong demand from major agricultural commodity importers, especially China, also contributed to high prices. Finally, knock-on impacts of higher prices, especially export restrictions imposed by some exporting nations have exacerbated price impacts.

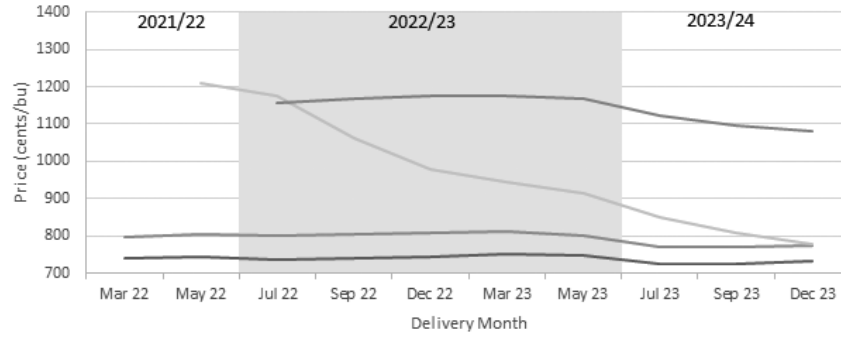
The war in Ukraine is of great concern to global commodity markets with an impact possibly larger and more persistent than other supply shocks. While the amount of grain removed from global commodity markets due to the war is significant, quantity changes implied by other supply shocks are similar in magnitude. However, the war in Ukraine may have longer-term market implications because the Black Sea region is a low-cost producer of corn, wheat, and other agricultural commodities (Langemeier and Zhou 2022b; 2022a). Moreover, crop production areas in this region are located close to ports to facilitate efficient transportation to importing nations. This means that in most cases, any importing nation seeking alternatives to crop supplies from Ukraine or Russia will only find more expensive options.

Current forward markets indicate high prices will persist at least until the end of the 2022–23 marketing year. *Figure 2* visualizes the set of futures market prices for delivery at different time horizons on specific days in early 2022. These prices represent some indication of price expectations at a given time horizon. The figure show that the initial market reaction to the war in Ukraine was very much concentrated in the short and medium-run; prices for delivery during the current 2021/22 marketing year and prices for the 2022 crop increased, but long-run price expectations moved only a little. This was especially true for the SRW wheat market. In the roughly 3 months since the start of fighting in Ukraine, longer-horizon prices have increased more than short-horizon prices.

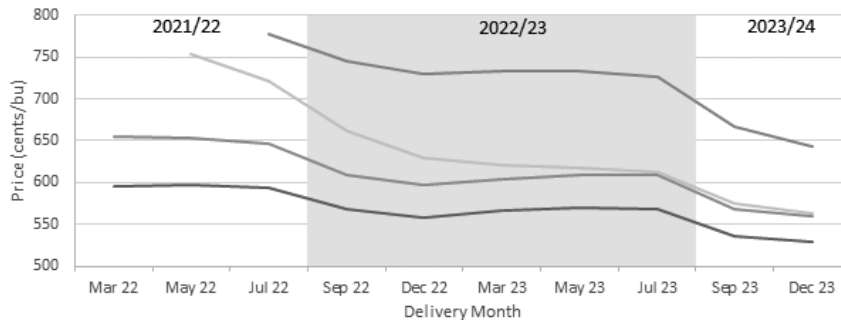
³All production, export, and stocks data referred to in this testimony come the USDA Foreign Agricultural Service PS&D database: <https://apps.fas.usda.gov/psdonline>.

Figure 2. Forward Curves for Crop Futures Prices as of Specific Dates in 2022

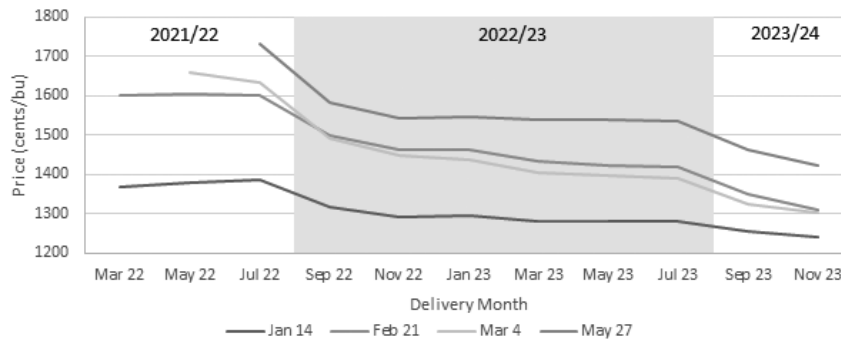
SRW Wheat



Corn



Soybeans

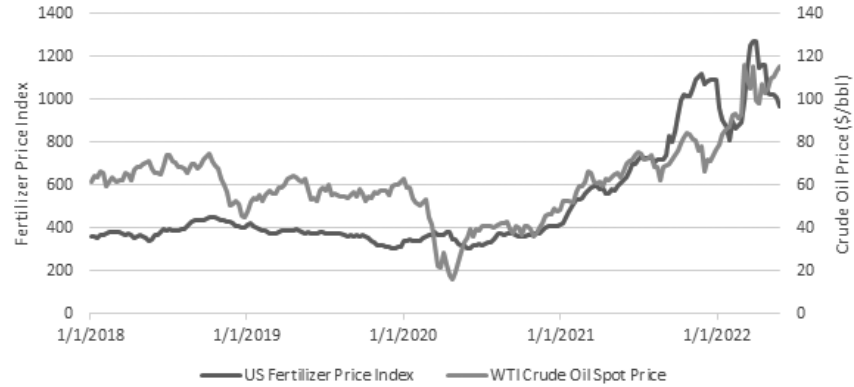


Source: Bloomberg. Note: Shaded areas represent prices for delivery during a specified marketing year.

The economic consequences of these higher prices for U.S. farmers are muddled somewhat by concurrent increases in fertilizer and energy costs that are in part related to conflict in Ukraine. Russia and its ally Belarus are major fertilizer producers and exporters. Similarly, Russia is a major producer and exporter of oil and natural gas. Data on fertilizer and crude oil price levels shown in *Figure 3* indicate that a broad basket of U.S. fertilizer prices approximately tripled between January 2021 and March 2022. Similarly, the benchmark West Texas Intermediate crude oil price nearly tripled over the same timeframe. High fertilizer and energy prices encourage farmers to economize on input use. This is concerning, because it may limit

the ability for U.S. and other farmers to respond to higher output prices with increased production, particularly in the short run.

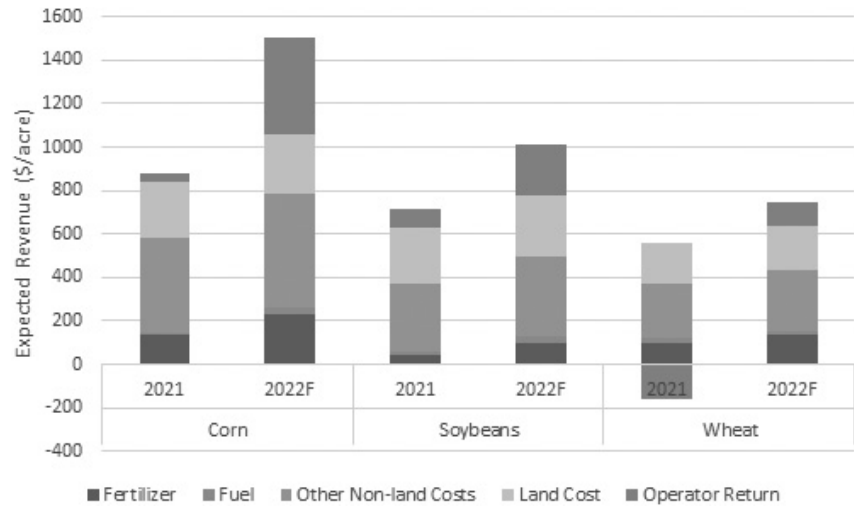
Figure 3. Weekly Fertilizer and Crude Oil Prices, January 2018 to May 2022



Source: Green Markets/Bloomberg.

The net effect for U.S. farmers of higher prices for outputs like corn, wheat, and soybeans and inputs like fertilizer and energy is nonetheless expected to be positive. Figure 4 shows expected revenue for corn, soybean, and wheat production on Illinois crop farms relative to fertilizer, fuel, land, and other costs. University of Illinois farmdoc crop budget estimates show rising output prices are expected to more than compensate for large fertilizer and fuel price increases. Though fertilizer and fuel expenses are expected to nearly double from 2021 to 2022, expected operator returns given average crop yields are substantially higher in 2022 than in 2021. Fertilizer and fuel costs simply do not comprise a large enough share of expenses to offset revenue increases.

Figure 4. Costs and Net Returns as a Proportion of Expected Revenue for Illinois Crop Farms, 2021 and 2022



Source: Crop Budgets, Illinois, <https://farmdoc.illinois.edu/management#handbook-crop-budgets>.

Note: Quantities represent springtime forecasts of marketing year total revenue and costs. Corn and soybeans data are for high productivity land in Central Illinois. Wheat data are for Southern Illinois. Land costs are

based on realized land costs in 2021 which are an average of land ownership, share rent, and cash rent costs.

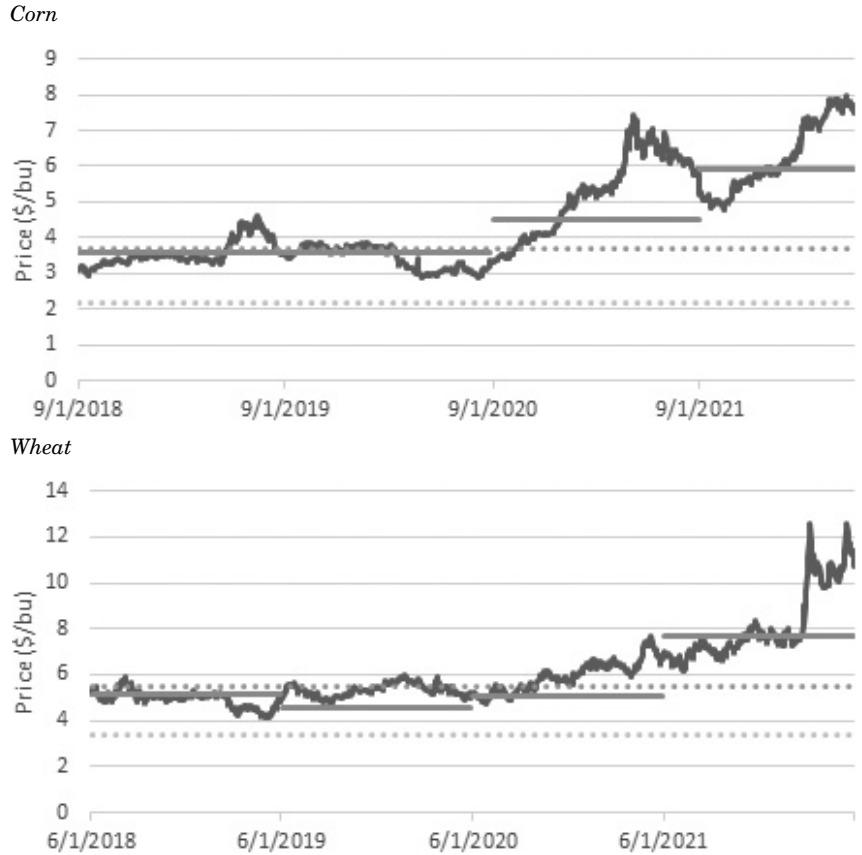
Price Levels and Agricultural Policy Under the 2018 Farm Bill

To provide a sense of the level of government safety net support provided by Title I commodity programs under current market conditions, compare current price levels to fixed support levels defined in the 2018 Farm Bill. Two key price levels defined in the 2018 Farm Bill are the effective reference price and the national loan rate. The effective reference price is higher than the loan rate, so it defines the initial level of farm safety net support.

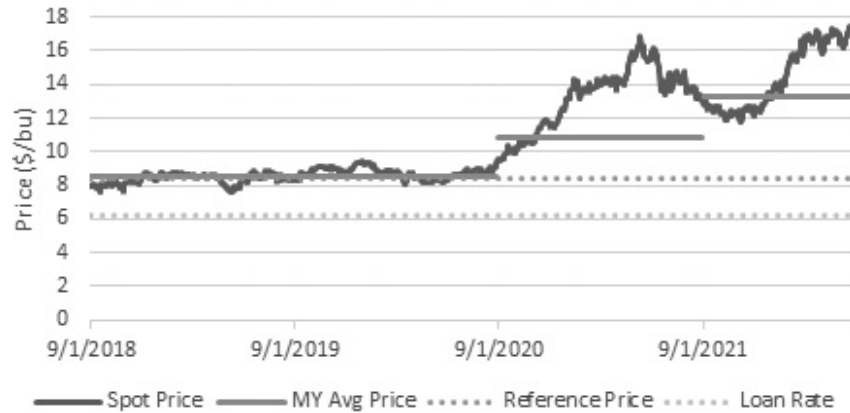
Farm payments under the Price Loss Coverage program occur when marketing year average (MYA) prices as calculated by USDA fall below the effective reference price. The MYA price is a benchmark representing average price received by farmers for a given commodity produced in a given marketing year. By definition, the MYA price is only known at the end of the marketing year, so farm payments under this Title I farm program are made after the marketing year has ended.

Figure 5 plots the MYA price and effective reference price for corn, soybeans, wheat during the 4 marketing years since the 2018 Farm Bill. Realized prices were generally close but not significantly above or below reference prices in the 2018/19 and 2019/20 marketing years. This resulted in limited PLC payments for corn and soybeans and modest PLC payments (relative to payments under the 2014 Farm Bill) for wheat. Prices for the 2020/21 and 2021/22 marketing years were generally well above the effective reference price for these commodities, a condition expected to persist into 2022/23.

Figure 5. Intra-year and Marketing Year Average Farm Prices for Corn, Wheat, and Soybeans, 2018/19 to 2021/22



Soybeans



Source: USDA/Bloomberg. Note: Intra-year daily spot prices represent the price of corn and soybeans in Central Illinois and hard red winter wheat in Kansas City on a given day.

While the MYA price has generally determined the magnitude of Title I commodity program support, price levels within a year may substantially exceed the MYA price. Intra-year spot prices are plotted in *Figure 5* for corn, soybeans, and wheat. These prices represent the current value of the commodity on a given day. By definition, higher than MYA prices will occur within a marketing year. However, the presence of such prices can create the perception of economic losses because only a small portion of each marketing year's production is sold at the higher than average price level.

Figure 5 also shows the level of national loan rates, the price level below which the marketing assistance loan program payments are triggered. For corn, wheat, and soybeans, loan rates have been well below market prices during the 2018 Farm Bill period. Payments to farmers under the marketing assistance loan program have been negligible. Recall that payments to farmers under the MAL program are made on actual production. This may create an incentive to produce more when expected prices are low. Low MAL program payments therefore imply potential market distortions related to the program have been similarly insignificant.

While commodity program payments have generally been small during the 2018 Farm Bill period, direct government payments to farmers have not. *Figure 6* shows that nominal government payments far exceeded levels observed in the recent past between 2018 and 2021. Direct farm payments in calendar year 2020 were estimated to be approximately \$46 billion, higher in both nominal and real terms than any year recorded, including previous peaks during the 1980s farm crisis and the period of low commodity prices from 1998 to 2005.

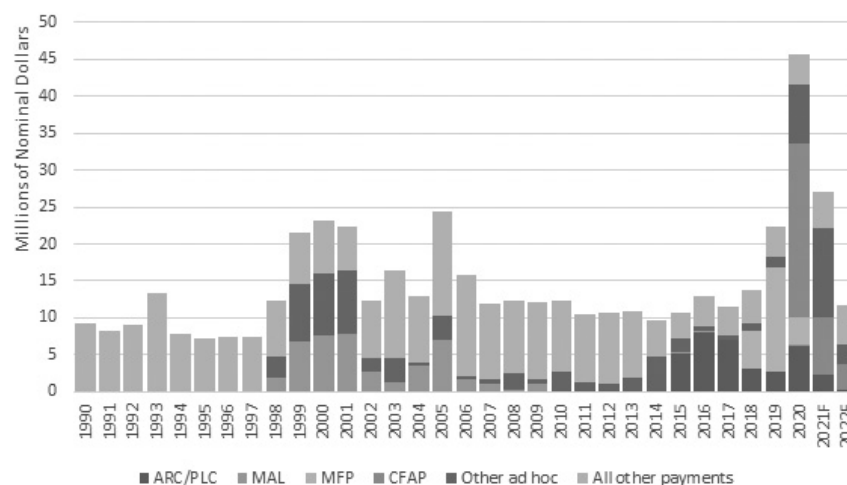
Approximately 80% of direct farm payments between 2018 and 2021 came from programs were *ad hoc*: designed to quickly address specific issues. These programs sought to quantify specific economic damages related to the U.S.-China trade conflict, the coronavirus pandemic, and other disasters. The largest *ad hoc* programs were the Market Facilitation Program (MFP) related to the U.S.-China trade conflict and the Coronavirus Food Assistance Program (CFAP).

MFP and CFAP were notable in that program payments for commodities discussed here—corn, wheat, and soybeans—were defined relative to projected or observed price declines over specified time intervals. MFP payments were calculated relative to commodity-specific payment rates that can be compared to price changes (Janzen and Hendricks 2020). CFAP payments were based on specific price declines that occurred between January 2020 and specific dates later that year.

MFP and CFAP attempted to provide greater support to farmers in a timelier manner than is the case with farm bill programs. Payments were made on actual production or acreage during this period, although USDA attempted to limit possible production distortions through program design. Attempting to provide *ad hoc* payments before the end of a production cycle (as is common with many farm bill programs) required USDA to predict the magnitude of the economic harm caused by the trade war and the pandemic for specific commodities at specific points in time.

The prevalence of *ad hoc* payments since 2018 suggests that the existing farm safety net provided in past farm bills had real or perceived inadequacies in the context of the economic harm caused by the trade conflict and the pandemic. Existing programs did not provide support to U.S. farmers under the market conditions that existed between 2018 and 2021. Any payments from existing Title I programs would have been made much later than was the case for MFP, CFAP, and other *ad hoc* programs.

Figure 6. Nominal Direct Government Payments to Farmers by Calendar Year, 1990–2022F



Source: USDA Economic Research Service Farm Income and Wealth Statistics.

Implications for Title I Commodity Programs

The war in Ukraine has prompted discussion of a global food price crisis. Relevant to Title I commodity programs, there is an active debate about the extent to which U.S. farm policy can and should address the supply shortfall caused by the war in Ukraine. For example, the Biden Administration recently proposed the use of higher fixed price supports under the marketing assistant loan program to encourage production (Swanson, *et al.*, 2022). This proposal and similar efforts to boost U.S. production using policy incentives run counter to the principle that U.S. farm programs should avoid market price distortions by decoupling program payments from production. Using Title [I] programs to increase supply response would also create long-term budget liabilities. Most importantly, increasing countercyclical market support may not increase crop production by much if at all, since expected payments from these programs would be small given current price expectations.

More broadly, using Title I farm programs to address the economic consequences of the war in Ukraine for food security and agriculture is likely to face trade-offs similar to those encountered in the design and implementation of Title I and *ad hoc* farm programs between 2018 and 2021. Farm safety net policy has generally attempted to achieve the following objectives (among others):

1. Targeting: Program payments are matched to specific enumerated economic damages sustained by farmers.
2. Decoupling: Program payments do not affect acreage and crop choices decisions for farmers.
3. Timeliness: Program payments are received as close as possible to the time when economic losses are incurred.

Experience with Title I and *ad hoc* farm payments suggests it is difficult to simultaneously achieve all three objectives. For instance, the main mechanism for decoupling Title [I] commodity programs—making payments on base acres rather than actual acres—ensures that payments are not exactly matched to realized losses (Zulauf, *et al.*, 2020). *Ad hoc* payments were able to avoid production distorting impacts by announcing payments after planting or paying common payment rates

across a wide range of crops, but these mechanisms are either infeasible for a program designed to exist for 5 years, or come at the expense of targeting.

Recent experience also suggests that program payment timeliness often conflicts with other goals, especially targeting. For example, the MFP attempted to identify economic damage to U.S. farmers caused by the trade conflict prior even to the 2018 harvest period. The full market implications of the trade conflict were not known when the program was announced, and this created considerable disagreement about whether MFP payment rates overcompensated certain commodities and regions. Improvements in payment timeliness almost certainly came at the expense of targeting.

Similarly, payments made under CFAP, especially the second round of those payments, aimed to compensate farmers for price declines between specific dates in 2020, using the January 15, 2020, pre-pandemic price level as a baseline. Some of the price declines identified by CFAP proved to be largely temporary. Again, efforts to provide timely assistance to farmers resulted in *ad hoc* payments that were not targeted to realized economic losses that met the criteria for coverage in the 2018 Farm Bill. Current Title I programs, by focusing on the marketing year average price as the outcome of interest, do a good job of focusing on long-lived, economically significant losses experienced by most producers of a given commodity.

In the current period of elevated price expectations, it is most important to note that Title I commodity programs are by design less active. Efforts to apply Title I policy levers as a means to address other objectives related to global food security and the war in Ukraine are likely to come at the expense of existing objectives, especially the goals of targeting payments to specific losses and decoupling payments from production.

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The CHAIR. Thank you Dr. Janzen.
Mr. Craven, please begin when you are ready.

STATEMENT OF ROBERT H. CRAVEN, ASSOCIATE DIRECTOR AND EXTENSION PROFESSOR, CENTER FOR FARM FINANCIAL MANAGEMENT, DEPARTMENT OF APPLIED ECONOMICS, UNIVERSITY OF MINNESOTA, ST. PAUL, MN

Mr. CRAVEN. Chair Bustos, Ranking Member Scott, and Members of the Subcommittee, thank you for the opportunity to speak with you today. I am sorry I can't be there in person.

I am Bob Craven, extension economist and Associate Director of the Center for Farm Financial Management at the University of Minnesota. The Center has a long history of providing decision support tools and training to agricultural producers and the professionals that support them. One of our major efforts is farm benchmarking to help producers better understand their financial performance and make better decisions. We collaborate with farm business management programs in over 20 states to provide tools and educational support. These programs work with individual producers on the record-keeping, planning, and analysis of those records.

Currently, the analyses from producers in 12 of these states are then loaded anonymously into the FINBIN database, the largest public searchable database of farm financial information in the U.S. There are currently over 3,300 producers in the database with data that spans over 20 years. The FINBIN data is the basis for my presentation today.

I am going to go ahead and share some charts on the screen so that you can look along with me on those. *Chart 1* shows median net farm income over the past 26 years. Net farm income is the amount available for family living, taxes, and net worth growth. 2013 through 2019 represented a period of low net farm income. The average rate of return on assets during that period was 2.5 percent. Under four percent is considered weak. 2020 and 2021 saw a significant improvement in profitability. The median income in 2021 was just over \$166,000, up from just under \$109,000 in 2020. ROA in 2021 was much improved at 11 percent.

Chart 2, hang on, *chart 2* provides the net farm income by different farm types. As you can see, hog farms had an excellent year in 2021. Crop and beef farms also had increased profitability over the past 2 years, but the beef farms in our database always struggle with profitability. Dairy farms did well in 2020, but their net income declined slightly in 2021.

Chart 3 shows working capital as a percent of gross income. This is a measure of the liquidity or the ability of the business to meet short-term financial obligations. It is the first line of financial defense in low-income years. Over 30 percent will be considered a strong position. Crop, beef, and hog farms all improved their liquidity positions substantially over the past 2 years. Dairy farms showed only a slight increase in 2021, but they are in a much stronger position than they were at the end of 2018.

Chart 4 shows average net farm income displayed in the blue bars. We are using averages here. Median values were provided in the charts above. Government payments are displayed by the red line. We have included PPP loan forgiveness and government payments which had a significant impact in the payments for 2020 and 2021. From 2007 to 2013, there was a little variability in government payments. Many of the payments at that time were from direct programs. ARC and PLC were first introduced in 2014. 2015 through 2019 were very low-income years for Midwest farmers, so in those years, government payments made up a substantial percent of net farm income. This chart shows that 2020 would have also been a low-income year had it not been for COVID-related *ad hoc* payments.

Chart 5 shows the breakdown of government payments by type. The maroon portion of the bars represents ARC and PLC payments. The purple bar represents what I have termed *ad hoc* government payments. In 2020 and 2021 this includes PPP loan forgiveness. Certainly, *ad hoc* payments and PPP were a significant portion of support from 2018 through 2021. The low ARC/PLC payments in 2021 reflect good yields in commodity prices in 2020.

The final *chart 6* shows net farm income and government payments by different farm size. The lower axis is gross farm income in thousands. Government payments increased as farm size increased, but as a proportion of net farm income, it decreases. In

2021 for a farm that grossed \$100,000–\$250,000 government payments comprise 31 percent of net farm income. For operations grossing over \$2 million it was only 20 percent.

In conclusion, our data illustrate that traditional commodity programs have not provided the major part of the support to react to the shocks that have hit commodity agriculture in recent years. *Ad hoc* programs filled in the gaps. In recent years, both Title I commodity and *ad hoc* programs have been an important safety net for agriculture producers. If you have additional questions about the data in FINBIN, don't hesitate to reach out to me. Thanks for your time and attention, and I look forward to your questions.

[The prepared statement of Mr. Craven follows:]

PREPARED STATEMENT OF ROBERT H. CRAVEN, ASSOCIATE DIRECTOR AND EXTENSION PROFESSOR, CENTER FOR FARM FINANCIAL MANAGEMENT, DEPARTMENT OF APPLIED ECONOMICS, UNIVERSITY OF MINNESOTA, ST. PAUL, MN

Introduction

[Chair Bustos], Ranking Member Scott, and Members of the Subcommittee, thank you for the opportunity to speak with you today. I am Bob Craven, Extension Economist and Associate Director of the Center for Farm Financial Management at the University of Minnesota. The Center has a long history of providing decision support tools and training to agricultural producers and the professionals that support them. One of our major efforts is farm benchmarking to help producers better understand their financial performance and make better decisions. We collaborate with farm business management programs in over 20 states to provide tools and educational support. These programs work with individual producers on their record keeping, planning, and analysis of those records. Currently, the analyses from producers in 12 of these states are then loaded anonymously into the FINBIN database (*finbin.umn.edu*)—the largest public searchable database of farm financial information in the U.S. There are currently over 3,300 producers in the database with data that spans over 20 years. The FINBIN data is the basis for my presentation today. Please note we do not have 2021 data from all the states yet, so much of what you will see for 2021 is from Minnesota farms.

Farm Income

Chart 1. Median Net Farm Income Trend

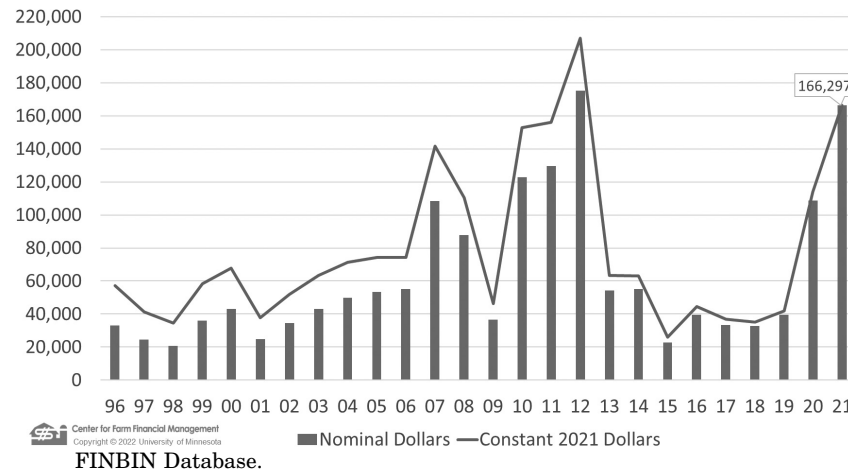


Chart 1 shows the median net farm income over the past 26 years. Net farm income is the amount available for family living, taxes, and net worth growth. 2013 through 2019 represented a period of low net farm income. The average rate of return on assets (ROA) during that period was 2.5%. Under 4% is considered a weak

ROA. 2020 and 2021 saw a significant improvement in profitability. The median income in 2021 was \$166,297, up from \$108,781 in 2020. The ROA in 2021 was much improved at 11%.

Chart 2. Median Net Farm by Farm Type

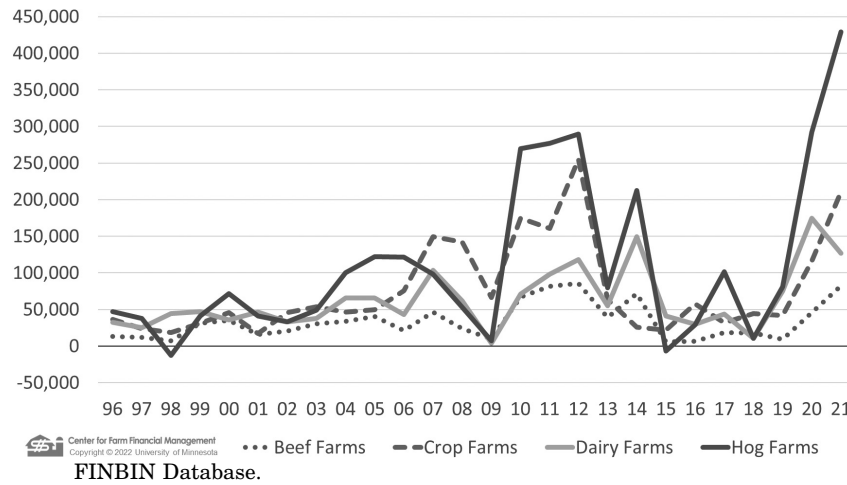


Chart 2 provides the net farm income by different farm types. As you can see, hog farms had an excellent year in 2021. Crop and beef farms also had increased profitability over the past 2 years but the beef farms in our database always struggle with profitability. Dairy farms did well in 2020, but their net income declined slightly in 2021.

Liquidity

Chart 3. Working Capital as a Percent of Gross Income

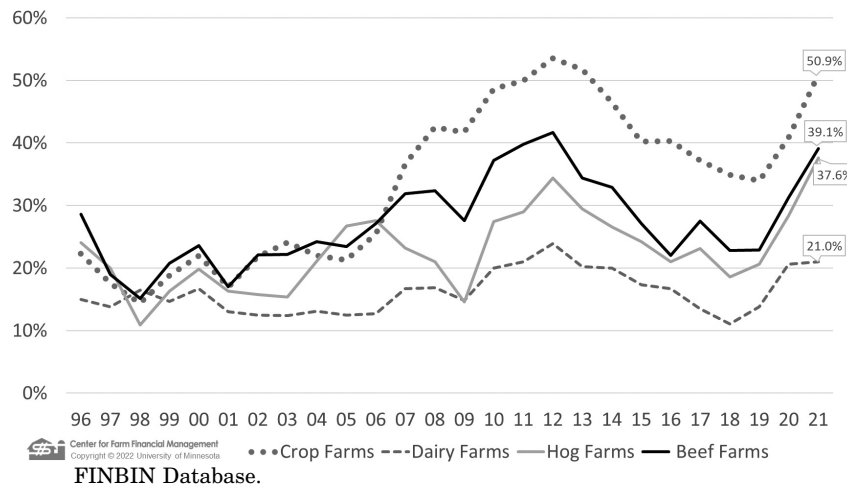
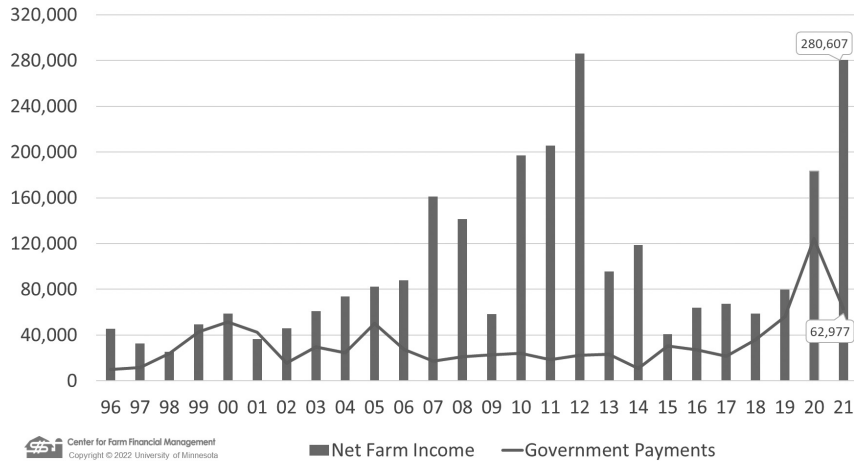


Chart 3 shows working capital as a percent of gross income. This is a measure of the liquidity or the ability of the business to meet short term financial obligations. It is the first line of financial defense in low income years. The higher the percentage, the better. For this measure, over 30% would be considered a strong working capital position. Crop, beef and hog farms all improved their liquidity position substantially over the past 2 years. Dairy farms showed only a slight increase in 2021 but are in a much stronger position than they were at the end of 2018.

Government Payments

Chart 4. Government Payments *versus* Average Net Farm Income



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FINBIN Database.

Chart 4 shows average net farm income displayed by the blue bars in the figure. We are using averages here. Median values were provided in the charts above. Government payments are displayed by the red line. We have included PPP loan forgiveness in government payments which has had a significant impact on the payments in government payments which has had a significant impact on the payments for 2020 and 2021. From 2007 to 2013 there was little variability in government payments. Many of the government payments at that time were from direct programs. ARC and PLC were first introduced in 2014. 2015 through 2019 were very low income years for Midwest farmers, so in those years government payments made up a substantial percent of net farm income. This chart shows that 2020 would have also been a low income year had it not been for [COVID] related *ad hoc* payments.

Chart 5. Government Payments by Program Type

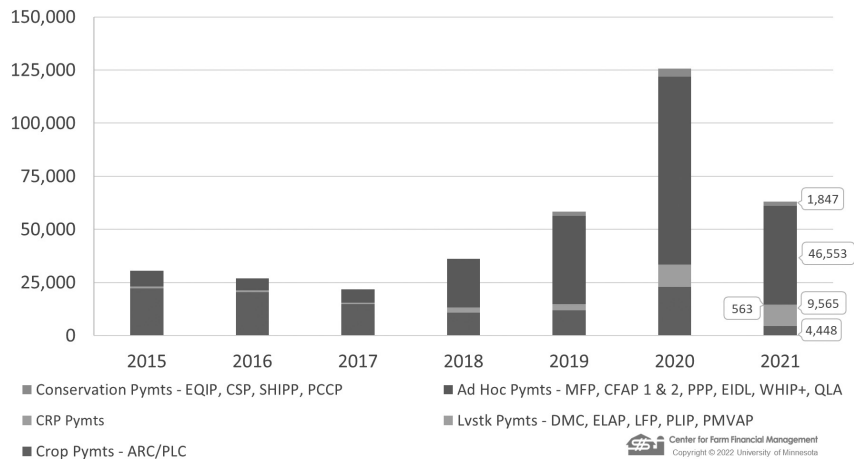


Chart 5 shows a breakdown of government payments by type. The maroon portion of the bars represent ARC and PLC payments. These payments lag a year from the data they are based on. The purple bar represents what I have termed *Ad Hoc* government payments. In 2020 and 2021 this includes PPP loan forgiveness. Prior to 2018 this category also included the conservation payments. Certainly, *ad hoc* payments and PPP were a significant portion of support from 2018 through 2021. The

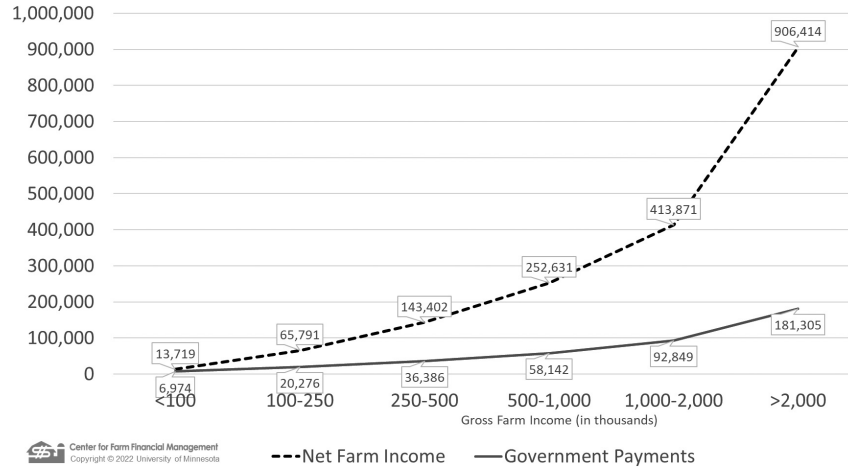
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low ARC/PLC payments in 2021 reflect good yields and commodity prices in 2020. It was a year of excellent profits and ARC and PLC payments were not triggered for most of these producers.

Chart 6. Government Payments by Size of Farm

Net Farm Income vs. Government Payments, 2021

Average by Gross Income in Thousands



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FINBIN Database.

Chart 6 shows net farm income and government payments by different farm size. The lower axis is gross farm income in thousands. The government payments increase as farm size increases, but as a proportion of net farm income it decreases. In 2021, for a farm that grossed \$100–\$250,000, government payments comprised 31% of net farm income. For operations grossing over \$2,000,000 it is only 20%.

Conclusion

Our data illustrates that traditional commodity programs have not provided the major part of the support to react to shocks that have hit commodity agriculture in recent years. *Ad Hoc* programs filled in the gaps. In recent years both Title [I] Commodity and *ad hoc* programs have been an important safety net for agricultural producers.

If you have additional questions about the data in FINBIN, don't hesitate to reach out to me at [Redacted]. Thank you for your attention.

The CHAIR. Thank you, Mr. Craven.
Dr. Rainey, please begin when you are ready.

STATEMENT OF RONALD RAINEY, PH.D., ASSISTANT VICE PRESIDENT AND PROFESSOR, DIVISION OF AGRICULTURE, UNIVERSITY OF ARKANSAS SYSTEM; DIRECTOR, SOUTHERN RISK MANAGEMENT EDUCATION CENTER, U OF AR, FAYETTEVILLE, AR

Dr. RAINEY. Madam Chair and Committee Members, thank you for the opportunity to present here today. My name is Ron Rainey, and I am humbled to provide input into this important deliberative process. I have almost 3 decades of experience working primarily as an extension agricultural economist across the food value chain with the University of Arkansas, our state's flagship land-grant university. I currently serve as Assistant Vice President of the Division of Agriculture and Center Director for the Southern Risk Management Education Center.

Farmers across the South continue to adapt to the challenging agricultural environment made worse by the pandemic, current microeconomic trends, climate variability, and disrupted supply chains. The growing challenges of inflationary pressure and supply chain issues will push 2022 net farm income lower as a result of sharply higher cost of inputs, particularly fertilizer and fuel. Increasingly adverse weather events are creating additional hurdles that challenge farm viability.

Many of our specialty crop producers have limited crop insurance options, and the added cost sometimes results in minimal risk-reducing strategies being implemented on their farms. The number of insurance products that have been made available have expanded in recent years. For example, whole farm revenue, dairy margin, forage, to name a few, but still gaps in coverage remain. For example, the poultry sector, which is the largest single agriculture industry in many southern states, is dominated by contract production. Yet contract growers have virtually no access to insurance products. Even where newer insurance product offerings are available, a lack of understanding on the functionality of a number of these more specialized products is a persistent problem that hampers use of crop insurance.

The Agricultural Risk Protection Act of 2000 (Pub. L. 106–224) authorized the Secretary of USDA to carry out the program the Partnership for Risk Management Education. Under this authority, NIFA partnered with four regional extension risk management centers to carry out a nationally competitive grant program Extension Risk Management Education. The Southern Risk Management Education Center at the University of Arkansas had been part of the ERME program since 2009, serving the southern region. SRMEC's goal is to empower producers to manage risk and to understand and manage their ability to understand those risks and increase profitability of southern agriculture by delivering programs designed to change risk management behavior among key producer populations.

The Center annually manages \$2 million in competitive grants that seek to empower producers to manage risk on their individual operations through educational offerings, primarily to land-grant institutions, though faculty and community-based organizations as well. We offer two grant programs. One focuses on a full range of risk management activities and tools, and the other seeks to enhance the use and understanding of Federal crop insurance.

The ERME program routinely collaborates with Risk Management Agency to promote RMA resources and to engage with its regional offices on the ways to engage and support our farmers and ranchers. Both programs collaborated to jointly develop and distribute a primer *Introduction to Risk Management Education*, which is a publication that details a consistent approach across the five risk areas that we address: production, marketing, finance, legal, and human.

The Southern Center also has ongoing conversations with crop insurance industry, individual companies, National Crop Insurance Services, and the Crop Insurance Professionals Association on ways to collaborate on company agent trainings, as well as on ways to engage with our farmers and our ranchers. SRMEC is working

with partners across the region to offer continuing education credits to enhance crop insurance industry stakeholder understanding of emerging issues in agriculture, and best management practices for engaging diverse producer groups.

The Census of Agriculture reveals that most socially disadvantaged farmers and ranchers on average operate relatively smaller-size farms, thereby leveraging smaller operating loans to produce their crops each year. It should be noted that USDA program historical equity and access issues have played a significant role in limiting the opportunities for socially disadvantaged farmers and ranchers to gain economies-of-scale, increasing their farm size, and investing in innovative or new machinery. The lack of opportunity to scale up results in lower productivity and relatively higher input costs on average.

Even when socially disadvantaged farmers and ranchers participate in USDA programs, they receive a disproportionately lower level of Federal support in terms of funds to reinvest in their farms. The cumulative impact of these lower support levels over an extended period of time results in real differences in terms of size of operation, equipment, facilities, and seriously compromising the viability of socially disadvantaged-owned operations.

Another issue that continues to plague socially disadvantaged farmers and ranchers is real and perceived trust issues resulting from current and past experiences and ongoing confrontations. For example, there are a number of producers who refuse to enter a USDA office even in 2022 because of fear based on past experiences of disparate treatment, of the ability or probability of losing their land or being foreclosed on a loan under what they would feel would be less-than-fair conditions. Therefore, the ability to build and restore trust in relationships is a critical hurdle to effectively reach marginalized producers and their communities with USDA programs and resources.

To carry out our programs——

The CHAIR. Dr. Rainey?

Dr. RAINEY. Yes, ma'am?

The CHAIR. Your time has expired. Can you wrap it up like in a couple of seconds?

Dr. RAINEY. Yes, ma'am. So we annually collaborate to carry out our programs with both 1862 institutions, 1890 institutions with some of their outreach specialists. And I just want to close by highlighting a program that we recently launched in partnership with Dr. Outlaw and his center to launch *Southern Ag Today*, which is a collaboration to do a daily news analysis, which focuses on southern agriculture and its producers. Thank you.

[The prepared statement of Dr. Rainey follows:]

PREPARED STATEMENT OF RONALD RAINEY, PH.D., ASSISTANT VICE PRESIDENT AND PROFESSOR, DIVISION OF AGRICULTURE, UNIVERSITY OF ARKANSAS SYSTEM; DIRECTOR, SOUTHERN RISK MANAGEMENT EDUCATION CENTER, U OF AR, FAYETTEVILLE, AR

My name is Ron Rainey and I am humbled to provide input into this important, deliberative process that means so much to all of our farmers, ranchers, and rural communities. I have almost 3 decades of experience working primarily as an Extension Agricultural Economist with the University of Arkansas, our state's flagship, Land-Grant University. I currently serve as Assistant Vice President of the Division

of Agriculture and Center Director for the Southern Risk Management Education Center.

Current Economic Update on Southern Agriculture

Farmers across the South continue to adapt to the challenging agriculture environment made worse by the pandemic, current macroeconomic trends, climate variability, and disrupted supply chains. However over the last 2 years, according to USDA estimates farm incomes have increased with a forecast for growth in 2022 in terms of gross farm income levels. But the growing challenges of inflationary pressure and supply chain issues will push net farm incomes lower as a result of sharply higher costs of inputs, particularly fertilizer and fuel. Increasingly adverse weather events are creating additional hurdles for farm viability.

The current silver lining is the solid market prices and outlook for the near-term price changes which should sustain throughout the marketing year and into next year. These prices are evident across traditional row-crop commodities and for most of the specialty crop items. It should be noted that average gross farm and net farm income estimates obscure the difficulties occurring on the extreme ends of our farm distributions. Across our small- and mid-sized farms and even some of our large scale commercial operations, farm profitability remains a challenge.

Many specialty crop producers have limited crop insurance options and the added costs sometimes results in minimal risk reducing strategies being implemented. The number of insurance products available for producers has expanded in recent years: whole farm revenue, dairy margin, forage, to name a few. Still, gaps in coverage remain. For example, the poultry sector—which is the largest single agricultural industry in many southern states—is dominated by contract production. Contract growers have virtually no access to insurance products.

Even where newer insurance product offerings are available, a lack of understanding on the functionality of a number of these more specialized products is a persistent problem. Additional training is needed to improve farmer and rancher understanding and use of these products. There also appear to be training needs for insurance companies and agents on the array of available products. Some producers complain about the lack of a company/agent offerings in terms of a desired insurance product(s) as well as a lack of engagement with certain producer groups. Some of the limited engagement seems to occur from a specialization within the crop insurance companies. If an insurance company's portfolio of clients in a particular region is made up primarily of large scale commercial row-crop farms, they may have little incentive to cultivate business among small, specialty crop, and/or livestock producers, particularly on products for which sales or underwriting procedures are more difficult, such as whole farm revenue insurance.

Role of Southern Risk Management Education Center (SRMEC)

The Agricultural Risk Protection Act (ARPA) of 2000, authorized the Secretary of USDA to carry out the program, Partnerships for Risk Management Education. Under this authority NIFA partners with four regional Extension Risk Management Education (ERME) Centers to carry out a national competitive grants program in Risk Management Education to educate agricultural producers about the full range of risk management activities. The Southern Risk Management Education Center (SRMEC) at the University of Arkansas has been a part of ERME since 2009, serving 13 states and two Territories—the Southern Region. SRMEC's goal is *to empower producers* to manage risks. The Center strives to improve producers' ability to manage risk and increase profitability of southern agriculture by delivering programs designed to change risk management behavior among key producer populations.

The ERME authorizing language has been amended through successive legislation, namely the 2008, 2014, and 2018 Farm Bills. As amended, the language describes the purpose of this risk management partnership as “educating agricultural producers and providing technical assistance to agricultural producers on a full range of farm viability and risk management activities, including futures, options, agricultural trade options, crop insurance, business planning, enterprise analysis, transfer and succession planning, management coaching, market assessment, cash flow analysis, cash forward contracting, debt reduction, production diversification, farm resources risk reduction, farm financial benchmarking, conservation activities, and other risk management strategies.”

Section 11125 of the Agricultural Improvement Act of 2018 provides authority for the USDA NIFA to expand the Partnerships for Risk Management Education program to serve a new audience, defined as “producers that are underserved by the Federal crop insurance program”. ERME implemented the expanded program by offering two separate grant pools within our annual request for applications (RFA)

that seeks education project proposals: risk management education (our traditional program area), and producers underserved by crop insurance.

SRMEC works with a ten member advisory council made up of public and private agricultural stakeholders that are strategically and intentionally engaged to serve our region's diverse agriculture sector—commercial, small, diversified, row-crop, livestock, organic, sustainable, urban, and specialty. Representation includes farmers, ranchers, 1862 and 1890 land-grant university faculty, and community based organization representatives. The Center annually manages \$2 Million in competitive grants that seek to empower producers to manage risk on their individual operations through educational offerings. To manage our two separate grant pools, SRMEC employs a ten member advisory council and a seven member evaluation panel made up of public and private agricultural stakeholders to identify our grant regional priority areas and capacity building efforts across the region. Additionally our advisory council and crop insurance evaluation panel serve as reviewers for our grants selection process using a transparent merit-based process.

Engagement with Risk Management Agency (RMA) and crop insurance industry

The ERME program routinely collaborates with RMA to promote RMA resources and to engage with its regional offices. Both programs collaborated to jointly develop and distribute a primer, *Introduction to Risk Management* (Crane, Gantz, Isaacs, Jose, and Sharp, 2013). The publication details ERME and RMA's consistent approach to managing risks across five areas: production, marketing, finance, legal, and human. The document not only defines each risk area but details specific tools and strategies to successfully mitigate the unique risks that agricultural producers face. Beyond the publication and on-going communications, each ERME Center has RMA representation on its advisory council. SRMEC has an RMA representative on our Advisory Council and two representatives on our crop insurance evaluation panel. We communicate on program and funding areas to build on the synergies of each program to serve farmers and ranchers. SRMEC actively engages with multiple regional offices and has on-going conversations with RMA administrators on ways to enhance outreach efforts and resources.

Last, SRMEC has on-going conversations with the crop insurance industry—individual companies, National Crop Insurance Services, and Crop Insurance Professional Association (CIPA)—on ways to collaborate on company/agent trainings. The pandemic interrupted planning for a company/agent training in collaboration with CIPA, but those discussions are on-going. SRMEC envisions offering continuing education credits to enhance crop insurance industry stakeholder understanding of emerging issues in agriculture and best management practices for engaging diverse producer groups.

Current Condition for SDFRs

The Census of Agriculture reveals that most socially disadvantaged farmers and ranchers (SDFRs) on average operate relatively smaller sized farms, thereby leveraging smaller operating loans to produce their crops each year. It should be noted that USDA program historical equity and access issues have played a role in limiting the opportunities for SDFRs to gain economies of scale—increasing farm size and investing in innovative or new machinery/technology. The lack of opportunities to scale up results in lower productivity and relatively higher input costs on average. Even when SDFRs participate in USDA farm programs, they receive a disproportionately lower level of Federal support in terms of funds to reinvest in their farms. The cumulative impact of lower support levels over an extended period of time—10 year, 20 year horizon, *etc.*—results in real differences in terms like size of operation and equipment/facilities, seriously compromising the viability of SDFR-owned operations.

I serve on the board of directors for the Socially Disadvantaged Farmer and Rancher Policy Research Center at Alcorn State University. The Policy Research Center actively organizes and examines research, data, and producer feedback to provide insights to enhance understanding of SDFR conditions and policy recommendations to enhance their economic viability and survival. The Policy Research Center notes the following discrepancy in risk management/crop insurance subsidies. As Federal crop insurance subsidies programs have increased, the “subsidy gap” has widened between White and Black farmers. Because crop insurance subsidies are based on the value of a producers' crop, the larger subsidy premiums go to producers with the highest sales. The vast majority of farmers that receive the highest subsidies are White. The 2017 USDA Census Report, indicates that slightly over 2,500 Black farmers had product sales for more than \$50,000, compared to 500,000 white producers. Almost 50% (16,891) of all (35,470) Black owned farms had less

than \$2,500 in sales. With premium subsidies being linked to the value of the crop, it is a safe estimate that between 95–97% of crop insurance subsidies have gone to white producers.

Another issue that continues to plague SDFRs is real and perceived trust issues resulting from current/past experiences and on-going confrontations. For example, there are a number of producers who refuse to enter a USDA office even in 2022 because of fear-based on experiences—of disparate treatment, losing their land or being foreclosed on a loan under less than fair conditions. Therefore, the ability to build and restore trust and relationships is a critical hurdle to effectively reach marginalized producers and their communities with USDA programs/resources. The resulting community impact of inequitable access to Federal and state programs have played a significant role in individual and community wealth levels across both urban and rural areas.

In terms of crop insurance, my past experience with managing education projects reveals that technical assistance in record-keeping, business planning, and tax preparation are core areas to build and maintain viable businesses. These fundamental processes are directly linked to credit access and indirectly linked to use of crop insurance. Additional technical assistance in these core areas could enhance producer understanding of ways to leverage crop insurance products to support their businesses.

Overview of working with 1862, 1890 Land Grants & Community-Based Organizations

As SRMEC director, I have been privileged to work with a collection of public and private agricultural stakeholders assisting our farmers and ranchers across the region and nationally. SRMEC has intentionally engaged with diverse stakeholder groups to build meaningful relationships across region and nationally. This includes engagement with diverse farm types and producer backgrounds as well as grower organizations. We collaborate annually with 1890 Extension and outreach specialists, primarily small farm program (2501) directors and community based organizations that serve an array of producer groups ranging from African American, Native American, Hmong, Organic, Sustainable, Livestock, Row-Crop, Greenhouse & Nursery, to name a few. Within the 1862 land-grants, we collaborate with the region's farm management committee—Southern Extension Economics Committee. The committee is made up of agricultural economists from the region's land-grant institutions, primarily those with Extension responsibilities. Annually, the Center supports the region's premiere academic outreach meeting, the Southern Outlook Conference, which is hosted by Southern Extension Economics Committee. SRMEC features its collaborations with the farm management committee and 1890 partners on our website, <https://srmec.uada.edu/>.

Last, SRMEC partnered with the Agricultural and Food Policy Center at Texas A&M to lead a collaborative effort among the Southern Extension Economics Committee to offer *Southern Ag Today* (SAT). SAT is a daily insight and analysis on issues impacting southern farmers and producers and is a timely resource for anyone—farmers, ranchers, Extension educators, lenders, policy makers, and media—who wants a better understanding of the issues affecting agriculture in the region.

The CHAIR. All right, very good. Thank you, Dr. Rainey. I appreciate that.

Dr. Outlaw, please begin when you are ready.

STATEMENT OF JOE L. OUTLAW, PH.D., PROFESSOR, EXTENSION ECONOMIST, AND CO-DIRECTOR, AGRICULTURAL AND FOOD POLICY CENTER, DEPARTMENT OF AGRICULTURAL ECONOMICS, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX

Dr. OUTLAW. Chair Bustos, Ranking Member Scott, and Members of the Subcommittee, thank you for the opportunity to testify on behalf of the Agricultural and Food Policy Center at Texas A&M University as you focus on opportunities to enhance Title I and XI programs.

As many of you know, the primary focus of AFPC has been to analyze the likely consequences of policy changes at the farm level with our one-of-a-kind data set of information that we collect from

commercial farmers and ranchers located across the United States. Working closely with 675 commercial producers has provided our group with a unique perspective on agricultural policy. Currently, we maintain the information to describe and simulate 94 representative crop and livestock operations in 30 states.

In order to provide perspective on Titles I and XI, I wanted to briefly summarize a recent report that looks at farm profitability in 2022 relative to 2021 for our 64 representative crop farms in the face of higher input and output prices. For this report, we asked our panel members to provide their cost per acre for each of those years. While some producers were able to benefit by locking in input prices early in 2021 for this year's crop, most indicated very little ability to do so. The news is full of stories about inflation averaging 8.5 percent so far this year for the average American. The lowest year-over-year inflation farmers are saying is twice that on seed with most commodity categories many times higher.

The following are highlights of the analysis that are relevant for today's hearing. Net cash farm income in 2021 included a significant amount of *ad hoc* assistance. Absent another infusion in 2022, we estimate that significant increases in input prices will result in a decline in net cash farm income in 2022 relative to 2021. However, despite the income reduction from 2021, most crops will likely still result in positive net cash farm income for the representative crop farms. The noticeable outlier is rice. Two-thirds of rice farmers are facing losses in 2022. Having worked with farmers over the last 30 years, I want to make sure you understand we are talking about historic amounts of capital that farmers are putting at risk.

Throughout my career, I have referred to the programs of Title I and Title XI as the three-legged stool that serves as a safety net for U.S. producers. Agriculture Risk Coverage, ARC, and Price Loss Coverage, PLC, and the Non-recourse Commodity Loan Program serve as two of the legs while the Federal Crop Insurance Program serves as a third leg.

Price Loss Coverage was established in the 2014 Farm Bill using the cost of production as a basis for setting a level of protection for each covered commodity through reference prices. PLC rates worked fine while inflation was fairly low. However, the reference prices are in dire need of increases to remain relevant. Producers' costs have increased substantially, and the current reference prices are not providing a relative amount of protection.

Agriculture Risk Coverage was also established in the 2014 Farm Bill. ARC uses a 5 year moving average of historic prices and yields to establish a benchmark that is used to determine the level of protection producers received. While good when coming off of relatively high prices, ARC proves worthless when prices declined or remained relatively flat. Since ARC has a reference price embedded in the calculations, raising reference prices will make ARC attractive as a revenue protection safety net alternative.

Assuming these two alternatives are used, going forward, instead of forcing producers to pick the tool ARC or PLC they want, I would suggest allowing them to receive the benefits of whichever is higher in a given year. This would cost nothing more than if producers have chosen wisely.

Historically high input costs have also highlighted the shortcomings of basic safety nets on prices and/or gross incomes alone. This may present an opportunity to explore adding margin coverage. However, I would urge you to proceed with caution. Dairy offers a constructive example. Dairy margin coverage was added in the 2014 Farm Bill, but the initial version was a flop that has taken years and a lot of money to improve.

The Non-recourse Loan Marketing Program works as it was designed. The rates have largely remained unchanged over the past 30 years, losing ground to inflation. The rates need to be raised to increase the amount of the crop that is being protected, which will cost money.

Federal crop insurance is an enormously successful public-private partnership that stands today as the primary safety net tool for U.S. producers. As I have said many times in front of Congress, do no harm to crop insurance and stop outside interest groups from trying to tie provisions of their pet projects to crop insurance, for example, linking climate change practice adoption to insurance program subsidy levels.

While this hearing is about the farm bill, I would be remiss if I didn't mention the last 5 years of *ad hoc* disaster assistance. I believe the upcoming farm bill provides an opportunity to help address some of the shortcomings of *ad hoc* assistance that that *ad hoc* assistance was designed to address.

Madam Chair, thank you. This completes my statement.
[The prepared statement of Dr. Outlaw follows:]

PREPARED STATEMENT OF JOE L. OUTLAW, PH.D., PROFESSOR, EXTENSION ECONOMIST, AND CO-DIRECTOR, AGRICULTURAL AND FOOD POLICY CENTER, DEPARTMENT OF AGRICULTURAL ECONOMICS, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX

[Chair] Bustos, Ranking Member Scott, and Members of the Subcommittee, thank you for the opportunity to testify on behalf of the Agricultural and Food Policy Center (AFPC) at Texas A&M University as you focus on opportunities to enhance Title I and XI programs. As many of you know, the primary focus of AFPC has been to analyze the likely consequences of policy changes at the farm level with our one-of-a-kind dataset of information that we collect from commercial farmers and ranchers located across the United States.

Our Center was formed at Texas A&M University more than 30 years ago at the request of Congressman Charlie Stenholm to provide Congress with objective research regarding the financial health of agricultural operations across the United States. Since that time, we have worked with the Agricultural Committees in both the U.S. Senate and House of Representatives, providing Members and Committee staff objective research regarding the potential farm-level effects of agricultural policy changes.

Working closely with 675 commercial producers located across the United States has provided our group with a unique perspective on agricultural policy. Currently, we maintain the information to describe and simulate 94 representative crop and livestock operations in 30 states. We have several panels that continue to have the original farmer members we started with back in 1983. We update the data to describe each representative farm relying on a face-to-face meeting with the panels every 2 to 3 years. We partner with the Food & Agricultural Policy Research Institute (FAPRI) at the University of Missouri which provides projected prices, policy variables, and input inflation rates. The producer panels are provided *pro forma* financial statements for their representative farm and are asked to verify the accuracy of our simulated results for the past year and the reasonableness of a 6 year projection. Each panel must approve the model's ability to reasonably reflect the economic activity on their representative farm prior to using the farm for policy analysis.

In order to provide perspective on Titles I and XI, I wanted to briefly summarize a recent AFPC report that looks at farm profitability in 2022 relative to 2021 for our 64 representative crop farms in the face of higher input and output prices.¹

For this report, we asked our panel members to provide their costs per acre for 2022 versus 2021 for the major input categories. The average for each category across all respondents is presented in *Table 1*. Updated commodity prices for the 2021/22 and 2022/23 marketing years and policy variables were obtained from the FAPRI-MU Bulletin #01-22 entitled *U.S. Agricultural Market Snapshot*, April 2022 (*Table 2*). While some producers were able to benefit by locking in input prices early in 2021 for this year's crop, most indicated very little ability to lock in these prices even when using their normal tax management strategy of prepaying inputs. Simply, the input suppliers would not lock in a price until the producers agreed to take delivery. Almost every respondent stated they were going to do their best to reduce input usage in the face of the highest costs of production they had ever experienced.

The news is full of stories about inflation that is averaging 8.5 percent so far this year for the average American. The lowest year-over-year inflation farmers are seeing is twice that on seed with most categories many times higher. Commodity prices, while generally higher in 2022, are up less than eight percent. If not for the incredible productivity of the U.S. farmer, there would be a major financial crisis in agriculture.

Table 1. Average Percentage Change in Representative Farm Input Costs/Acre from 2021 to 2022.

	Seed	Nitrogen Fertilizer	Phosphorus & Potassium Fertilizer	Herbicide	Insecticide	Fungicide	Fuel & Lube
Percentage Change 2021 to 2022	16.58%	133.62%	92.75%	64.23%	40.25%	36.02%	86.63%

Table 2. Projected Commodity Prices Reported in FAPRI April 2022 Update, Marketing Years 2021/22 and 2022/23.

	2021/22	2022/23	Percentage Change
Corn (\$/bu)	\$5.78	\$6.06	4.84%
Wheat (\$/bu)	\$7.60	\$8.08	6.32%
Soybean (\$/bu)	\$13.27	\$14.22	7.16%
Grain Sorghum (\$/bu)	\$5.87	\$6.14	4.60%
Barley (\$/bu)	\$5.27	\$5.60	6.26%
Oats (\$/bu)	\$4.30	\$4.00	-6.98%
Upland Cotton (\$/lb)	\$0.910	\$0.871	-4.29%
Seed Cotton (\$/lb)	\$0.464	\$0.443	-4.53%
Peanuts (\$/lb)	\$0.238	\$0.240	0.84%
Sunflower Seed (\$/lb)	\$0.318	\$0.324	1.89%
Canola (\$/lb)	\$0.318	\$0.295	-7.23%
All Rice (\$/cwt)	\$15.80	\$15.84	0.25%
Long Grain Rice (\$/cwt)	\$13.75	\$14.03	2.04%

The following are highlights of the analysis that are relevant for today's hearing:

- Net cash farm income in 2021 included a significant amount of *ad hoc* assistance. Absent another infusion of assistance in 2022, we estimate that significant increases in input prices will result in a huge decline in net cash farm income in 2022 (compared to 2021).
- Despite the significant reduction from 2021, higher commodity prices for most crops will likely still result in positive net cash farm income for most of AFPC's representative crop farms. The noticeable outlier is rice— $\frac{2}{3}$ of the rice farms are facing losses in 2022.
- The analysis hinges on producers receiving the higher commodity prices forecasted by FAPRI with average yields. With drought being experienced across a significant portion of the country and many other areas facing excess moisture, this assumption may be overly optimistic.
- Having worked with farmers located across the U.S. over the last 30 years, I want to make sure you understand we are talking about historic amounts of capital that farmers are putting at risk

¹*Economic Impact of Higher Crop and Input Prices on AFPC's Representative Crop Farms*, AFPC Briefing Report 22-05. <https://www.afpc.tamu.edu/research/publications/files/716/BP-22-06.pdf>.

Throughout my career, I have referred to the programs in Title I and Title XI as the three-legged stool that serves as the safety net for U.S. producers. The specific commodity programs in Title I have changed over that time, but all generally have the same objective to make-up for shortfalls in prices or incomes. The current programs, agriculture risk coverage (ARC) and price loss coverage (PLC) and the non-recourse commodity loan program, serve as two of the legs while the Federal Crop Insurance Program serves as the third leg.

The following are what I believe to be the most significant shortcomings of all three legs of the stool. Most of my suggestions require additional resources that may be difficult to secure but are necessary.

Price Loss Coverage (PLC) was established in the 2014 Farm Bill using the cost of production as the basis for setting the level of protection for each covered commodity through reference prices. Counter-cyclical price protection programs like PLC have been used in the U.S. since the 1970s with the notable exception of the 1996 Farm Bill. In the PLC program, I believe your colleagues decided to cover a significant amount (roughly 75% to 85%) of total costs of production realizing the likely negative consequences of providing price protection at higher levels. PLC rates worked fine while inflation was fairly low; however, the reference prices set in the 2014 Farm Bill and continued in the 2018 Farm Bill are in dire need of increases to remain relevant. Producers' costs have increased substantially, and the current reference prices are not providing a relevant amount of protection.

Agriculture Risk Coverage (ARC) was also established in the 2014 Farm Bill as a second attempt at providing producers a revenue-based safety net program to replace the overly complicated and not widely used average crop revenue election (ACRE) program first used in the 2008 Farm Bill. ARC uses a 5 year moving average of historical prices and yields to establish a benchmark that is used to determine the level of protection producers receive. While good when coming off of relatively high prices, ARC proved worthless when prices declined and remained relatively flat, providing little protection to producers. This is why that while widely chosen over PLC early in the 2014 Farm Bill, ARC was largely abandoned as a choice of safety net program in recent years. The problem with ARC is that it assumes the historical revenue levels were the appropriate levels that producers should be supported at without any basis such as protecting some level of costs for making that claim. Since ARC has the reference price embedded in the calculations, raising reference prices will make ARC more attractive as a revenue protection safety net alternative.

Assuming these two alternatives are used going forward, instead of forcing producers to pick the tool (ARC or PLC) they want, I would suggest allowing them to receive the benefits of whichever is higher in a given year. This would cost nothing more than if the producers have chosen wisely and selected the appropriate tool and would take a major decision away that only serves as a major distraction to their work in trying to grow a crop. Historically high input costs have also highlighted the shortcomings of basing the safety net on prices and/or gross incomes alone. This may present an opportunity to explore adding margin coverage. However, ARC & PLC have been popular, so I would urge you to proceed with caution. Dairy offers an instructive example. Dairy margin coverage was added in the 2014 Farm Bill, but the initial version was a flop that has taken years (and a lot of money) to improve.

The Non-recourse Marketing Loan Program works as it was designed more than 4 decades ago; however, despite modest increases for some commodities in the 2018 Farm Bill, the rates have largely remained unchanged over the past 30 years, losing ground to inflation. Providing producers the ability to take out a storage loan or receive a loan deficiency payment on a crop is a very useful marketing tool. The rates need to be raised to increase the amount of the crop that is being protected which will cost money but is significantly less expensive to do at current price levels.

Federal crop insurance is an enormously successful public-private partnership that today stands as the primary safety net tool for U.S. producers. This is due to the program largely using futures prices to annually adjust the amount of protection producers can select. While crop insurance is popular with producers, the little-known secret in the farming community is that bankers "encourage" producers to purchase buy-up levels of crop insurance as a means of protecting the producer and the operating loan banks make to producers. As I have said many times in front of Congress, do no harm to crop insurance and stop outside interest groups from tying provisions of their pet projects to crop insurance—for example, linking climate change practice adoption to insurance program subsidy levels. This runs the risk of creating an unlevel playing field for producers by distorting protection levels and leaving some producers with less protection due to their lack of feasible climate change mitigation alternatives.

While this hearing is about the farm bill, I would be remiss if I didn't mention the last 5 years of *ad hoc* disaster assistance. I believe the upcoming farm bill provides a clear opportunity to help address some of the shortcomings *ad hoc* assistance was designed to address. In the case of WHIP, WHIP+, and ERP, they all essentially are designed to help cover the large deductibles producers face in their crop insurance policies. While the *ad hoc* assistance over the last 5 years has been vital, it comes LONG after the disaster has come and gone and has been limited to specific causes of loss. Perhaps most important, *ad hoc* assistance is, by definition, not guaranteed. Farmers already face enough risks and uncertainty—ideally, they wouldn't have to guess at what the safety net might look like as they struggle to put a crop in the ground.

[Madam Chair,] that completes my statement.

The CHAIR. Thank you, Dr. Outlaw.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will each be recognized for 5 minutes each in order to allow to get to as many questions as possible. Please keep your microphones muted until you are recognized in order to minimize background noise. For starters, I will recognize myself for 5 minutes and start with our line of questioning.

And my questions just so all four of you are paying attention, I would like all four of you to address it. And, Dr. Janzen, I am going to ask you to address it first, just because you are from my home State of Illinois, all right, so you get that that benefit. So here you go. What is an appropriate metric we should be using to evaluate how the safety net should be structured? ARC kicks in when there are relatively significant drops in revenue compared to the previous few years. PLC kicks in when prices drop below a set level. And producers face risk now of tightened margins. How should we think about an appropriate structure of the farm safety net? This is really to help us start laying the foundation for what do we want to consider as we look at the 2023 Farm Bill. Dr. Janzen, we will start with you.

Dr. JANZEN. I think an appropriate measure, a starting point is the level of price. And looking to—there is a long-standing debate about whether we should have sort of flexible or fixed parameters. And it is something that I think it would—if Congress wants to step up and say that we know what the long run level of price is at which we would like to fix the safety net, then the PLC reference price is that parameter in current policy and likely to be something similar in policy, going forward.

So we need to decide what that price is. And it is important to remember that that is the season average price, not the price on one day, but the price over the course of an entire year. And I think it is important to recognize that we have a situation right now, where prices are high, but people are worried about price declines. But it is important to sort of wait until those price declines are realized and we understand what net farm income is in a given year before we sort of define whether there is a realized loss that is worth having some sort of policy intervention to cover.

The CHAIR. Very good. And, Dr. Outlaw, if you can answer the question as well.

Dr. OUTLAW. I tend to take a little bit different view. I look at the cost of production as basically something that tells me that we need to cover a good portion of the cost if we are going to keep people producing in this country. And one of the things that our center

has done for various Members of Congress over time was look at a lot of different ways of trying to attach escalators to the reference price, for example, that would take into consideration cost increases, and so that producers wouldn't be caught flat whenever prices—what we know is going to happen turn, Madam Chair, is that the prices are going to decline, but the input prices are going to stay up for a while. And they always do. And that is going to lead people to what we call a cost price squeeze. And so either looking at some sort of margin or building in the ability to ratchet up the reference price with costs is my suggestion.

The CHAIR. Thanks, Dr. Outlaw.

Dr. Rainey, is there anything that you would have to add to either one of those responses?

Dr. RAINEY. Again, I would focus in on the comments made by Dr. Outlaw. I think that the margins—because just focusing on price, you get in the situation we have now where input costs are increasing and inflationary pressures. And so you are going to have some intense pressure where that safety net will be weakened.

The CHAIR. Thanks, Dr. Rainey. And then, Mr. Craven, anything else to add?

Mr. CRAVEN. I would just second Dr. Outlaw's comments. We have looked at cost reduction for corn in Minnesota for 2023, and it is \$5.18, which is a long ways away from where we currently have in reference prices.

The CHAIR. Very good. Dr. Janzen, I am going to address my second question to you. I appreciate you sharing your insight on what you shared about commodity prices and the implication of Putin's invasion of Ukraine and the current and future farm policy. You talked about how the recent increases in commodity prices are expected to be larger than growth in input costs for corn, soybean, and wheat farmers for the marketing year of the 2022 crop. Coming into this growing season, and with the uncertainty producers face over input costs and market prices, can you talk about the sort of considerations that farmers are making in their inputs for this year and looking ahead to next year?

Dr. JANZEN. Right. There is tremendous uncertainty, and the capital required is massive. And those put everyone on sort of a little bit of unstable footing. The question I think for this, under the aegis of this Committee is related to what losses have occurred. And as of yet, those losses are not yet realized. We do have a crop insurance program that will step in, in the situation where production declines occur because of weather or other things beyond the control of the producers. That safety net is in place, and we have to let that sink in and play out.

The CHAIR. We could talk a lot deeper about this, but with the time expired, I will now recognize the gentleman from Georgia, Mr. Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Madam Chair.

And Mr. Craven, when you put that number up there on the *ad hoc* assistance, I assume that include the USDA Food Box Program, is that correct?

Mr. CRAVEN. Yes, that is correct.

Mr. AUSTIN SCOTT of Georgia. Okay.

Mr. CRAVEN. We didn't differentiate, so if the *ad hoc* included PPP loan forgiveness, the WIC programs, CFAP, the QLA payments, so there was a long list of payments that were in that *ad hoc* category.

Mr. AUSTIN SCOTT of Georgia. Okay. I will ask staff to do this, but I would like to see that chart without the food box and other things in there simply because I do know farmers who are literally carrying their crops under it, and had it not been for the food box program where we did some unusual things where we actually purchased the commodities from the farmers and delivered them to the American citizens, I can tell you we would have had a lot of hungry people inside this country.

And I do think that as this Committee pushes forward, if we deal with the crop insurance system in an appropriate manner, then there for the majority of the time should be less *ad hoc* assistance, including disaster assistance, if we get the crop insurance program correct. Would you agree with that, as an economist? That if crop insurance is handled properly, that we would need less *ad hoc* assistance?

Mr. CRAVEN. I would agree with that. And, I didn't talk much about crop insurance in my presentation.

Mr. AUSTIN SCOTT of Georgia. That is fine.

Mr. CRAVEN. I certainly think that is the basis that almost all producers rely on, at least commodity producers in terms of the first support net that we have out there.

Mr. AUSTIN SCOTT of Georgia. Let me mention, we have talked some about Russia and production costs. One of my farmers sent me these numbers. In May of 2019 he was paying \$248 a ton for nitrogen. In May of 2022, just a few days ago, he paid \$682 a ton. I think as we talk about Russia and even Belarus, we have to remember that Russia is the number one producer of nitrogen. And Russia and Belarus are number two and number three, I believe, in potash production, which we all depend on for the yields that we have in this country.

And so as we have touched on higher operating revenue in 2022, we have to have a long-term outlook for production agriculture inside this country. And so the 2022 forecasts are based on expected yields. Inputs have gone up, particularly fertilizer and diesel. I know many farmers are looking to save costs by applying less nutrients. We had an issue where Union Pacific curtailed fertilizer shipments. Now I understand that they undid that. But certainly if you don't have the ability to get the nutrients in the crop in a timely manner, then that impacts yield. If farmers are not able to get the nutrients on their crops, if this prevalent behavior results in lower yields, how concerned are you that actual operator returns would be significantly less than currently anticipated? Dr. Outlaw?

Dr. OUTLAW. Oh, very concerned. Aside from price, weather concerns around the country are still making it where some crops are not even in yet. So the producers that we deal with reach out to me on a daily basis, talking about the fact of individual instances of not being able to get different inputs, whether it be chemicals or nutrients. And this was a real challenge and it has kind of proved to be a challenge. Farming is an extremely difficult thing to do, even though they make it look these look easy at times. And

if we have any kind of weather blip, we are going to not have the yields. And as was stated earlier, we are going to have even worse price situation than when we thought.

Mr. AUSTIN SCOTT of Georgia. Well, I think navigating over the next year is going to be difficult for our farm families, but we have to have a crop insurance system that is going to allow them to navigate over the next decade. I don't want my country to become dependent on foreign sources of food, and I don't know any American that does. I would suggest that none of you has spoken about the removal of some of the products, I mean, glyphosate, Dicamba. As you remove those products from the farmers' tools, what is that going to do to the yields in this country? Dr. Outlaw?

Dr. OUTLAW. They are going to go down.

Mr. AUSTIN SCOTT of Georgia. I think that is important for Americans to understand, that as liberals use the courts and other things to remove the products that we need as farmers to produce the food supply for America and the rest of the world, that as our yields go down, the prices for Americans at the grocery store is going to go up.

With that, Madam Chair, I will yield back.

The CHAIR. Thank you, Mr. Scott.

I will now recognize the gentleman from Arizona, Mr. O'Halleran.

Mr. O'HALLERAN. Thank you, Madam Chair and Ranking Member, for this meeting today. It is important for getting prepared for the farm bill.

I have been interested in hearing what I have so far this morning. And it is my belief that we have to find a way for better flexibility, innovation, and timely action. Congress and government in the whole have to start to understand that these dynamic markets that we are seeing now are not going to go away anytime soon, and we have to be prepared for that in the long run. And that means being on our feet and ready to move instantly in many cases, as the world changes and climate changes.

Arizona has experienced the worst drought the region has seen in 1,200 years, and it is going to get worse. The arid climate and skyrocketing temperatures have only worsened since we passed the 2018 Farm Bill, and it is essential we update critical safety net programs to reflect these changes.

Nationally, producers are contending with high fuel and fertilizer costs. On top of this, producers are facing extreme drought conditions, run the risk of ultimately not being able to grow their crop because of soaring temperatures and wildfires. In fact, my last time in the district last week, as I went around it, it is probably—I have lived in Arizona now for 28 years. I have never seen conditions like this and with no relief in sight. Whether it is the Southwest or the South or anywhere else in our great country and the world, we have something that has to be overcome, and we can't do it by half measures.

So, Dr. Outlaw, because of more frequent and severe weather events, Congress authorized an *ad hoc* disaster assistance to supplement crop insurance and support uninsured producers. And how are producers in drought-stricken areas faring in the current state of the farm economy?

Dr. OUTLAW. Oh, specifically, due to the program you mentioned, you all have passed WHIP and the WHIP+ and then the new program that recently was rolled out is going to provide a lot of protection, which will help producers when they have had a loss, and it will help cover a portion of the deductible that they don't get paid on. So that has been a very important aspect of the programs.

Mr. O'HALLERAN. Thank you. Another question, are our crop insurance and disaster programs adequately supporting farm incomes affected by drought?

Dr. OUTLAW. Well, I would have to say they are because crop insurance is very strong. And, the way it works, most of their commodities, the price that establishes the amount of coverage is adjusted off of the futures market, which on an annual basis is really good. When prices are moving up, we have a lot of protection. So producers have a lot of protection through their products right now. And then with the new *ad hoc* disaster program that is going to pay part of the deductible back because of some sort of a loss, one of those being drought, then they are going to be made more whole is the way to say it. They are not going to be made whole but more whole.

Mr. O'HALLERAN. Thank you, Doctor. And, Dr. Rainey, Arizona's First Congressional District is home to many rural and Tribal communities that you know about, and many may not always have easy access to risk management programs. Could you please talk about the work the Southern Risk Management Education Center does to help underserved producers manage their risk and the type of outreach the Center does to these communities?

Dr. RAINEY. Yes, so we provide grants to actually hold face-to-face outreach trainings to help explain those different insurance products to the various groups, farmers and ranchers that are interested in them. We try to make connections with risk management agencies so that there is an additional agency there to help make the connection to some of the companies and the agents to talk about the different products and services that are available. So we are there as an educational endeavor to try to make those connections to make that process more transparent so that our farmers can not only understand the environment that they are facing, but understand the specific tools or what may be best for them to use, what insurance product would work best for them.

Mr. O'HALLERAN. Thank you, Dr. Rainey. And I see my time is almost up and I yield back. Thank you, Madam Chair.

The CHAIR. Thank you, Mr. O'Halleran.

I now recognize the gentleman from Pennsylvania, the Ranking Member of our full Committee, Mr. Thompson.

Mr. THOMPSON. Madam Chair, thank you so much. First question is, Dr. Outlaw, in your testimony, you mentioned the potential for Congress to explore a margin program. That is a concept that I have been interested in as, by and large, dairy producers in Pennsylvania have been pleased with how the Dairy Margin Coverage has functioned after we made key improvements in the 2018 Farm Bill. Could you perhaps explain a bit further on how something like that might work for row crops in particular, and what would be the benefits of a margin-based program *versus* a support based on price alone?

Dr. OUTLAW. Well, clearly the benefit is that it would take into consideration both the cost side and the revenue side where we are largely protective of the revenue side in this country. That would definitely be one of those things that I would hope that you would ask our center to look into for you, or for this Committee because it would—on the surface it sounds relatively easy. I know that those of you that were involved in the dairy program know that it took a little bit of time to get it to where that worked well.

Mr. THOMPSON. Yes.

Dr. OUTLAW. And what I would say is maybe you would want to consider doing a pilot for a certain commodity because while it was very simple to—among us economists, we would come up with, well, on the on the cost side, fertilizer, clearly fuel and labor, and there are a whole lot of things that would matter for a certain set of crops that might not matter as much for another set of crops. So we would have to be really careful to make sure that we did it balanced, but it would be worth looking at for sure.

Mr. THOMPSON. Yes, absolutely. I mean, there are a lot of variables in farming, right, soil types, climate, moisture. But the bottom line is that agriculture is a business. At the end of the day, it is not what you bring in, it is the margin you are left with. And I have tremendous concerns with where we are heading right now.

On that note, while prices for most commodities are at high levels and some paint a rosy picture for agriculture, I think it is mostly by folks who really don't understand that farming is a business, and at the end of the day, it is the margin you are left with, if any. I am not optimistic about this.

Net farm income projections are based on an expectation of average yields, which is not a given. Additionally, it will only take some softening of prices before producers may be underwater, as you have well-stated. Commodity prices can drop overnight, but input costs, once they are up there, it is difficult to see them lower. Would any of our witnesses care to speculate—I am asking for your crystal balls now I guess—about how long we might expect bullish commodity markets? And when prices do begin to moderate, how long would you expect it would take for production expenses to the fall? Or is this the new normal? And I know it is speculation.

Dr. JANZEN. I think we can say from the price signals that we see right now, prices will remain elevated for the 2023 crop. The new 2023 prices for delivery for that harvest are still well above historic levels, levels that, say, wouldn't cause the PLC program to kick in, for example.

Now, probably the biggest factor is obviously the war in Ukraine. Some resolution to that conflict will lower commodity prices, both on the output side and the input side. But I think you are right, that there is significant concern that even on the input side, there are a host of issues around the world that would leave input prices elevated. And that is that is a concern for us agriculture, going forward.

Mr. THOMPSON. Yes, just the clearing of those mines in the port of Odessa to allow those grain elevators to be offloaded so they can be refilled. Any of the other witnesses, any thoughts or comments on that particular question?

Mr. CRAVEN. I guess as we look back, Congressman, at 2012 and how many years it took for costs to come back in line with lower prices, it was a 4 or 5 year process before things got lined back up again. So it takes a long time to get those back down, as Joe pointed out earlier.

Mr. THOMPSON. Yes, now, I am going to tee this one up and would love to follow up individually with you just because all the time remaining. I have been hearing a lot about—and I want to kind of look at the economic impact on commodity prices, but it is a total curveball. It has to do with solar fields being on fertile farmlands. And I think some of our other Members of the Committee are hearing about this as well. That is putting out policies that—policies have impact, right? I am recently hearing a lot of discussion and concern that government policy is incentivizing placement of solar farms on fertile farm, not marginal, but fertile farm land driving up the competition for leasing acreage, and that is really important for our young and beginning farmers. And so I would love to follow up with you, any thoughts you might have in writing or in person, if this is or could be a significant input cost variable going forward, just cost of acreage.*

Thank you, Madam Chair.

The CHAIR. All right. Thank you, Mr. Thompson.

I now recognize the gentleman from Florida, Mr. Lawson.

Mr. LAWSON. Thank you, Madam Chair and Ranking Member Scott, for hosting this important hearing. I would like to welcome all of the panel to the Committee because it is very important area.

Federal crop insurance is a hugely successful public-private partnership, that today's stands as the primary safety net for the U.S. producers. However, in your testimony, Mr. Rainey, you discuss a lack of understanding among insurance companies on available products and the lack of engagement with certain producers. What do you believe, Mr. Rainey, Congress can do to bridge the gap and encourage insurance companies and their agents to diversify their portfolio and continue to outreach to socially disadvantaged farmers?

Dr. RAINEY. I do think that it is a pervasive issue. And sometimes I think it is just some of the economics of it because—so if I am an insurance agent and company and I am in a high intense row crop commercial area, if I got a portfolio full of large-scale, commercial, row-crop producers, I may not even take the time to learn about whole farm revenue, which is what our specialty crop—what some of our small growers would be interested in. So any way to enhance that training or understanding because at the end of the day, some of those agency companies will tell those farmers, oh, we don't offer that or they will try to send them to someone else. And some of it is just a profit motive. So as you explore that engagement, I think there is some education with the companies and agents on—to me, it is an entrepreneurship opportunity to diversify their staff to serve this need and really look at what is an economic benefit to those companies and those agents to serve those underserved areas if you will. I think that will be a first step is to really

* **Editor's note:** the responses to the information referred to are located: for Dr. Janzen, on p. 1013; Mr. Craven, on p. 1014; and Dr. Outlaw, on p. 1014.

have a real discussion with the companies and agents about—or understanding on the areas that they are not serving because I think there is a lack of understanding of crops outside of their traditional audience that they have historically served.

Mr. LAWSON. Okay. Thank you. And I would just like to say my district is no stranger to the worsening and more frequent severe weather events and importance of *ad hoc* disaster assistance of our producers. The next question will be—this question is for all the panel. As we enter into the negotiation of the farm bill, should Congress consider a permanent disaster program? How do you believe a permanent system could build upon existing Title I and Title XI programs? And this is for the panel.

Dr. OUTLAW. I will take the first shot. Thank you. In general, the crop insurance industry and the products that are available are sufficient. What we have found over time is that natural disasters don't worry about what policy you bought. And so it has been a case where there has been added help provided to cover a portion of the deductible area.

It is certainly within logical thinking to think that if we have done this 5 years in a row, likely, we are going to continue to do this. There are going to be natural disasters. And it would be helpful if there was a plan in place or a set of rules in place of exactly how it was going to work so that producers would understand what kind of help they might get if this happened and not leave it to chance or whether you get something passed.

Mr. LAWSON. Anyone else like to respond?

Dr. JANZEN. The issue in developing a standing disaster assistance program is always how to define what constitutes a *disaster* and when will the government step in and when will they not. And that is why these programs have been *ad hoc*. And the crop insurance program does a good job of defining the *types* of losses that will be covered. And so a standing disaster assistance program looks a lot like insurance but covering the things that we didn't know about the future.

Mr. LAWSON. I tell you what, I reclaim my time, Dr. Outlaw, you mentioned in your written testimony that producers should not be forced to choose between Agriculture Risk Coverage and Price Loss Coverage, but the farmer should receive benefits from whichever is higher in a given year. Could you comment on that for me please, sir?

Dr. OUTLAW. Yes, sir. In the 2014 Farm Bill, that decision was a one time for the life of the farm bill decision. And it really stressed producers out trying to make that decision for the next 5 years, much less what is going to happen this year. The 2018 Farm Bill changed that and made it an annual decision after the first 2 years. And producers would have to decide on an annual basis which of those two products they wanted to go to. All I am saying is take the decision away from them and allow them—if there is a benefit to be had, allow to have the higher of the two. A lot of times they are both going to be negative or, I mean, not negative but zero. But they are good at farming, and they don't want to make this decision. And really, it puts a lot of undue stress on them. Just give them whichever would be higher, and it can be scored that way.

Mr. LAWSON. Okay, my time has run out. Madam Chair, I yield back.

The CHAIR. Thank you, Mr. Lawson. I now recognize the gentleman from Arkansas, Mr. Crawford.

Mr. CRAWFORD. Thank you, Madam Chair.

Dr. Outlaw, you may recall, not long ago, back in March, we had this conversation about the state of the rice industry. And, as the Representative of the largest rice-producing district in the nation and largest rice-producing state in the nation, obviously, I have some concerns about that. It should be talked about here, the farm safety net, particularly PLC, isn't working well for rice producers under the current circumstances. And obviously—and we have talked about this. We know we need to enhance that in the next farm bill.

But, you also mentioned during that hearing, you said the rice industry was not doing well. The rice farmers are not seeing the increases in prices as other commodities are but experiencing the same pressure with regard to input costs. I have done a little bit of math just since we have been sitting here, and I am not a mathematician, but based on the conventional enterprise budget in Arkansas cost per acre, roughly \$554 per acre, of that, 48 percent is fertilizer costs. I mean, just fertilizer cost accounts for almost $\frac{1}{2}$ of that enterprise budget. Average yield, 169 bushels an acre. You are a heck of a lot better at this than me, but those numbers look like they don't really pencil out well. You were working on a study for Senator Boozman as well as Congresswoman Letlow. Can you give me an update on that and how those numbers are shaking out if it has gotten worse?

Dr. OUTLAW. Yes, sir. The testimony today included the analysis of the request from Senator Boozman, and it showed that the only farms we have that really aren't going to cash flow this year are rice farms. And $\frac{2}{3}$ of them will not cash flow. So we have 15, so you can do the math. That is 10 out of 15 will not cash flow. Certainly for other industries that prices have risen and it is it isn't a big concern. But for this industry in particular, there are a lot of reasons for that, which I would call trade distortions from other countries. There are a lot of reasons why rice is different. But certainly, I would think that there would be cause for this body and the larger body to do something for rice starting this year.

Mr. CRAWFORD. And what would you suggest? Because, we can spitball about ideas to help, crop-specific. Rice is one of those that is kind of a staple item outside of the United States. So we rely on—we look to foreign markets to move our rice. In fact, we are not one of the biggest rice-producing nations in the world, yet we are in the top five in exports. Is that not true?

Dr. OUTLAW. Yes.

Mr. CRAWFORD. So what do we do to enhance that? I mean, should we put a little more emphasis in our trade relationships with regard to rice? I know it is a sensitive area, particularly in Asia. But I mean, what would you suggest? And, in the absence of—I mean, we are not going to reauthorize the farm bill today, but what could we do?

Dr. OUTLAW. Well, certainly, holding other countries accountable to what they have agreed to do, and trade negotiations is number

one. And I think there are a couple in particular we could talk about. But short of that, I would say that, hopefully, there would be a situation with some bill that was going to move this year that you could increase, add some assistance targeted towards rice producers. I don't usually say those types of things, but this is completely different than for every other crop. And unless we want to lose producers, which basically rice has got a different infrastructure, we are going to lose that infrastructure. And unless we want to worry about doing that, then we need to provide some help relatively soon.

Mr. CRAWFORD. Relatively soon, and what type of help would we be talking about? Now we mentioned in our last visit in this room, we talked about the potential for indexing production costs. When the farm bill in 2014 was implemented, we were basing that on 2012 figures, so we were already 2 years behind, but we made the mistake of not indexing those production costs. So now bringing that into 2020, you have seen a huge disparity in cost of production in the last several years. Is that an appropriate response?

Dr. OUTLAW. Yes, I think so. And obviously, as was stated earlier, we have spent a lot of money on CFAP and MFP for losses that were likely to happen that didn't actually materialize completely that we thought, and I am telling you, these losses are going to happen. And so, specifically, the mechanism to do it, I think that you could use some of the formulas from CFAP in particular and adjust them and get some money to the producers.

Mr. CRAWFORD. Thank you. I have run out of time, but I appreciate your input. Thank you.

The CHAIR. Thank you, Mr. Crawford.

I now recognize the gentleman from Georgia, Mr. Allen, for 5 minutes.

Mr. ALLEN. Thank you, and I appreciate this hearing today. Obviously, it is timely because I had the folks with Farm Bureau in my office yesterday, livestock folks, and now we have a shortage of hay because of the drought. And so I don't know. Every time we turn around, we have another emergency. But, Chair Bustos and Ranking Member Scott, I thank you for holding this important hearing and to talk about these threats, particularly to our food supply.

As we come closer to the time when Congress will write a new farm bill, it is important that we hear from all of you on how these programs are working for our farmers and what improvements need to be made. I believe that our main approach to writing new farm bills should be a cautious one. The years since 2018, when the most recent farm bill was signed into law, have been so chaotic and unprecedented, not only from the overall economic picture in this country, for example, the war on fossil fuel, and now it appears there is a war on agriculture, we shouldn't make major changes to Title I and Title XI programs unless we are able to fully evaluate the potential consequences of those changes.

Before turning to questions, I will make one final comment. Though commodity prices are higher right now, input prices are rising at an even faster rate. And of course, we have heard that in your testimony. If my farmers have no way of protecting their margins, we could have another 1982 here, which was the last time

that we had unprecedented inflation and a lot of guesswork on how—so many surprises out there. And coming from the business community, surprises are a real problem.

Dr. OUTLAW, again, I thank you for your testimony. It is particularly timely when I am hearing from all my farmers about the rising input of prices right now. Can you talk more about how we might better protect farmers and deal with all of these changes? Now, obviously, the war in Ukraine, we can all say, “Gosh, I wish we would have done more to prevent that because now we are seeing the repercussions of it.” And, frankly, I don’t know why the world’s sitting around allowing one country to cause famine throughout the world. I mean, there ought to be repercussions for that. But at any rate, have you looked at any options as to what we can do with the present situation?

Dr. OUTLAW. Well, yes, sir. Our group has looked—over time, we have been asked by various Members of Congress to look at indexing up the reference prices to more closely account the cost changes that their producers are dealing with. And so we have done that a lot of different times, and it is difficult to do. And it is difficult to do in real time because most of the official data we get from USDA has lagged and things like that. But certainly, it is worth looking at, again, specifically in this environment. It has been brought up a couple of times about margin protection for crop producers. That would include both the price side and the cost side. While it is complicated, as is anything we do, anything worth doing. The protection measures that we use are going to matter a lot as we go forward, so just because it is complicated or hard to do doesn’t mean we shouldn’t look at it.

Mr. ALLEN. Well, from my economic experience, supply and demand is what guides everything. We know because of events around the world, demand is going up. And of course, I think the world is going to be looking at the United States to put forth every effort to make sure people aren’t starving to death. That is going to require farmers for bigger yields, borrow more money and farm more acres. And so as far as demand, have you made any projections on what this thing could look like?

Dr. OUTLAW. In particular, our group works with FAPRI out of the University of Missouri to do that side of the national and international price projections. But having done all this for 30+ years, like Joe said earlier, these prices are going to come down. We can’t anticipate what is going to happen with the war stuff. That is the only reason why I would be sitting here saying I have no idea.

Mr. ALLEN. So how are prices going down if demand is exceeding supply?

Dr. OUTLAW. One of the things that will happen was—well, we had higher prices before Ukraine, and the reason why was because we had droughts around the world and other problems. So those are going to get satisfied a little bit, and then Ukraine won’t be quite as big a problem, I think.

Mr. ALLEN. Right. Okay. As far as a lack of agronomic inputs, a lot of my farmers have signed on to a petition dealing with that, and I am about to run out of time, but the 2022 MPCPI policy, could you comment on that proposal?

Dr. OUTLAW. I am not sure I heard what you said.

Mr. ALLEN. Farmers in my district have signed on to a petition which requests that a lack of agronomic inputs be included as covered peril under the 2022 MPCCI policy. Can you comment on that?

Dr. OUTLAW. I would say that—

[The information referred to is located on p. 1015.]

The CHAIR. Why don't we give you time to answer that later? The time has expired by more than a minute, so I am going to go ahead and move on.

Mr. ALLEN. Okay. Well, I am sorry.

The CHAIR. Thank you, Mr. Allen.

I now would like to recognize Mr. Mann from the State of Kansas, for 5 minutes.

Mr. MANN. Great. Thank you, Madam Chair, for letting me ask questions, and thank you for hosting this hearing.

President Eisenhower was from Kansas, grew up in my district, and he used to say that: "Farming looks mighty easy when your plow is a pencil and you are a thousand miles from the corn field." And there is a lot of lot of truth in that.

I think we are having a lot of conversations about the input side, which is what we need to be talking about, the biggest issue facing the First District of Kansas today and moving forward. I think we have to acknowledge that to a large degree this is self-inflicted. I mean, this irrational war on fossil fuel is the basic reason we have seen these input prices increase. It is also self-inflicted because this war against our chemicals and how modern agriculture works, this just makes no sense, the policies that we are pursuing, so that happens. And then things come along that may or may not be within our control like Ukraine that just exacerbates the problem. So I think we have to acknowledge that.

We all know this crop insurance is absolutely vital. And it does two things: It benefits farmers, but it also benefits Americans because we have never had to rely on another country for our food supply. We get that wrong, the whole world looks entirely different. Certainly, our country looks different.

And I know we have talked a little bit of this, but for you specifically, Dr. Outlaw, given the ability to make some changes to crop insurance this year—and I think we need to use a scalpel and not a sledgehammer—but what specific changes would you make, would you advise that we consider making to the crop insurance program in this next farm bill?

Dr. OUTLAW. Really, I don't have very many changes other than there is a situation right now with the basically the ethanol situation, USDA capped the A&O for agents, and that has caused a problem with providing insurance policies to the specialty crops. And that to me is one of those things—I am not an expert on it, but I have been reading about it, and it is one of those things that needs to be adjusted sooner rather than later.

In terms of the rest of the crop insurance products, obviously, we have a really good system in place where new policies can be developed and the government helps policies be developed and paying for the costs, which will make it more likely. So I really can't say that there is anything else that really needs to be looked into for crop insurance other than that A&O issue that, again, I am not an expert on but I know it is out there.

Mr. MANN. Okay. Based on recent drought monitoring indexes in Kansas, and we have some areas that are 10" to 15" behind annual rainfall this year, so in areas of the country, certainly severe drought, which is leading to less forage, less hay, less ability for our livestock producers who also are facing record inputs. A question for you, Dr. Rainey, can you speak more to the value of the current risk management products available to our livestock producers?

Dr. RAINEY. I think that they have been enhanced recently. I still think that there is—as farmers learn of these products, I think there are opportunities for technical assistance to help enhance the understanding in how to use those products more effectively. I think if you are going back to what you were talking about in general crop insurance, I think that the metric is protection to the farmers and ranchers. And as we look—and sometimes we can look and see where their product is being used or not and actually just do some follow up to get some feedback on why products aren't being used. And sometimes that is the indicator of that lack of understanding or additional work being needed to change some of the parameters of the program.

Mr. MANN. Great.

Dr. RAINEY. And so I think that especially I have heard a lot of success stories from a lot of our livestock farmers in terms of the forage, in terms of drought products that have been advanced that are really helpful as we see this enhanced issues with climate variability.

Mr. MANN. Yes, thank you. Last, I will just say, while we are discussing these tools available to farmers and ranchers across the country, I think we also have to take a moment to discuss the impact of some of the Administration's proposed changes to the Tax Code. Specifically, President Biden's most recent budget once again included eliminating the stepped-up basis and also includes imposing capital gains taxes on farms, ranchers, and businesses that have been held in a family for over 90 years or more. I am calling this the farm killer tax because it would destroy the livelihood of producers across the country.

Dr. OUTLAW, my last question would be to you. Have you examined what the impact of changes to the Tax Code would have on farms and ranches? And can you expand on what an elimination of a stepped-up basis or the new farm killer tax would mean for farm country?

Dr. OUTLAW. Yes, so we actually did a study at the request of Ranking Member Thompson and Senator Boozman last year that, across all of our 94 farms, 98 percent of them would be affected by the elimination of stepped-up basis at an average cost of \$750,000 extra in tax.

Mr. MANN. Yes, once again, in my view stepped-up—or this would be self-inflicted nonsense, and we got to make sure we don't let that happen to our ag producers.

So thank you. With that, I yield back.

The CHAIR. Thank you, Mr. Mann.

I now recognize Mr. Rouzer from the State of North Carolina for the next 5 minutes.

Mr. ROUZER. Thank you, Madam Chair. And I appreciate our witnesses being here today very much.

Energy and food are both critical to our national security, and not just that, everybody's survival, basic survival. I certainly don't mean to be pessimistic, but I think the next several years are going to be pretty challenging. I don't see inflation going anywhere for the next several years. Interest rates are going to be a lot higher. Much higher input costs are going to be with us for some time.

And a subject I want to explore a little bit that really hasn't been discussed today in terms of the direct payment that was put in place in the 2002 Farm Bill for our program crops. If you look at that period of time, 2002 to 2014, of course, not all things are comparing apples to apples necessarily; but, we didn't have as much *ad hoc* assistance. Again, not all things are equal, but I do think that is notable. What are the pros and cons to reinstituting that? One of the nice things about it was it was WTO-compliant, it was simple, it was easy. When we did have *ad hoc* disaster assistance payments, it was easy to piggyback on. Again, everything has its pros and cons. But I was just curious from the panel, if you can discuss your thoughts on that. And maybe now is a good time to reinstitute that, given the input costs that are going to continue to be exceptionally high. And it is simple. It is easy as compared to some of these other alternatives. Any thoughts on that? Dr. Outlaw, I will start with you.

Dr. OUTLAW. Okay. Sure. I have studied this my whole career, and really, there was nothing at all wrong. The producers liked the direct payments. There became a lot of different names for these payments, but they started off as PFC payments and that changed over time. But really what happened was that we had a good series of good years in agriculture and they were very hard to defend, giving payments to producers when they didn't need them. And so people were thinking about just going to a situation—and it was brought up a number of different times by different people on could a trigger be put in place so the fixed payment comes if things are needed and that doesn't happen if it doesn't trigger again? It makes it kind of a countercyclical payment, but at least it is a fixed amount and the producer would know what they were going to get. It has been like that a lot of different ways, but I will just—I don't want to take all the time. But in my opinion, the public opinion of giving producers money when things got good was what ended that program.

Mr. ROUZER. Sure. Well, obviously, we are in a different environment now. So, the ground might be a little more fertile.

Any other comment or thoughts?

Dr. JANZEN. I think it just speaks to the issue of targeting that I mentioned in my testimony, the idea that the demand for assistance tends to be greater at different times. And the demand from producers for assistance is stronger in certain times than others. And if you provide payments in times when that demand is low, that is not going to achieve the policy objectives that we want, which is to keep farmers going through those tough times.

Mr. ROUZER. Any other comment from any other panelist?

Mr. CRAVEN. I guess, Congressman, in the material I presented, the ARC/PLC payments remained relatively flat through the last 5,

6 years. In fact, it is down in 2021. The direct payments wouldn't react to the kind of situation we have seen the last 3 or 4 years. And the *ad hoc* payments have certainly been the thing that have helped producers in this period. And I am not sure a direct payment would react quick enough.

Mr. ROUZER. Okay. Any other thoughts? One quick last thing. There is one thing worse than high input costs, and that is no inputs. I am concerned about the availability of fertilizer as we move forward. Any thoughts on that or any insight that you all might be able to provide on that front? Any projections?

Dr. OUTLAW. If you read the press as much as the rest of us have to, you would feel a little bit encouraged that they are going to get the bottlenecks figured out. But certainly, the industry has a lot of questions that somebody needs to ask.

Mr. ROUZER. My time has expired. I yield back. Thank you.

The CHAIR. Thank you, Mr. Rouzer. I now would like to recognize Mr. Baird from Indiana, who is on with us virtually, for the next 5 minutes. Mr. Baird, your camera is off. Oh, it looks like maybe it is on now if you can—

Mr. BAIRD. Thank you, Madam Chair. And I really appreciate this Committee. I appreciate this hearing. And I always learn something.

So I was really just listening in to hear all the comments. And I think the farm bill is so important to the rural communities like my district in west central Indiana. So I really appreciate the expertise that you have with the Committee and the witnesses today. So thank you very much, and I will yield back.

The CHAIR. All right. Thank you, Mr. Baird.

So before we adjourn today, everybody has had a chance to ask questions, I would invite the Ranking Member to share any closing comments that he may have, Mr. Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Madam Chair. And I want to thank the people who have testified before the Committee today. I mean, your input will be key to us as we write the next farm bill. About 90 percent of the ag production in this country comes from around 12 percent of the farms. And whether you are a big farmer or a small farmer, the dollars in and the dollars out have to yield to positive revenue or you are not going to be in business. And this is not about every individual farm inside the United States. It is about domestic agriculture production and making sure that Americans aren't dependent on foreign sources of food, and it has everything to do with our independence as a country. And working through the next farm bill and how we handle crop insurance and disaster payments is key to making sure that we are able to keep our domestic ag production afloat during these hard times.

I want to thank you for coming. I want to thank the Chair for having the hearing. I think it has been a good hearing, and I look forward to continuing this discussion as we mark up the next farm bill.

The CHAIR. Very good. Thank you, Mr. Scott. Mr. Thompson, as the Ranking Member of our full Committee, would you like to make any closing comments?

Mr. THOMPSON. No, I know, votes are coming up here soon, so I just want to say thank you for your leadership and the Ranking Member's leadership on this incredibly important work. Farming, as I said before, agriculture is a business. And at the end of the day, it is a margin. And these are some challenging times based on the testimony we have heard and the things that we are hearing at home, too. And it is just great to have these four economists as a part of our farm team to be able to lean on and to get your input. And we will continue to lean on all four of you, so thank you so much for being here and participating today.

The CHAIR. Thank you, Mr. Thompson. And I want to thank our Members for participating today and also our witnesses. We are grateful to you. You shed some light on what is going on out in the countryside, and that is very helpful to us as we gear up to figure out what is going to go into the 2023 Farm Bill, so we are really grateful to you for your time.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member. This hearing the Subcommittee on General Farm Commodities and Risk Management is adjourned.

[Whereupon, at 10:31 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED ARTICLES BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA

ARTICLE 1

THE WALL STREET JOURNAL

[<https://www.wsj.com/articles/farmers-feel-the-squeeze-of-inflation-11644921180>]

Farmers Feel the Squeeze of Inflation

Higher costs for seeds, fertilizer, weedkillers and labor could push up grocery bills this year, researchers say



Even as crop prices remain high, supply costs are expected to outpace the price of agricultural goods in 2022.

By PATRICK THOMAS¹

Photos by Veasey Conway for *The Wall Street Journal* Feb. 15, 2022 5:33 a.m. ET

Inflation is growing on the farm.

American farmers are paying significantly higher prices for their weed-killing chemicals, crop seeds, fertilizer, equipment repairs and seasonal labor, *eroding some of 2021's windfall*² from rising crop prices. *Higher farm costs*³ could help push up

¹ <https://www.wsj.com/news/author/patrick-thomas>.

² <https://www.wsj.com/articles/surging-grain-prices-fuel-surprise-farm-recovery-11611322634>.

³ <https://www.wsj.com/articles/surging-fertilizer-costs-push-farmers-to-shift-planting-plans-raise-prices-11639580768>.

grocery bills further in 2022, analysts say, following a year in which *global food prices rose*⁴ to decade highs.



Brooks Barnes, a second-generation farmer in Wilson County, N.C., says he plans to reduce acres dedicated to fertilizer-intensive crops.

“I just don’t see how I’m going to get paid this year,” said Brooks Barnes, a second-generation farmer in Wilson County, N.C.

Mr. Barnes said he spent more than he ever had to operate his farm last year. Higher commodity prices at the time covered most of those cost increases. Facing even higher prices now, he doesn’t expect that to be the case for 2022.

On his farm where he grows tobacco, corn, soybeans, wheat and sweet potatoes, Mr. Barnes in the spring of 2021 said he paid \$16 a gallon for *Bayer*⁵ AG’s Roundup, the world’s most commonly used weedkiller, for his crops. By September he bought it for about \$40 a gallon and in February, his Nutrien Ltd. retailer told him it was \$60 a gallon, he said. One of the fertilizers he buys, 24s, cost him \$500 a ton from \$175 last spring, he said. Float bed plastic, which holds water for his tobacco plant trays to float on in his greenhouses, cost him \$82 a roll, compared with \$70 a year ago.

⁴ <https://www.wsj.com/articles/where-inflation-is-hitting-hardest-prices-of-groceries-utilities-rent-jump-11644519819>.

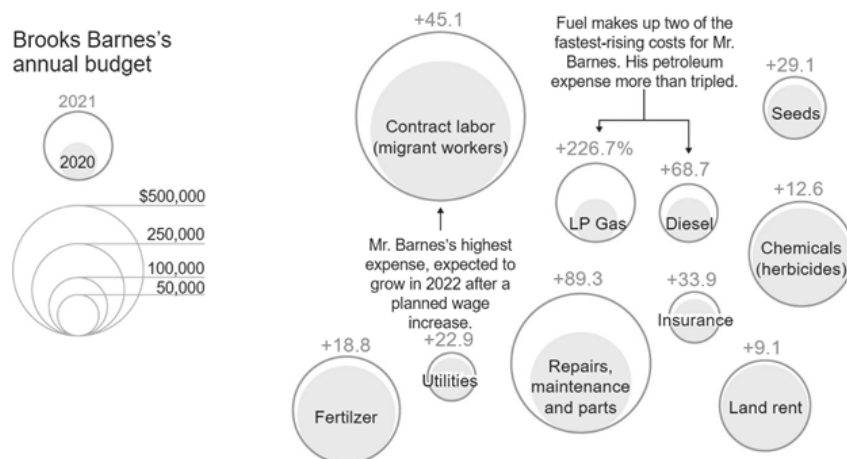
⁵ <https://www.wsj.com/market-data/quotes/BAYRY>.

"I've always been excited to start a new crop but I'm not excited at all for this one," said Mr. Barnes, who has been farming full-time since 2004.

Supply-chain constraints and staffing problems are leading to higher prices for products and supplies across a variety of industries, especially food. U.S. inflation *hit its fastest pace in nearly 4 decades*⁶ last year. Food prices surged 7% in January, the sharpest rise since 1981, the Labor Department on Thursday said, as meat and egg prices continued to climb at double-digit rates.

A rally in prices for agricultural commodities such as corn and soybeans, which kicked off in mid-2020, pushed up incomes for U.S. farmers and led them to *spend more freely on farmland and machinery*.⁷ In 2021, U.S. farms' net income was estimated to be about \$117 billion, up 23% from 2020, according to the U.S. Department of Agriculture.

Even as crop prices remain high, supply costs are expected to outpace the price of agricultural goods in 2022, according to a January report from the Federal Reserve Board. Net income for farmers in Kansas is estimated to fall 65% from a year ago, according to a January study from Kansas State University.



Source: WSJ analysis of Mr. Barnes's annual budget. Stephanie Stamm/
The Wall Street Journal.

Growers' biggest expenses each year, including fertilizer and crop chemicals, such as glyphosate, used to kill weeds and other pests are soaring in price. Glyphosate, Roundup's active ingredient, is up about 250% from what it was 12 months ago, said Dean Hendrickson, vice president of marketing and business development at *CHS*⁸ Inc., a farm cooperative and major retailer of seeds and chemicals.

Bayer attributed the recent increases in glyphosate prices to a global shortage caused by weather events, energy restrictions, high demand for transportation and global supply-chain challenges, a spokeswoman said.

"We expect challenges to the global ag industry to remain in 2022 and beyond," the company's spokeswoman said.

⁶ <https://www.wsj.com/articles/us-inflation-consumer-price-index-january-2022-11644452274>.

⁷ <https://www.wsj.com/articles/u-s-farm-belt-revival-prompts-mad-dash-for-dirt-and-iron-11632657604>.

⁸ <https://www.wsj.com/market-data/quotes/CHSCP>.



Mr. Barnes says his goal is to break even this year.

Bayer said Monday that a supplier of an ingredient for glyphosate ran into mechanical problems that may hamper production of the herbicide. The company said the supplier is on track to restore production, and Bayer said it expects any impact to be marginal in terms of its annual glyphosate production.



The Federal Reserve has signaled it plans to raise interest rates in 2022 in response to stubbornly high inflation. WSJ's J.J. McCorvey explains what higher rates could mean for your finances. Photo illustration: Todd Johnson.

Editor's note: the video is retained in Committee file.

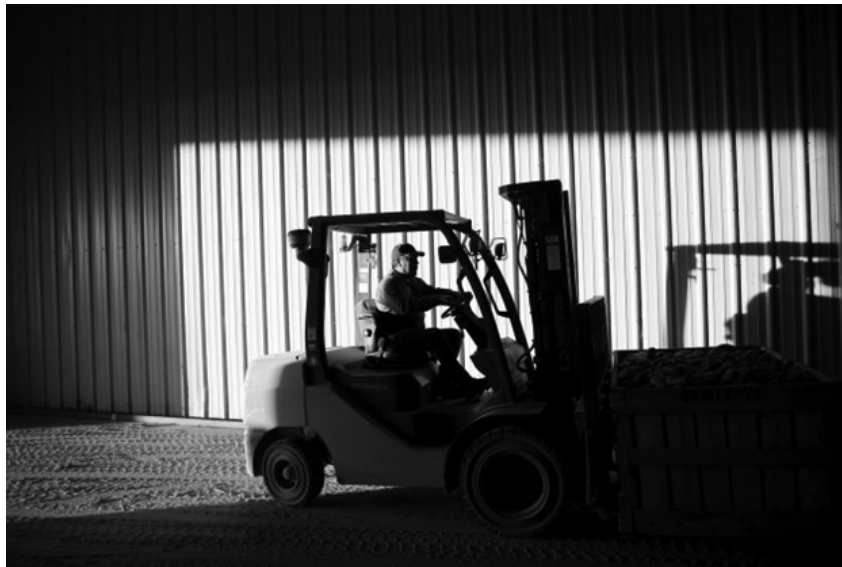
Seed prices are also up. Crop-seed and pesticide supplier *Corteva*⁹ Inc. said prices that it charges farmers for seeds rose 10% in its most recent quarter and its crop-protection products were up 6% compared with the prior year to offset inflation.

⁹<https://www.wsj.com/market-data/quotes/CTVA>.

“We’ve demonstrated that we can move prices to cover costs and grow margins,” said CEO Chuck Magro.

The price of anhydrous ammonia fertilizer is up more than 200% from a year ago at \$1,492 per ton, an all-time high, according to agricultural research firm DTN. Fertilizer price increases partly stem from elevated natural-gas prices, a key ingredient for nitrogen-based fertilizers, as well as severe storms in the U.S. that disrupted production plants earlier this year. Major fertilizer producers including China, Turkey, Egypt and Russia also curbed exports in the second half of 2021, further pushing up global prices, analysts and retailers said.

Some farmers also blame fertilizer companies for the rising prices. A recent study from Texas A&M, commissioned by state corn growers associations, suggested that fertilizer costs tend to go up when corn revenues increase, even after accounting for natural-gas prices and higher demand.



Boxes of sweet potatoes are moved inside a climate-controlled barn on Mr. Barnes’s farm in Lucama, N.C.

“Our cost to buy products from our suppliers went up and therefore our prices for customers have increased,” said Jeff Tarsi, head of global retail operations at Nutrien, a major fertilizer supplier.

The potential for higher farming costs to cut into production of corn and other crops could fuel continued food-price inflation, analysts said. Higher corn and soybean prices, for example, raise the cost of animal feed for meat companies, *which pass along the increase to consumers*.¹⁰

“I don’t think there is any reprieve for food prices to come down,” said Kevin McNew, chief economist for the Farmers Business Network, an online marketplace for agricultural supplies. “It’s not just a logistics issue, or supply-chain issue to grocery stores, it’s deeper rooted than that.”

Because of the higher costs, Mr. Barnes said he is holding back on many of the purchases he had hoped to make this year, including a new combine. He put his annual hunting trip to Saskatchewan, Canada, on hold this year, for fear his budget might be too tight.

Like many other U.S. farmers, Mr. Barnes also plans to adjust this year by reducing acres dedicated to fertilizer-intensive crops, and planting more soybeans and wheat, which tend to require less nutrients. Planted U.S. acreage of soybeans this year is projected to be up about 6% from last year and exceed corn for the third

¹⁰ <https://www.wsj.com/articles/tyson-posts-higher-quarterly-profit-on-price-increases-strong-demand-11644241426>.

time in history, according to Farm Progress, a division of research firm *Informa*.¹¹ The only other times were in 1983 and 2018.

“My goal for the year is just to break even,” Mr. Barnes said.



Greenhouses on Mr. Barnes's farm.

Corrections & Amplifications

If planted soybean acreage in the U.S. were to exceed corn this year, it would mark only the third time for that to happen, the prior years being 2018 and 1983. An earlier version of this article, failing to cite 1983, incorrectly said it would be the second time and that the only other time was 2018. (Corrected on Feb. 16.)

Appeared in the February 16, 2022, print edition as *'Inflation Hits Farmers, Stalks Food Costs'*.

ARTICLE 2

THE WALL STREET JOURNAL

[<https://www.wsj.com/articles/farms-are-failing-as-fertilizer-prices-drive-up-cost-of-food-11642770182>]

'Farms Are Failing' as Fertilizer Prices Drive Up Cost of Food

Farmers in the developing world say they are curtailing production, which means global hunger could worsen

¹¹<https://www.wsj.com/market-data/quotes/UK/XLON/INF>.



Fertilizer prices and shortages are hurting farmers; phosphate fertilizer being moved at a warehouse in Russia last month. Andrey Rudakov/*Bloomberg News*.

By JON EMONT,¹ in Singapore and JENNY CAROLINA GONZALEZ in Bogotá, Colombia

From South America's avocado, corn and coffee farms to Southeast Asia's plantations of coconuts and oil palms, high fertilizer prices are weighing on farmers across the developing world, making it much costlier to cultivate and forcing many to cut back on production.

That means grocery bills could go up even more in 2022, following a year in which *global food prices rose to decade highs*.² An uptick would exacerbate hunger—already acute in some parts of the world because of pandemic-linked job losses—and thwart efforts by politicians and central bankers *to subdue inflation*.³

“Farms are failing and many people are not growing,” said 61 year old Rodrigo Fierro, who produces avocados, tangerines and oranges on his 10 acre farm in central Colombia. He has seen fertilizer prices double in recent months, he said.

¹ <https://www.wsj.com/news/author/jon-emont>.

² <https://www.wsj.com/articles/global-food-prices-surge-as-inflation-spreads-11636119367>.

³ <https://www.wsj.com/articles/central-banks-around-the-world-raise-rates-as-fed-prepares-move-11639750006>.



A coffee plantation in Brazil earlier this month. Photo: Jonne Roriz/*Bloomberg News*.



A woman harvesting in a field in Ivory Coast. Fertilizer demand in sub-Saharan Africa could fall 30% this year, which nonprofit International Fertilizer Development Center says would translate to a loss in food production equivalent to the needs of 100 million people. Photo: Legnan Koula/Shutterstock.

Christina Ribeiro do Valle, who comes from a long line of coffee growers in Brazil, is this year paying three times what she paid last year for the fertilizer she needs. Coupled with a recent drought that hit her crop hard, it means Ms. do Valle, 75, will produce a fraction of her Ribeiro do Valle brand of coffee, some of which is exported.

There is also a shortage of fertilizer. “This year, you pay, then put your name on a waiting list, and the supplier delivers it when he has it,” she said.

The coffee beans won’t develop as they should for lack of fertilizer, she said—not just this year but also in 2023. “It’s like a child that’s malnourished,” she said.

*Farmers in the U.S. are also feeling the pinch,*⁴ with some shifting their planting plans. But the impact is expected to be worse in developing countries where smallholders have limited access to bank loans and can’t pay up front for expensive fertilizer.

Fertilizer demand in sub-Saharan Africa could fall 30% in 2022, according to the International Fertilizer Development Center, a global nonprofit organization. That would translate to 30 million metric tons less food produced, which the center says is equivalent to the food needs of 100 million people.



A child holding a plate of food at a subsidized food center in India this month. Photo: Pradeep Gaur/Zuma Press.

⁴<https://www.wsj.com/articles/surging-fertilizer-costs-push-farmers-to-shift-planting-plans-raise-prices-11639580768>.



Global food prices rose to decade highs last year. A customer shopping at a London supermarket earlier this month. Photo: Daniel Leal/Agence France-Presse/Getty Images.

“Lower fertilizer use will inevitably weigh on food production and quality, affecting food availability, rural incomes and the livelihoods of the poor,” said Josef Schmidhuber, deputy director of the United Nations Food and Agriculture Organization’s trade and markets division.

As the pandemic enters year 3, more households are having to cut down on the quantity and quality of food they consume, the World Bank said in a note last month, noting that high fertilizer prices were adding to costs. Around 2.4 billion people lacked access to adequate food in 2020, up 320 million from the year before, it said. Inflation rose in about 80% of emerging-market economies last year, with roughly a third seeing double-digit food inflation, according to the World Bank.

Diammonium phosphate, or DAP, a commonly used phosphate fertilizer, cost \$745 per metric ton in December—more than double its 2020 average price. December prices for Eastern European urea, a widely exported nitrogen fertilizer, were nearly four times the 2020 average.

The price-increases stem partly from global energy costs, with the average natural-gas price in Europe for the October–December quarter ten times as much as that for the year of 2020, according to World Bank data. Nitrogen production facilities rely heavily on natural gas to convert chemical raw materials into finished products, so rises in the natural-gas price often flow through into fertilizer costs. Major fertilizer producers including China, Turkey, Egypt and Russia also curbed exports in the second half of 2021, further pushing up global prices.

A more recent factor is European Union and U.S. sanctions on Belarus, a major exporter of potash, which is a key ingredient of mineral fertilizers. Norway-based *Yara International ASA*,⁵ one of the world’s largest fertilizer makers, said this month it would wind down its sourcing of Belarusian potash by April.

“Belarus represents 20% of the global production of potash so clearly they are a significant supplier,” said Chief Executive Svein Tore Holsether in an interview. “If that part doesn’t make it out of Belarus then I don’t see anyone ready to turn up the volumes,” he said.

⁵ <https://www.wsj.com/market-data/quotes/YARIY>.



The trucking industry has long been dealing with a shortage of drivers and high job turnover, but supply-chain bottlenecks have underscored the need for new recruits. Here's how some companies are trying to get them behind the wheel. Photo: Robyn Beck/AFP via Getty Images (Originally published in November).

Editor's note: video retained in Committee file.

Tony Will, chief executive of CF Industries Holdings Inc., a leading nitrogen fertilizer manufacturer based in Deerfield, Ill., said he expected lower fertilization levels this year to result in reduced agricultural yields. The company has only re-opened one of the two UK plants it closed in September, citing high natural-gas prices and low availability of truck drivers. Plants in North America, where gas prices are lower, are running at maximum capacity, Mr. Will said.

Industry experts say European production is likely to be constrained as long as natural-gas prices remain high there, with shortages in parts of the developing world amplified by trade restrictions in other major fertilizer exporters.

On Indonesia's Sumatra island, coconut grower Burhanuddin Rafik is seeking out alternatives to fertilizer. He says farmers in his area have resorted to using monosodium glutamate, or MSG, a flavor enhancer that contains high levels of nitrogen and is used in local dishes. He and others are also trying organic methods, like spreading ash and plant debris on their crops.

"When I tell them the price of seeds is \$3 per kilogram, they start to cry."

FAUSTIN LOHOURI BI TRA, who grows corn, rice and soy seeds for other farmers in Ivory Coast

Faustin Lohouri Bi Tra, who grows corn, rice and soy seeds for other farmers on a 500 acre plantation in Ivory Coast, said if fertilizer prices remain high into April, he might have to slash his own planting by half or more. He can only raise prices so much before his seeds become too expensive for local farmers. "When I tell them the price of seeds is \$3 per kilogram, they start to cry," he said.

In an oven-hot, largely flat corner of southern Colombia, Marcos Baquero, 48, said high fertilizer costs were prompting him to try to figure out how to coax a bigger yield from his small farm.

"Farmers need to produce 50% more than they produced before," said Mr. Baquero, though he said he believed that many would simply give up on farming.

While he usually gets 35 tons of watermelon a hectare, he now wants to see if he can produce 40 tons. As for corn, he would like to increase the yield from the 6 tons to 10 tons he now produces to as much as 20 tons a hectare.

"This is very painful for us farmers," he said, "and it's getting very difficult to work."



A worker using a motorized harvesting sickle to cut a fruit bunch from an oil palm at a plantation in Malaysia earlier this month. Photo: Samsul Said/*Bloomberg News*.

JEFFREY T. LEWIS in São Paulo contributed to this article.

ARTICLE 3

THE WALL STREET JOURNAL.

[<https://www.wsj.com/articles/poor-planting-weather-puts-squeeze-on-u-s-farmers-11652290167>]

Farmers Are Racing Against Poor Weather to Plant Crops

Delays in getting crops started could cut into harvests amid already high grain prices



A farmer at work last month in Heyworth, Ill. The planting of corn, soybeans and wheat are well behind their usual pace. Photo: Alan Look/Zuma Press.

By PATRICK THOMAS,¹ and KIRK MALTAIS²
May 11, 2022 1:29 p.m. ET

Farmers are in a race against the clock to get their crops in the ground this week, with planting of corn, soybeans and wheat well behind their usual pace.

Wet and cool temperatures in key parts of the Midwest have delayed farmers' planting plans, leaving them days to get crops in the ground before they start to lose out on a bigger harvest. If they don't, some grain traders say that already high prices for agricultural commodities could rise even more, with supplies thinning as farmers world-wide grapple with tough weather.

On Monday, the U.S. Department of Agriculture said 22% of corn was planted, compared with 50% for the previous 5 year average. For soybeans, 12% was planted, compared with the previous 5 year average of 24%, and 27% of spring wheat was in the ground compared with a typical 47%, according to the USDA.

For corn the situation is particularly tenuous because corn planted after this week runs an increased risk of yielding less, agronomists say. With global grain markets already tight due to poor weather in *key growing areas*³ and Russia's war in Ukraine, further disruptions to U.S. crops could push crop prices beyond current *near-record levels*,⁴ they said.

Jeff Ryan, a corn and soybean farmer in Cresco, Iowa, said under 10% of his crop is planted, and more rain Monday night further delayed his progress. In a typical year, he said, he finishes planting by May 10, but windy and overcast weather conditions this spring have left his soil too wet. With rain expected later this week, Mr. Ryan said he expects his yields to fall by between 10% and 20% if the weather doesn't improve.

"It's not looking real promising," Mr. Ryan said, adding that it will take him about 10 days to plant. "It all depends on the weather. If it's just rainy enough and overcast, there's not much you can do."

Corn crops usually produce less grain when planted in middle to late May, said Jeffrey Coulter, a University of Minnesota Extension corn agronomist, who advises

¹ <https://www.wsj.com/news/author/patrick-thomas>.

² <https://www.wsj.com/news/author/kirk-maltais>.

³ <https://www.wsj.com/articles/ukraine-war-wheat-shortfalls-high-prices-11651503940>.

⁴ <https://www.wsj.com/articles/corn-and-soybeans-near-record-prices-push-food-costs-higher-11651092056>.

regional farmers. When corn is planted after May 12, yields start to slip, but can stay high until around May 20, he said.

Some corn-producing states—such as Illinois, Indiana, Minnesota and North Dakota—have seen above-average precipitation over the past 3 months, according to data from the U.S. National Oceanic and Atmospheric Administration. Wet soils in Corn Belt states have prevented farmers from getting their machinery into their fields.

Sean Elliot, a sixth-generation farmer in Iroquois County, Ill., planted his crop until midnight on Monday and got back out to the fields at 5:30 a.m. the next day to resume planting. Some of his land is still wet, but with more rain expected this weekend, Mr. Elliot said he is racing to get as much corn and soybean planted as he can this week. He has a drainage system installed that will help dry out his soil, but his neighbors that don't will probably lose out on some of their yields, he said.

"We're pushing as hard as we can," he said.

Farmers faced a *similar situation*⁵ in 2019, when record rainfall delayed planting and many either planted diminished crops or made insurance claims for unplanted acres. Corn production declined by about 5% that year, according to the USDA.

Further west, drought conditions are lingering in parts of major grain-producing states like Kansas and Nebraska, where dry soils make it difficult for farmers to successfully plant seeds.

Over 68% of the winter-wheat crop in the U.S. is in a severe drought, while spring-wheat states are stuck with excessive moisture, said Chandler Goule, chief executive of the National Association of Wheat Growers. In Minnesota, one of the largest spring-wheat growing states, 2% of the spring wheat is planted compared with 93% last year.

"The lack of moisture in the winter wheat and excessive moisture in the spring will affect yields and quality if we don't see an immediate change in the weather," he said.

Seed and pesticide maker *Corteva*⁶ Inc. said the planting delays cut into some of the company's first-quarter seed sales. While Corteva ships seeds to local sales representatives, it doesn't recognize revenue until after the seeds make it to the farmer. Challenging weather conditions that began at the end of March pushed back purchases, the company said.

A tight crop supply globally has boosted grains prices. Year-to-date, corn futures are up 31% while soybeans have risen 19% and wheat has increased nearly 42%. The USDA on Thursday is expected to release its monthly world supply-and-demand report. If the report shows demand for grains in the coming year rising as inventories and new U.S. production shrinks, futures may rise further, according to analysts.

Chuck Read, a fifth-generation farmer in Princeton, Ill., said he thinks he can get his 1,150 acres of corn and soybeans planted by the end of the week if the weather holds. "It's important we have a good crop for food prices," he said. "We need to have a good crop especially with what's happening in Ukraine."

Appeared in the May 12, 2022, print edition as 'Poor Weather Delays Midwest Crop Planting'.

SUBMITTED REPORT BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA



CONGRESSIONAL BUDGET OFFICE

Baseline Projections

May 2022

The Commodity Credit Corporation (CCC) accounts for a significant portion of mandatory Federal spending for agriculture through a wide range of programs shown in the general summary tables. CCC provides commodity price and income supports mainly through four programs:

- The **Price Loss Coverage** program makes payments to producers when the annual average market price per unit of a covered commodity falls below the reference price set in law. Beginning with the 2019 crop year, the Price Loss Coverage program makes payments when the annual average market price per

⁵ <https://www.wsj.com/articles/farmers-on-drenched-land-confront-tough-choice-on-planting-11559727000>.

⁶ <https://www.wsj.com/market-data/quotes/CTVA>.

unit of a covered commodity falls below the effective reference price, as defined in the 2018 Farm Bill (Public Law 115–334, the Agriculture Improvement Act of 2018).

- The **Agriculture Risk Coverage-County** program makes payments to producers when the actual average revenue for a crop (price times production) within the producer’s county falls below the local guaranteed amount, which is based on an average for recent years.
- The **Marketing Loan** program makes short-term loans to farmers at specified commodity loan rates using current production as collateral. Non-recourse loans may be repaid at less than principle plus interest if the market price estimated by the Department of Agriculture drops below the loan rate. The commodity also may be forfeited to CCC *in lieu of* loan repayment. Once a loan is repaid, producers are free to sell their crops.
- The **Dairy Support** program makes payments to producers to account for the difference between the monthly milk price and the cost of feed. Participants may choose the size of the margin they wish to cover and may be required to pay a premium to the government for such protection.

Participants in the Price Loss Coverage Program and in the Agriculture Risk Coverage program may receive payments from only one such program in any given year. The loan program is available to qualified producers in any year. The dairy supports program operates continuously.

Crop Insurance

Through the Federal Crop Insurance Corporation, producers may purchase insurance against major losses in yield or revenues for their crops. On average, the Federal Government pays 60 percent of a producer’s insurance premiums. The government also reimburses private-sector insurance companies for administrative expenses and underwriting gains (a company’s share of total gains and losses for insurance policies).

Conservation Programs

The Federal Government has programs to encourage producers to take fragile land out of production or to make improvements that promote land conservation by preventing erosion or improving productivity, for example.

Disaster Assistance

The Federal Government offers producers assistance when natural disasters reduce feed available for livestock, cause above-average death rates among livestock, or damage trees.

Commodity Background Tables

Total costs of commodity programs are derived from estimates for individual eligible commodities. Critical factors used to estimate program costs depend on projections of the price, yield, and program acres for each commodity. Historically, prices for a given commodity have been related to, among other things, the ratio of ending stocks to total use. A relatively high ratio implies an excess supply, which usually is associated with a lower price. Estimating prices according to historical relationships helps to keep price projections consistent with other market variables.

To help the agency consider changes to its baseline estimates, CBO convenes a meeting of agricultural economists each fall to discuss supply, demand, and price forecasts for major agricultural commodities like corn, soybeans, wheat, and cotton. In addition, crop insurance analysts are invited to review past performance of the crop insurance program and to discuss program changes. Attendees include economists from the Department of Agriculture’s Office of the Chief Economist, World Agricultural Outlook Board, Economic Research Service, Farm Service Agency, Foreign Agricultural Service, and Risk Management Agency, as well as agricultural economists from various universities and private enterprises.

CBO’s May 2022 Baseline for Farm Programs

Adjusted for Sequestration from FY 2021 to FY 2031

Abbreviations Used in Farm Programs Baseline Tables

ARC	Agriculture Risk Coverage
AWP	Adjusted World Price
CCC	Commodity Credit Corporation
CO	County Coverage

Abbreviations Used in Farm Programs Baseline Tables—Continued

CRP	Conservation Reserve Program
ELS	Extra-Long Staple Cotton
FCIC	Federal Crop Insurance Corporation
FSI	Food, Seed, and Industrial
FY	Fiscal Year
IC	Individual Coverage
MLG	Marketing Loan Gain
NRCS	Natural Resources Conservation Service
OMB	Office of Management and Budget
PLC	Price Loss Coverage
USDA	U.S. Department of Agriculture

Components may not sum to totals because of rounding.
 In some cases, 2021 spending is indicated as estimated because actual spending by program component is incomplete.

Congressional Budget Office
 May 2022

On May 27, 2020, CBO reposted this table to correct a typographical error on page 9.

List of Tables

Commodity Credit Corporation Account Plus Other Accounts Comparable to the USDA Baseline (Summary)	Federal Crop Insurance Corporation CCC Conservation Programs (Summary) CCC Conservation Programs (Details)
Commodity Credit Corporation Account Plus Other Accounts Comparable to the USDA Baseline (Details)	Sorghum Supply and Use Barley Supply and Use Oats Supply and Use
Program Payment Summary	Minor Feed Grain Program Outlays
Corn Supply and Use	Sunflower Seed Supply and Use
Corn Program Outlays	Canola Supply and Use
Soybean Supply and Use	Flaxseed Supply and Use
Soybean Program Outlays	Safflower Supply and Use
Wheat Supply and Use	Mustard Seed Supply and Use
Wheat Program Outlays	Rapeseed (Inedible) Supply and Use
Upland Cotton Supply and Use	Minor Oilseed Program Outlays
Upland Cotton Program Outlays	ELS Cotton Supply and Use
Rice Supply and Use	ELS Cotton Program Outlays
Rice Program Outlays	Dry Field Pea Supply and Use
Peanut Supply and Use	Lentil Supply and Use
Peanut Program Outlays	Large Chickpea Supply and Use
Dairy Program	Small Chickpea Supply and Use
Supplemental Agricultural Disaster Assistance Program	Pulse Crop Outlays

Commodity Credit Corporation Account Plus Other Accounts Comparable to the USDA Baseline (Summary)
 Millions of Dollars, by Fiscal Year

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Estimated	Projected									
Commodity Credit Corporation Price Support and Related Programs ^a	9,515	5,099	4,229	3,612	5,251	7,664	9,339	9,964	9,137	7,617	7,090	7,189
CCC Conservation Programs ^b	2,090	1,844	2,132	2,269	2,285	2,406	2,431	2,408	2,411	2,429	2,433	2,489
CCC Total^c	11,605	6,943	6,361	5,881	7,536	10,070	11,770	12,372	11,548	10,046	9,523	9,678
NRCS Conservation Programs ^d	3,190	3,187	3,238	3,174	3,413	3,532	3,661	3,680	3,682	3,672	3,674	3,797
Conservation Program Total^e	5,280	5,031	5,370	5,443	5,698	5,938	6,092	6,088	6,093	6,101	6,107	6,286

^aThis is the account for Commodity Credit Corporation price support programs in budget function 350 (agriculture). It includes those activities listed on the following page.
 It does not include conservation programs. CRP and several conservation programs were added to CCC in 1996, but remain under budget function 300 (natural resources and environment).
^bThese amounts reflect projected direct spending for conservation programs shown by OMB under the CCC account total.
^cThis total is consistent with categories included in USDA's CCC total for budget functions 350 and 300; includes some minor loan program accounts.

Program Payment Summary—Continued
Millions of Dollars, by Fiscal Year

Program and Crop	Fiscal Year												Total	
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032		2022-32
	Actual	Projected												
Total Feed Grains	1,394	49	36	38	1,159	2,526	3,019	2,955	1,570	1,279	1,372	1,581	15,585	
Soybeans	0	0	0	0	24	111	136	147	69	63	49	37	635	
Wheat	1,686	856	0	2	8	429	653	647	694	705	707	733	5,494	
Seed Cotton	980	472	0	0	303	433	428	441	433	466	484	482	3,942	
Rice	384	274	201	156	362	421	452	462	506	488	469	451	4,241	
Peanuts	405	384	226	202	202	283	305	301	296	293	294	294	3,081	
Other Oilseeds	107	34	0	5	36	73	80	86	57	57	61	61	549	
Dry Peas	8	7	0	0	0	0	0	0	0	0	0	0	7	
Lentils	16	11	15	19	22	0	0	0	0	3	17	7	94	
Small Chickpeas	1	0	0	0	0	0	0	0	0	0	0	0	0	
Large Chickpeas	5	1	1	1	1	1	1	1	1	1	1	0	10	
Total Price Loss Coverage	4,987	2,088	480	422	2,116	4,277	5,074	5,040	3,626	3,354	3,455	3,707	33,638	
Agriculture Risk Coverage—County														
Corn	291	28	0	0	28	332	942	1,393	1,902	910	499	403	6,436	
Sorghum	7	1	0	0	20	43	49	53	38	17	11	9	243	
Barley	2	2	12	3	7	6	7	8	11	10	9	11	86	
Oats	3	1	0	0	0	1	3	4	6	4	3	3	25	
Total Feed Grains	303	31	12	3	55	383	1,001	1,458	1,957	941	522	426	6,790	
Soybeans	608	3	0	4	39	129	401	551	614	424	308	285	2,758	
Wheat	56	23	18	9	102	187	199	197	110	86	79	119	1,197	
Seed Cotton	6	4	3	0	7	19	29	41	43	29	25	21	220	
Rice	0	0	2	3	9	10	11	11	9	7	7	7	75	
Peanuts	0	0	0	0	0	0	0	0	0	0	0	0	1	
Other Oilseeds	2	0	1	2	2	8	14	15	27	19	14	13	115	
Dry Peas	0	0	9	10	7	7	7	6	6	5	5	5	67	
Lentils	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small Chickpeas	0	0	0	0	0	0	0	0	0	0	0	0	0	
Large Chickpeas	0	0	0	0	0	4	5	5	4	3	3	5	29	
Total County Coverage	975	62	45	31	222	746	1,654	2,286	2,857	1,538	970	841	11,283	
Total Marketing Loan Benefits														
Corn	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sorghum	0	0	0	0	0	0	0	0	0	0	0	0	0	
Barley	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oats	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Feed Grains	0	0	0	0	0	0	0	0	0	0	0	0	0	
Soybeans	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wheat	0	0	0	0	0	0	0	0	0	0	0	0	0	
Upland Cotton	26	0	0	1	10	11	10	10	13	19	18	15	106	
Rice	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peanuts	0	0	4	4	9	10	10	10	9	9	9	8	82	
Other Oilseeds	0	0	0	0	0	0	0	0	0	0	0	0	1	
Wool	0	0	0	0	0	0	0	0	0	0	0	0	1	
Mohair	0	0	0	0	0	0	0	0	0	0	0	0	1	
Honey	0	0	0	0	0	0	0	0	0	0	0	0	1	
Dry Peas	0	3	3	0	0	2	2	2	1	1	0	0	13	
Lentils	2	1	0	0	0	0	0	0	0	0	0	0	1	
Small Chickpeas	6	6	6	7	0	0	0	0	6	2	1	28	28	
Large Chickpeas	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total Loan Benefits	33	10	13	13	19	23	22	21	23	35	29	25	233	
Total Payments*														
Corn	1,395	28	0	0	1,114	2,672	3,698	4,116	3,263	1,984	1,676	1,780	20,332	
Sorghum	241	6	0	6	43	137	205	190	150	117	102	115	1,073	
Barley	58	45	48	35	57	98	114	103	107	113	112	108	940	
Oats	3	1	0	0	0	1	3	5	7	5	4	4	30	
Total Feed Grains	1,697	80	48	41	1,214	2,909	4,020	4,414	3,527	2,219	1,894	2,007	22,375	
Soybeans	608	3	0	4	62	241	537	697	683	487	357	322	3,393	
Wheat	1,742	879	18	11	110	616	840	846	891	815	793	872	6,691	
Upland Cotton	1,012	476	3	1	320	463	467	492	489	514	527	518	4,269	
Rice	385	274	204	159	371	430	462	473	514	495	475	458	4,316	
Peanuts	406	384	230	206	211	293	315	311	305	303	304	302	3,165	
Other Oilseeds	109	35	1	6	38	81	94	101	84	76	75	74	665	
Wool	0	0	0	0	0	0	0	0	0	0	0	0	1	
Mohair	0	0	0	0	0	0	0	0	0	0	0	0	1	
Honey	0	0	0	0	0	0	0	0	0	0	0	0	1	
Dry Peas	8	10	12	10	7	9	9	8	7	5	5	5	87	
Lentils	18	12	15	19	22	0	0	0	0	3	17	7	95	
Small Chickpeas	7	6	6	7	0	0	0	0	6	2	1	28	28	
Large Chickpeas	5	1	1	1	1	5	6	6	5	4	4	5	40	
Total Payments Listed	5,996	2,160	538	465	2,357	5,046	6,750	7,348	6,505	4,927	4,454	4,573	45,124	
Other Payments (Not included above)														
Agriculture Risk Coverage—IC	318	25	17	25	38	55	73	91	94	78	65	62	624	
Cotton Ginning Cost-Share Payments	5	—	—	—	—	—	—	—	—	—	—	—	—	
Assistance to Cotton Users	33	36	37	37	38	39	39	39	39	39	39	39	419	
ELS Cotton Competitiveness Payments	4	0	1	1	3	3	3	3	3	3	3	3	26	
Dairy Margin Coverage	792	387	878	536	366	316	286	302	257	225	178	193	3,924	
Dairy Premiums and Administrative Fees	-42	-61	-72	-69	-67	-67	-67	-67	-67	-67	-66	-66	-735	
Milk Donation Program	5	5	5	5	5	5	5	5	5	5	5	5	65	
Livestock Disaster Payments	663	1,907	845	813	793	781	789	789	789	789	789	789	9,876	
Total Other Payments	1,778	2,298	1,711	1,349	1,176	1,132	1,129	1,162	1,120	1,072	1,013	1,025	14,188	

Soybean Program Outlays—Continued

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
CCC Storage and Handling	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	42	42	42	42	42	42	42	42	42	42	42	42
Direct Cash Payments												
Loan Deficiency Payments	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	0	0	0	0	24	111	136	147	69	63	49	37
County Agriculture Risk Coverage	608	3	0	4	39	129	401	551	614	424	308	285
Subtotal	608	3	0	4	62	241	537	697	683	487	357	322
Other Costs												
Purchases	0	0	0	0	0	0	0	0	0	0	0	0
Sales	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Total Outlays	608	3	0	4	62	241	537	697	683	487	357	322

Source: Congressional Budget Office.

Wheat Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	87.2	82.0	65.0	13.0	59.0	67.0	67.0	72.0	77.0	77.0	79.0	79.0	82.0
ARC-CO	10.8	16.0	33.0	85.0	39.0	31.0	31.0	26.0	21.0	21.0	19.0	19.0	16.0
ARC-IC	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Acreage	Millions of Acres												
Base Acres	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
Planted	44.5	46.7	47.5	47.0	46.0	46.0	46.0	46.0	46.0	46.0	45.0	45.0	45.0
Harvested	36.8	37.2	40.1	39.7	38.8	38.8	38.8	38.8	38.8	38.8	38.0	38.0	38.0
Yield	Bushels per Acre												
Harvested Yield	49.7	44.3	48.5	49.0	49.4	49.8	50.2	50.6	51.0	51.4	51.8	52.2	52.6
Planted Yield	41.1	35.2	40.9	41.4	41.6	42.0	42.4	42.7	43.0	43.3	43.8	44.1	44.4
Payment Yield—PLC	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Supply	Millions of Bushels												
Beginning Stocks	1,028	845	678	788	798	791	793	808	812	829	861	841	900
Production	1,828	1,646	1,945	1,944	1,915	1,934	1,950	1,964	1,980	1,994	1,969	1,985	2,095
Imports	100	95	105	105	120	120	120	120	120	120	120	120	120
Total Supply	2,956	2,586	2,728	2,837	2,833	2,845	2,863	2,892	2,912	2,943	2,950	2,946	2,982
Use													
Food	961	959	962	962	965	965	968	968	971	971	973	973	1,004
Seed and Industrial	64	64	63	62	62	62	62	62	62	61	61	61	64
Feed and Residual	95	100	90	90	90	100	100	100	100	100	100	100	120
Domestic Use	1,120	1,123	1,115	1,114	1,117	1,127	1,130	1,130	1,133	1,132	1,134	1,134	1,133
Exports	992	785	825	925	925	925	925	950	950	950	950	950	1,025
Total Use	2,112	1,908	1,940	2,039	2,042	2,052	2,055	2,080	2,083	2,082	2,084	2,084	2,083
Ending Stocks	844	678	788	798	791	793	808	812	829	861	866	862	899
Stocks/Use (Percent)	40.0	35.5	40.6	39.1	38.7	38.6	39.3	39.0	39.8	41.4	41.6	41.4	43.2
Prices	Dollars per Bushel												
Marketing-Year Average	5.05	7.60	7.65	6.35	5.40	5.25	5.25	5.20	5.20	5.20	5.15	5.15	5.10
Loan Rate	2.94	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
Reference Price	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Wheat/Corn Price Ratio	1.1	1.3	1.3	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.3

The marketing year for wheat runs from June 1 of the year shown to May 31 of the following year.

Source: Congressional Budget Office.

Wheat Program Outlays

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
Loan Activity	Millions of Bushels											
Outstanding Beginning Loan Stocks	34	10	10	10	10	10	10	10	10	10	10	10
Loans Made	26	136	134	135	137	137	139	140	138	139	140	141
Repayments	50	136	134	135	137	137	139	140	138	139	140	141
Transfers, Writeoffs	0	0	0	0	0	0	0	0	0	0	0	0
Forfeitures	0	0	0	0	0	0	0	0	0	0	0	0
Outstanding Ending Loan Stocks	10	10	10	10	10	10	10	10	10	10	10	10
Net Lending	Millions of Dollars											

Upland Cotton Program Outlays—Continued

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
Forfeitures	0.002	0	0	0	0	0	0	0	0	0	0	0
Ending Loans Outstanding	0.264	0.260	0.169	0.314	0.314	0.314	0.314	0.263	0.258	0.258	0.258	0.178
Net Lending	Millions of Dollars											
Loans Made	2,166	2,256	2,368	2,329	2,328	2,363	2,389	2,415	2,432	2,449	2,466	2,403
Loans Repaid	2,121	2,184	2,239	2,246	2,245	2,315	2,353	2,367	2,383	2,400	2,436	2,432
Net Loans (Including MLG)	46	72	129	83	83	48	36	48	49	49	30	0
Marketing Loan Gains	19	0	0	0	4	4	4	3	5	8	7	6
CCC Storage, Transportation, Handling	5	0	0	1	5	6	5	5	6	8	7	6
Subtotal	71	0	129	83	88	9	41	52	55	57	38	6
Direct Cash Payments	Millions of Dollars											
Price Loss Coverage	980	472	0	0	303	433	428	441	433	466	484	482
Agriculture Risk Coverage	6	4	3	0	7	19	29	41	43	29	25	21
Loan Deficiency Payments	2	0	0	0	2	2	2	1	2	3	3	3
Cotton Ginning Cost-Share	5	—	—	—	—	—	—	—	—	—	—	—
Economic Assistance to Mills	33	36	37	37	38	39	39	39	39	39	39	39
Subtotal	1,026	512	40	38	350	492	497	523	517	537	551	545
Other Costs and Receipts	Millions of Dollars											
Purchases	0	0	0	0	0	0	0	0	0	0	0	0
Sales	0	0	0	0	0	0	0	0	0	0	0	0
Other (Loan collateral, etc.)	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Total Outlays	1,097	512	169	121	437	502	537	575	572	594	589	551

Source: Congressional Budget Office.

Rice Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage	Millions of Acres												
Base Acres (All rice)	4,603	4,314	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606
Planted Acres	3,036	2,532	2,452	2,800	2,735	2,730	2,730	2,730	2,735	2,735	2,740	2,750	2,750
Harvested Acres	2,986	2,488	2,408	2,750	2,686	2,681	2,681	2,681	2,686	2,686	2,691	2,701	2,701
Yield	Pounds per Acre												
Yield per Harvested Acre	7,619	7,709	7,748	7,786	7,825	7,864	7,904	7,943	7,983	8,023	8,063	8,103	8,144
Yield per Planted Acre	7,494	7,575	7,608	7,646	7,884	7,723	7,761	7,800	7,839	7,878	7,918	7,954	8,070
Payment Yield—PLC	6,372	6,322	6,371	6,371	6,371	6,371	6,371	6,371	6,371	6,371	6,371	6,371	6,371
Supply	Millions of Hundredweight												
Beginning Stocks	28.7	43.7	34.5	29.0	37.8	40.1	41.4	42.1	42.2	42.0	41.6	41.3	43.6
Production	227.5	191.8	186.6	214.1	210.2	210.8	211.9	212.9	214.4	215.5	216.9	219.8	221.9
Imports	34.1	30.5	37.5	37.5	37.7	37.9	38.1	38.3	38.4	38.6	38.8	40.0	41.2
Total Supply	290.3	266.0	258.5	280.6	285.7	288.8	291.4	293.3	295.0	296.1	297.4	301.2	306.7
Use	Millions of Hundredweight												
Domestic	152.7	145.5	144.5	153.8	154.6	155.5	156.4	157.4	158.3	159.3	160.2	161.2	162.1
Exports	93.9	86.0	85.0	89.0	91.0	91.9	92.8	93.8	94.7	95.3	95.8	96.4	97.0
Total Use	246.6	231.5	229.5	242.8	245.6	247.4	249.3	251.1	253.0	254.5	256.1	257.6	259.1
Ending Stocks	43.7	34.5	29.0	37.8	40.1	41.4	42.1	42.2	42.0	41.6	41.3	43.6	47.6
Stocks/Use (Percent)	17.7	14.9	12.6	15.6	16.3	16.7	16.9	16.8	16.6	16.3	16.1	16.9	18.4
Prices	Dollars per Hundredweight												
Marketing-Year Average	14.40	15.70	15.93	13.94	13.54	13.34	13.27	13.31	13.40	13.53	13.64	13.63	13.68
Adjusted World Price	11.23	12.14	14.33	10.90	10.63	10.49	10.44	10.47	10.53	10.62	10.69	10.69	10.72
Loan Rate	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Reference Price (Long/medium grain)	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Reference Price (Japonica)	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.30

The marketing year for rice runs from August 1 of the year shown to July 31 of the following year.

Source: Congressional Budget Office.

Rice Program Outlays

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
Loan Activity	Millions of Hundredweight											
Beginning Loans Outstanding	6	10	10	13	16	19	22	25	26	27	27	27
Loans Made	42	38	47	43	42	42	40	38	35	33	33	34
Loan Repayments	39	38	43	40	39	39	38	36	34	33	33	34
Transfers, Writeoffs	0	0	0	0	0	0	0	0	0	0	0	0
Forfeitures	0	0	0	0	0	0	0	0	0	0	0	0
Ending Loans Outstanding	10	10	13	16	19	22	25	26	27	27	27	27
Net Lending	Millions of Dollars											

Rice Program Outlays—Continued

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Actual	Projected											
Loans Made	295	266	326	300	297	294	278	263	246	233	234	237	
Loans Repaid	272	266	302	278	275	273	263	252	240	232	234	237	
Net Loans (Including MLG)	67	0	24	22	22	20	16	11	5	1	0	0	
Marketing Loan Gains	0	0	0	0	0	0	0	0	0	0	0	0	
CCC Storage, Transportation, Handling	0	0	0	0	0	0	0	0	0	0	0	0	
Subtotal	67	0	24	22	22	20	16	11	5	1	0	0	
Direct Cash Payments													
Loan Deficiency Payments	0	0	0	0	0	0	0	0	0	0	0	0	
Price Loss Coverage	384	274	201	156	362	421	452	462	506	488	469	451	
Agriculture Risk Coverage—County	0	0	2	3	9	10	11	11	9	7	7	7	
Subtotal	385	274	204	159	371	430	462	473	514	495	475	458	
Other Costs and Receipts													
Purchases	0	0	0	0	0	0	0	0	0	0	0	0	
Other Sales	0	0	0	0	0	0	0	0	0	0	0	0	
Other (Loan collateral, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	
Total Outlays	385	274	204	159	371	430	462	473	514	495	475	458	

Source: Congressional Budget Office.

Peanut Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage	Thousands of Acres												
Base Acres	2,451	2,424	2,452	2,452	2,452	2,452	2,452	2,452	2,452	2,452	2,452	2,452	2,452
Planted Acres	1,663	1,585	1,571	1,650	1,600	1,611	1,622	1,634	1,645	1,657	1,668	1,680	1,692
Harvested Acres	1,615	1,545	1,532	1,609	1,560	1,571	1,582	1,593	1,604	1,615	1,627	1,638	1,650
Yield	Pounds per Acre												
Harvested Yield	3,813	4,135	4,000	4,028	4,056	4,085	4,113	4,142	4,171	4,200	4,230	4,259	4,289
Planted Yield	3,704	4,031	3,900	3,927	3,955	3,982	4,010	4,038	4,067	4,095	4,124	4,153	4,182
Payment Yield—PLC	3,566	3,569	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565
Supply	Millions of Pounds												
Beginning Stocks	2,116	1,965	2,339	2,298	2,478	2,477	2,480	2,489	2,504	2,524	2,550	2,582	2,620
Production	6,158	6,389	6,127	6,480	6,328	6,417	6,507	6,598	6,691	6,785	6,880	6,977	7,075
Imports	121	115	115	115	115	115	115	115	115	115	115	115	115
Total Supply	8,395	8,469	8,581	8,893	8,921	9,008	9,102	9,202	9,310	9,424	9,545	9,674	9,810
Use	Millions of Pounds												
Domestic Food	3,357	3,424	3,476	3,528	3,581	3,634	3,689	3,744	3,800	3,857	3,915	3,974	4,033
Crush	873	799	796	842	823	834	846	858	870	882	894	907	920
Seed, Loss, Shrinkage, Residual	783	658	752	777	765	774	784	793	803	813	823	833	843
Total Domestic Use	5,013	4,881	5,024	5,147	5,168	5,243	5,318	5,395	5,473	5,552	5,632	5,714	5,796
Exports	1,417	1,250	1,259	1,268	1,276	1,285	1,294	1,303	1,313	1,322	1,331	1,340	1,350
Total Use	6,430	6,131	6,283	6,415	6,444	6,528	6,613	6,699	6,786	6,874	6,963	7,054	7,146
Ending Stocks	1,965	2,339	2,298	2,478	2,477	2,480	2,489	2,504	2,524	2,550	2,582	2,620	2,664
Stocks/Use (Percent)	30.6	38.1	36.6	38.6	38.4	38.0	37.6	37.4	37.2	37.1	37.1	37.1	37.3
Prices	Dollars per Pound												
Marketing-Year Average	0.2100	0.2420	0.2475	0.2475	0.2320	0.2285	0.2292	0.2298	0.2302	0.2304	0.2304	0.2303	0.2300
Loan Rate	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775	0.1775
Reference Price	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675	0.2675

The marketing year for peanuts runs from August 1 of the year shown to July 31 of the following year.

Source: Congressional Budget Office.

Peanut Program Outlays

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Actual	Projected											
Loan Activity	Millions of Pounds												
Beginning Loans Outstanding	215	262	262	321	296	311	325	340	355	371	387	403	
Loans Made	4,902	4,902	5,184	5,062	5,133	5,205	5,278	5,353	5,428	5,504	5,581	5,660	
Loan Repayments	4,854	4,901	5,136	5,086	5,119	5,190	5,263	5,337	5,412	5,488	5,565	5,644	
Transfers, Writeoffs	0	0	0	0	0	0	0	0	0	0	0	0	
Forfeitures	0	0	0	0	0	0	0	0	0	0	0	0	
Ending Loans Outstanding	262	262	321	296	311	325	340	355	371	387	403	419	
Net Lending	Millions of Dollars												
Loans Made	888	872	920	899	912	924	937	950	964	977	991	974	
Loans Repaid	857	844	893	872	884	896	909	922	935	948	961	974	
Net Loans (Including MLG)	44	28	27	27	28	28	29	29	29	30	30	0	
Marketing Loan Gains	0	0	4	4	9	10	10	10	9	9	9	8	

Peanut Program Outlays—Continued

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
CCC Storage, Transportation, Handling	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	44	0	4	4	9	10	10	10	9	9	9	8
Direct Cash Payments												
Loan Deficiency Payments	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	405	384	226	202	202	283	305	301	296	293	294	294
Agriculture Risk Coverage—County	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	406	384	227	202	202	283	305	301	296	293	294	294
Other Costs and Receipts												
Purchases	0	0	0	0	0	0	0	0	0	0	0	0
Sales	0	0	0	0	0	0	0	0	0	0	0	0
Other (Loan collateral, etc.)	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Total Outlays	450	384	230	206	211	293	315	311	305	303	304	302

Source: Congressional Budget Office.

Dairy Program

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Estimated	Projected										
Herd Size (Million head)	9.475	9.456	9.437	9.428	9.436	9.448	9.459	9.470	9.482	9.493	9.504	9.516
Yield (Pounds/cow)	23,960	24,305	24,530	24,835	24,990	25,220	25,440	25,735	25,885	26,110	26,330	26,550
Production (Billion pounds, milkfat basis)	226	228	231	234	236	238	241	244	245	248	250	253
Prices (Annual average)	Dollars per Hundredweight											
All Milk Price	18.69	25.80	21.00	19.20	19.35	19.40	19.55	19.50	20.05	20.45	20.85	20.80
Milk Feed Cost	10.51	12.14	12.75	10.16	9.61	9.41	9.36	9.38	9.50	9.56	9.53	9.52
Milk/Feed Cost Margin	8.18	13.66	8.25	9.04	9.74	9.99	10.19	10.12	10.55	10.89	11.32	11.28
Outlays	Millions of Dollars											
Dairy Margin Coverage	792	387	878	536	366	316	286	302	257	225	178	193
Milk Donation Program	5	5	5	5	5	5	5	5	5	5	5	5
Total Outlays	797	392	883	541	371	321	291	307	262	230	183	198
Receipts												
Annual Administrative Fee	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Premiums for Margin Protection	-40	-59	-69	-67	-64	-64	-64	-64	-64	-64	-64	-64
Total Receipts	-42	-61	-72	-69	-67	-67	-67	-67	-67	-67	-66	-66
Net CCC Expenditures	755	331	811	472	304	254	225	240	195	164	117	132
Note:												
Premiums for <5 Million Pounds	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00	\$9.50
Premiums for >5 Million Pounds	\$—	\$0.003	\$0.005	\$0.030	\$0.050	\$0.070	\$0.080	\$0.090	\$0.100	\$0.105	\$0.110	\$0.150
	\$—	\$0.003	\$0.005	\$0.100	\$0.310	\$0.650	\$1.107	\$1.413	\$1.813	\$—	\$—	\$—

Source: Congressional Budget Office.

Supplemental Agricultural Disaster Assistance Program

	Fiscal Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
	Millions of Dollars											
Livestock Indemnity Payments												
Budget Authority	19	142	58	56	54	53	54	54	54	54	54	54
Outlays	18	142	58	56	54	53	54	54	54	54	54	54
Livestock Forage Disaster Program												
Budget Authority	592	1,537	621	591	573	562	569	569	569	569	569	569
Outlays	558	1,537	621	591	573	562	569	569	569	569	569	569
Emergency Assistance for Livestock, Honey Bees, and Farm-Raised Fish												
Budget Authority	81	217	156	156	156	156	156	156	156	156	156	156
Outlays	77	217	156	156	156	156	156	156	156	156	156	156
Tree Assistance Program												
Budget Authority	10	10	10	10	10	10	10	10	10	10	10	10
Outlays	10	10	10	10	10	10	10	10	10	10	10	10
Total												
Budget Authority	702	1,906	845	813	793	781	789	789	789	789	789	789
Outlays	663	1,906	845	813	793	781	789	789	789	789	789	789

Source: Congressional Budget Office.

Federal Crop Insurance Corporation

	Marketing Year											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
	Millions of Acres											
Insured Acres	445	445	446	445	444	444	443	443	443	442	442	442
	Millions of Dollars											
Producer Premium	5,103	4,598	3,945	3,763	3,725	3,712	3,734	3,774	3,808	3,809	3,813	3,802
Premium Subsidy	8,580	7,845	6,683	6,353	6,290	6,270	6,310	6,379	6,440	6,443	6,460	6,451
Total Liability	136,211	137,032	116,444	111,466	110,189	109,667	110,433	111,637	112,776	112,889	113,084	112,815
Total Premium	13,683	12,444	10,628	10,117	10,016	9,982	10,044	10,153	10,248	10,251	10,273	10,253
Total Indemnities	11,631	10,577	9,033	8,599	8,513	8,485	8,537	8,630	8,711	8,714	8,732	8,715
Loss Ratio	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Crop Year Costs												
Excess losses	-2,052	-1,867	-1,594	-1,517	-1,502	-1,497	-1,507	-1,523	-1,537	-1,538	-1,541	-1,538
Premium subsidy	8,580	7,845	6,683	6,353	6,290	6,270	6,310	6,379	6,440	6,443	6,460	6,451
Delivery expense	1,525	1,526	1,524	1,525	1,525	1,525	1,525	1,526	1,526	1,526	1,529	1,531
Underwriting gains	1,825	1,660	1,418	1,349	1,336	1,331	1,340	1,354	1,367	1,367	1,370	1,368
Other*	21	21	21	21	21	21	21	21	21	21	21	21
Total	9,900	9,186	8,052	7,732	7,670	7,650	7,689	7,758	7,817	7,819	7,839	7,833
	Fiscal Year											
FCIC Program Spending	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected										
		Millions of Dollars										
Total Crop Insurance Programs	9,900	9,186	8,052	7,732	7,670	7,650	7,689	7,758	7,817	7,819	7,840	7,832
Budget Authority	4,591	4,940	4,423	4,313	4,305	4,286	4,325	4,394	4,453	4,455	4,476	4,468
Outlays	4,591	4,940	4,423	4,313	4,305	4,286	4,325	4,394	4,453	4,455	4,476	4,468

* Includes net adjustments from new provisions in the 2018 Farm Bill.

Source: Congressional Budget Office.

CCC Conservation Programs (Summary)

	Fiscal Year												Total
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Actual	Projected											
	Millions of Dollars												
Commodity Credit Corporation Programs													
Budget Authority	2,080	1,844	2,132	2,269	2,285	2,406	2,431	2,408	2,411	2,429	2,433	2,489	25,538
Outlays	2,090	1,844	2,132	2,269	2,285	2,406	2,431	2,408	2,411	2,429	2,433	2,489	25,538
Farm Security and Rural Investment Programs													
Budget Authority	3,921	3,978	4,160	3,770	3,697	3,723	3,675	3,647	3,646	3,630	3,632	3,857	41,415
Outlays	3,150	3,143	3,187	3,119	3,361	3,483	3,616	3,636	3,640	3,630	3,632	3,755	38,202
Watershed Rehabilitation Program													
Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0
Outlays	26	15	15	15	9	1	0	0	0	0	0	0	55
Watershed and Flood Prevention Operations													
Budget Authority	47	47	47	47	47	47	47	47	47	47	47	50	520
Outlays	14	29	36	40	43	48	45	44	42	42	42	42	453
Total	6,048	5,869	6,340	6,086	6,029	6,176	6,153	6,102	6,104	6,107	6,112	6,395	67,473
Budget Authority	5,280	5,031	5,370	5,443	5,698	5,938	6,093	6,089	6,093	6,101	6,106	6,285	64,247
Outlays	5,280	5,031	5,370	5,443	5,698	5,938	6,093	6,089	6,093	6,101	6,106	6,285	64,247

Source: Congressional Budget Office.

CCC Conservation Programs (Details)

	Fiscal Year												Total	
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032		2022-32
	Actual	Projected												
Millions of Dollars														
Conservation Reserve Program														
Budget Authority	2,080	1,844	2,132	2,269	2,285	2,406	2,431	2,408	2,411	2,429	2,433	2,489	25,538	
Outlays	2,090	1,844	2,132	2,269	2,285	2,406	2,431	2,408	2,411	2,429	2,433	2,489	25,538	
CRP Technical Assistance														
Budget Authority	112	196	297	233	155	183	132	102	101	85	87	92	1,663	
Outlays	112	196	297	233	155	183	132	102	101	85	87	92	1,663	
Conservation Stewardship Program—2014														
Budget Authority	785	700	350	0	0	0	0	0	0	0	0	0	1,050	
Outlays	785	700	350	0	0	0	0	0	0	0	0	0	1,050	
Conservation Stewardship Program—2018														
Budget Authority	750	800	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,800	
Outlays	275	324	470	640	840	890	990	1,000	1,000	1,000	1,000	1,000	9,154	
Environmental Quality Incentives Program														
Budget Authority	1,800	1,850	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	22,100	
Outlays	1,519	1,632	1,708	1,803	1,863	1,889	1,985	2,025	2,025	2,025	2,025	2,025	21,007	
Agricultural Conservation Easement Program														
Budget Authority	450	450	450	450	450	450	450	450	450	450	450	450	4,950	
Outlays	312	340	375	410	450	450	450	450	450	450	450	450	4,725	
Regional Conservation Partnership Program														
Budget Authority	300	300	300	300	300	300	300	300	300	300	300	300	3,300	
Outlays	60	113	165	216	251	286	283	292	297	300	300	300	2,802	
Agricultural Management Assistance														
Budget Authority	5	5	5	5	5	5	5	5	5	5	5	5	55	
Outlays	4	5	5	5	5	5	5	5	5	5	5	5	55	
Voluntary Public Access and Habitat Incentive														
Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	
Outlays	8	10	10	10	2	0	0	0	0	0	0	0	32	
Watershed Rehabilitation Program														
Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	
Outlays	26	15	15	15	9	1	0	0	0	0	0	0	55	
Watershed and Flood Prevention Operations														
Budget Authority	50	50	50	50	50	50	50	50	50	50	50	50	550	
Outlays	14	30	38	42	45	50	48	47	45	45	45	45	480	
Other Programs*														
Budget Authority	-79	-75	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-295	
Outlays	75	-43	-17	-15	-15	-15	-15	-15	-15	-15	-15	-15	-195	
Announced Sequestration ^b														
Budget Authority	-205	-251	-254	-231	-226	-228	-225	-223	-222	-222	-223	0	-2,307	
Outlays	0	-134	-178	-185	-193	-207	-217	-227	-226	-223	-223	-105	-2,118	
Total														
Budget Authority	6,048	5,869	6,340	6,086	6,029	6,176	6,153	6,102	6,104	6,107	6,112	6,395	67,472	
Outlays	5,280	5,031	5,370	5,443	5,698	5,938	6,093	6,089	6,093	6,101	6,106	6,285	64,247	

* Includes spending on the Emergency Forestry Conservation Reserve Program, programs repealed by the 2014 Farm Bill, Grassroots Source Water Protection, Feral Swine Eradication, Conservation User Fees, and transfer of amounts to the Farm Production and Conservation Business Center.

^b 2021 actual outlays for individual programs are net of sequestration.

Source: Congressional Budget Office.

Sorghum Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation													
Percentage of Base Acres													
PLC	82.0	84.5	31.0	38.5	59.0	66.5	66.5	72.0	77.0	79.5	82.0	84.5	84.5
ARC-CO	17.8	15.3	68.8	61.3	40.8	33.3	33.3	27.8	22.8	20.3	17.8	15.3	15.3
ARC-IC	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Acreage													
Millions of Acres													
Base Acres	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Planted Acres	5.9	7.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1
Harvested Acres	5.1	6.5	5.5	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.4
Yield													
Bushels per Acre													
Per Harvested Acre	73.2	69.0	69.3	68.6	69.9	70.2	70.5	70.8	71.1	71.4	71.7	72.0	72.3
Per Planted Acre	63.2	61.4	61.6	61.5	61.9	61.9	62.4	62.6	62.9	63.0	63.1	64.1	63.9
Payment Yield—PLC	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
Supply													
Millions of Bushels													
Beginning Stocks	30	20	28	20	21	25	29	21	24	24	23	23	29
Production	373	448	382	381	384	384	387	388	390	384	385	391	390
Imports	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Supply	403	468	410	401	405	409	416	409	414	408	408	414	419
Use													
Feed and Residual	92	115	100	100	100	100	100	100	95	95	95	95	95
Food, Seed, Industrial	7	15	10	30	30	40	55	55	60	60	60	60	60
Domestic Use	99	130	110	130	130	140	155	155	160	155	155	155	155
Exports	284	310	280	250	250	240	240	230	230	230	230	230	230

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Sorghum Supply and Use—Continued

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Total Use	383	440	390	380	380	380	395	385	390	385	385	385	385
Ending Stocks	20	28	20	21	25	29	21	24	24	23	23	29	34
Stocks/Use (Percent)	5.2	6.4	5.1	5.5	6.6	7.6	5.3	6.2	6.2	6.0	6.0	7.5	8.8
Price	Dollars per Bushel												
Marketing-Year Average	5.04	5.85	6.00	4.40	4.05	3.85	3.75	3.75	3.85	3.90	3.85	3.80	3.70
Reference Price	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95
Loan Rate	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Sorghum/Corn Price Ratio	1.11	1.01	1.00	0.99	0.99	0.97	0.97	0.97	0.97	0.98	0.97	0.97	0.97

The marketing year for sorghum runs from September 1 of the year shown through August 31 of the subsequent year.
Source: Congressional Budget Office.

Barley Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	76.9	84.5	75.0	72.0	82.0	82.0	79.5	77.0	79.5	79.5	77.0	79.5	77.0
ARC-CO	19.6	12.0	21.5	24.5	14.5	14.5	17.0	19.5	17.0	17.0	19.5	17.0	19.5
ARC-IC	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Acreage	Millions of Acres												
Base Acres	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Planted Acres	2.7	2.7	2.9	2.8	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Harvested Acres	2.2	1.9	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Yield	Bushels per Acre												
Per Harvested Acre	77.2	60.4	75.0	75.6	76.2	76.8	77.4	78.0	78.6	79.2	79.8	80.4	81.0
Per Planted Acre	63.3	43.7	62.4	61.8	65.6	65.4	65.0	66.2	66.2	67.7	67.3	68.1	67.7
Payment Yield—PLC	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
Supply	Millions of Bushels												
Beginning Stocks	80	71	56	81	93	94	88	81	77	73	73	67	63
Production	171	118	181	173	177	170	169	172	172	176	175	177	176
Imports	7	11	9	9	9	9	9	9	9	9	9	9	9
Total Supply	258	200	246	263	279	273	266	262	258	258	257	253	248
Use	Millions of Bushels												
Feed and Residual	26	20	20	25	35	35	35	35	35	35	35	35	35
Food, Seed, Industrial	147	115	135	135	140	140	140	140	140	140	145	145	145
Domestic Use	172	135	155	160	175	175	175	175	175	175	180	180	180
Exports	14	9	10	10	10	10	10	10	10	10	10	10	10
Total Use	186	144	165	170	185	185	185	185	185	185	190	190	190
Ending Stocks	71	56	81	93	94	88	81	77	73	73	67	63	58
Stocks/Use (Percent)	38.2	39.0	49.2	54.8	50.9	47.6	43.8	41.7	39.5	39.5	35.3	33.2	30.6
Price	Dollars per Bushel												
Marketing-Year Average, All Barley	4.75	5.25	5.60	4.95	4.65	4.55	4.60	4.55	4.55	4.55	4.55	4.55	4.55
Marketing-Year Average, Feed Barley	3.45	3.81	4.07	3.59	3.38	3.30	3.34	3.30	3.30	3.30	3.30	3.30	3.30
Marketing-Year Average, Malting Barley	4.98	5.51	5.87	5.19	4.88	4.77	4.83	4.77	4.77	4.77	4.77	4.77	4.77
Reference Price	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95
Loan Rate	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Barley/Wheat Price Ratio	0.94	0.72	0.90	0.83	0.87	0.86	0.86	0.88	0.89	0.89	0.89	0.91	0.92

The marketing year for barley runs from June 1 of the year shown through May 31 of the subsequent year.
Source: Congressional Budget Office.

Oats Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	48.7	69.2	67.0	3.0	38.5	18.0	20.5	25.5	31.0	33.0	41.0	64.0	69.0
ARC-CO	50.6	30.1	32.3	96.3	60.8	81.3	78.8	73.8	68.3	66.3	58.3	35.3	30.3
ARC-IC	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Acreage	Millions of Acres												
Base Acres	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Planted Acres	3.0	2.6	2.5	2.6	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Harvested Acres	1.0	0.7	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yield	Bushels per Acre												

Oats Supply and Use—Continued

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Per Harvested Acre	65.1	61.3	65.0	65.3	65.6	65.9	66.2	66.5	66.8	67.1	67.4	67.7	68.0
Per Planted Acre	22.0	15.4	23.4	22.3	24.4	23.6	23.6	23.9	23.9	24.8	24.8	25.9	26.2
Payment Yield—PLC	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
Supply	Millions of Bushels												
Beginning Stocks	37	38	27	23	18	20	22	23	25	26	27	27	30
Production	66	40	59	58	66	66	66	67	67	67	70	70	71
Imports	85	77	90	90	90	90	90	90	90	90	90	90	90
Total Supply	188	155	176	171	174	176	178	180	182	183	184	187	191
Use	Millions of Bushels												
Feed and Residual	68	45	70	70	70	70	70	70	70	70	70	70	70
Food, Seed, Industrial	78	80	81	81	82	82	83	83	84	84	85	85	86
Domestic Use	147	125	151	151	152	152	153	153	154	154	155	155	156
Exports	3	3	2	2	2	2	2	2	2	2	2	2	2
Total Use	150	128	153	153	154	154	155	155	156	156	157	157	158
Ending Stocks	38	27	23	18	20	22	23	25	26	27	27	30	33
Stocks/Use (Percent)	25.3	21.1	15.0	11.8	13.0	14.3	14.8	16.1	16.7	17.3	17.2	19.1	20.9
Price	Dollars per Bushel												
Marketing-Year Average	2.77	4.30	4.20	3.80	3.50	3.40	3.30	3.25	3.25	3.20	3.20	3.10	3.00
Reference Price	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Loan Rate	1.39	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Oats/Corn Price Ratio	0.61	0.79	0.88	0.83	0.83	0.83	0.80	0.81	0.83	0.82	0.82	0.82	0.79

The marketing year for oats runs from June 1 of the year shown through May 31 of the subsequent year.
Source: Congressional Budget Office.

Minor Feed Grain Program Outlays

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Actual	Projected											
	Millions of Dollars												
Sorghum	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing Assistance Loan Benefits	234	0	0	6	23	94	156	137	112	100	91	106	
Price Loss Coverage	7	1	0	0	20	43	49	53	38	17	11	9	
Agriculture Risk Coverage													
Total Sorghum	241	1	0	6	43	137	205	190	150	117	102	115	
Barley	0	0	0	0	0	0	0	0	0	0	0	0	
Marketing Assistance Loan Benefits	56	43	36	32	50	92	107	95	96	103	103	97	
Price Loss Coverage	2	2	12	3	7	6	7	8	11	10	9	11	
Agriculture Risk Coverage													
Total Barley	58	45	48	35	57	98	114	103	107	113	112	108	
Oats	0	0	0	0	0	0	0	0	0	0	0	0	
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	1	1	1	1	1	
Price Loss Coverage	3	1	0	0	0	1	3	4	6	4	3	3	
Agriculture Risk Coverage													
Total Oats	3	1	0	0	0	1	3	5	7	5	4	4	
Total Minor Feed Grains	0	0	0	0	0	0	0	0	0	0	0	0	
Marketing Assistance Loan Benefits	290	43	36	38	73	186	263	233	209	204	195	204	
Price Loss Coverage	12	4	12	3	27	50	59	65	55	31	23	23	
Agriculture Risk Coverage													
Total Minor Feed Grains	302	47	48	41	100	237	323	298	264	235	218	227	

Source: Congressional Budget Office.

Sunflower Seed Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	90.8	73.6	55.0	82.5	77.5	70.0	70.0	57.5	62.5	67.5	67.5	67.5	65.0
ARC-CO	7.5	25.6	43.8	16.3	21.3	28.8	28.8	41.3	36.3	31.3	31.3	31.3	33.8
ARC-IC	1.7	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Acreage	Millions of Acres												
Base Acres	1.639	1.604	1.604	1.604	1.604	1.604	1.604	1.604	1.604	1.604	1.604	1.604	1.604
Planted Acres	1.719	1.289	1.470	1.450	1.412	1.407	1.387	1.382	1.377	1.372	1.367	1.367	1.367
Harvested Acres	1.666	1.244	1.403	1.384	1.348	1.343	1.324	1.319	1.314	1.310	1.305	1.305	1.305
Yield	Pounds per Acre												

Sunflower Seed Supply and Use—Continued

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Per Harvested Acre	1,790	1,530	1,745	1,761	1,778	1,790	1,807	1,824	1,837	1,853	1,866	1,882	1,817
Per Planted Acre	1,736	1,477	1,665	1,681	1,697	1,709	1,725	1,741	1,753	1,769	1,781	1,796	1,734
Payment Yield—PLC	1,447	1,433	1,433	1,433	1,433	1,433	1,433	1,433	1,433	1,433	1,433	1,433	1,433
Supply	Millions of Pounds												
Beginning Stocks	194	398	245	353	425	433	436	439	443	447	450	453	463
Production	2,983	1,903	2,448	2,437	2,396	2,404	2,392	2,406	2,414	2,427	2,435	2,456	2,371
Imports	376	360	351	352	353	359	370	381	392	403	414	425	425
Total Supply	3,553	2,661	3,044	3,142	3,175	3,196	3,198	3,226	3,249	3,277	3,299	3,333	3,259
Use	Millions of Pounds												
Crush	1,213	1,108	1,145	1,133	1,146	1,153	1,161	1,169	1,177	1,186	1,200	1,214	1,174
Non-Oil + Seed	1,812	1,178	1,416	1,454	1,469	1,483	1,477	1,496	1,510	1,529	1,537	1,550	1,550
Domestic Use	3,025	2,286	2,561	2,587	2,615	2,636	2,638	2,665	2,687	2,715	2,737	2,764	2,724
Exports	130	130	130	130	127	124	121	118	115	112	109	106	106
Total Use	3,155	2,416	2,691	2,717	2,742	2,760	2,759	2,783	2,802	2,827	2,846	2,870	2,830
Ending Stocks	398	245	353	425	433	436	439	443	447	450	453	463	429
Stocks/Use	12.6	10.1	13.1	15.7	15.8	15.8	15.9	15.9	16.0	15.9	15.9	16.1	15.2
Price	Dollars per Pound												
Marketing-Year Average	0.2130	0.3100	0.2829	0.2300	0.1998	0.1979	0.1979	0.1960	0.1979	0.1979	0.1979	0.1979	0.1979
Reference Price	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015
Loan Rate	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009

The marketing year for sunflowerseed runs from September 1 of the year shown through August 31 of the subsequent year.
Source: Congressional Budget Office.

Canola Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
ARC-CO	0.9	97.0	32.0	19.5	22.0	24.5	24.5	37.0	32.0	27.0	27.0	97.0	97.0
ARC-IC	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Acreage	Millions of Acres												
Base Acres	1,466	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448
Planted Acres	1,824	2,152	2,200	2,200	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Harvested Acres	1,788	2,089	2,123	2,123	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171
Yield	Pounds per Acre												
Per Harvested Acre	1,931	1,302	1,825	1,835	1,845	1,855	1,865	1,875	1,885	1,895	1,905	1,915	1,925
Per Planted Acre	1,893	1,264	1,761	1,771	1,780	1,790	1,800	1,809	1,819	1,829	1,838	1,848	1,858
Payment Yield—PLC	1,664	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668
Supply	Millions of Pounds												
Beginning Stocks	482	473	543	667	668	669	670	673	674	674	674	675	676
Production	3,453	2,721	3,874	3,896	4,006	4,028	4,049	4,071	4,093	4,115	4,136	4,158	4,180
Imports	979	882	1,157	1,157	1,157	1,100	1,045	992	992	992	992	992	993
Total Supply	4,914	4,076	5,574	5,720	5,831	5,796	5,765	5,736	5,759	5,780	5,802	5,825	5,849
Use	Millions of Pounds												
Crush	4,568	3,221	4,484	4,591	4,676	4,641	4,608	4,579	4,600	4,621	4,642	4,663	4,663
Non-Oil + Seed	-470	63	169	174	177	176	175	174	176	176	176	177	177
Domestic Consumption	4,098	3,284	4,653	4,765	4,853	4,817	4,783	4,753	4,776	4,797	4,818	4,840	4,840
Exports	343	249	254	287	309	309	309	309	309	309	309	309	309
Total Use	4,441	3,533	4,907	5,052	5,162	5,126	5,092	5,062	5,085	5,106	5,127	5,149	5,149
Ending Stocks	473	543	667	668	669	670	673	674	674	674	675	676	700
Stocks/Use (Percent)	10.7	15.4	13.6	13.2	13.0	13.1	13.2	13.3	13.2	13.2	13.2	13.1	13.6
Price	Dollars per Pound												
Marketing-Year Average	0.1840	0.3300	0.2400	0.2243	0.1950	0.1930	0.1920	0.1910	0.1910	0.1910	0.1910	0.1910	0.1910
Reference Price	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015
Loan Rate	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009

The marketing year for canola runs from June 1 of the year shown through May 31 of the subsequent year.
Source: Congressional Budget Office.

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Flaxseed Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	95.7	2.5	90.0	87.5	82.5	80.0	80.0	67.5	75.0	77.5	77.5	2.5	2.5
ARC-CO	3.9	96.7	9.2	11.7	16.7	19.2	19.2	31.7	24.2	21.7	21.7	96.7	96.7
ARC-IC	0.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Acreage	Millions of Acres												
Base Acres	0.230	0.227	0.227	0.227	0.227	0.227	0.227	0.227	0.227	0.227	0.227	0.227	0.227
Planted	0.305	0.325	0.400	0.400	0.390	0.390	0.390	0.390	0.390	0.390	0.400	0.400	0.400
Harvested	0.296	0.268	0.368	0.368	0.359	0.359	0.359	0.359	0.359	0.359	0.368	0.368	0.368
Yield	Bushels per Acre												
Yield per Harvested Acre	19.3	10.0	20.6	20.6	20.8	21.0	21.2	21.2	21.2	21.3	21.6	21.8	22.0
Yield per Planted Acre	19.4	19.5	19.6	19.6	19.7	19.8	19.9	20.0	20.0	20.1	20.2	20.2	20.2
Payment Yield—PLC	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
Supply	Millions of Bushels												
Beginning Stocks	1.263	2.005	0.461	2.538	3.699	3.817	3.582	3.038	2.536	2.122	1.715	1.599	1.642
Production	5.706	2.680	7.581	7.581	7.463	7.535	7.607	7.607	7.607	7.642	7.949	8.022	8.096
Imports	4.728	4.500	4.542	4.626	4.710	4.794	4.873	4.957	5.041	5.125	5.209	5.295	5.295
Total Supply	11.697	9.185	12.584	14.745	15.872	16.146	16.061	15.602	15.183	14.890	14.873	14.916	15.033
Use													
Crush	8.000	7.000	8.000	9.000	10.000	10.500	10.950	11.000	11.200	11.300	11.400	11.500	11.600
Seed	0.316	0.324	0.324	0.316	0.316	0.316	0.316	0.316	0.316	0.324	0.324	0.324	0.316
Residual	0.192	0.300	0.621	0.630	0.639	0.648	0.657	0.650	0.645	0.650	0.650	0.650	0.650
Domestic Use	8.508	7.624	8.945	9.946	10.955	11.464	11.923	11.966	12.161	12.274	12.374	12.474	12.566
Exports	1.184	1.100	1.100	1.100	1.100	1.100	1.100	1.100	0.900	0.900	0.900	0.800	0.800
Total Use	9.692	8.724	10.045	11.046	12.055	12.564	13.023	13.066	13.061	13.174	13.274	13.274	13.366
Ending Stocks	2.005	0.461	2.538	3.699	3.817	3.582	3.038	2.536	2.122	1.715	1.599	1.642	1.667
Stocks/Use (Percent)	20.7	5.3	25.3	33.5	31.7	28.5	23.3	19.4	16.2	13.0	12.0	12.4	12.5
Prices	Dollars per Bushel												
Marketing-Year Average	11.10	27.00	16.25	11.11	10.44	10.34	10.35	10.26	10.39	10.35	10.31	9.50	10.38
Reference Price	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28	11.28
Loan Rate	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65

The marketing year for flaxseed runs from June 1 of the year shown to May 31 of the following year. A bushel of flaxseed weighs 56 pounds.
Source: Congressional Budget Office.

Safflower Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	88.4	2.5	25.0	70.0	82.5	82.5	80.0	67.5	70.0	70.0	70.0	2.5	2.5
ARC-CO	11.4	94.3	71.8	26.8	14.3	14.3	16.8	29.3	26.8	26.8	26.8	94.3	94.3
ARC-IC	0.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Acreage	Millions of Acres												
Base Acres	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
Planted	0.138	0.152	0.143	0.142	0.141	0.140	0.139	0.138	0.137	0.136	0.135	0.134	0.134
Harvested	0.128	0.135	0.136	0.135	0.134	0.133	0.132	0.131	0.130	0.129	0.129	0.128	0.128
Yield	Pounds per Acre												
Yield per Harvested Acre	1,185	1,001	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,351
Yield per Planted Acre	551	445	643	643	643	643	643	643	643	643	643	643	643
Payment Yield—PLC	986	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007
Supply	Millions of Pounds												
Beginning Stocks	3.8	6.7	3.0	6.5	8.9	11.1	13.4	15.5	17.7	19.8	21.9	23.9	26.1
Production	76.1	67.6	91.9	91.2	90.6	90.0	89.3	88.7	88.0	87.4	86.8	86.1	86.2
Imports	3.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Supply	83.0	75.3	95.9	98.8	100.5	102.1	103.7	105.2	106.7	108.2	109.6	111.1	113.2
Use													
Crush	66.9	62.9	79.3	79.9	79.4	78.8	78.3	77.7	77.1	76.6	76.0	75.4	78.1
Seed	3.4	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4
Residual	3.7	3.7	4.5	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.2	4.2
Total Domestic Use	74.0	70.2	87.4	87.9	87.4	86.7	86.2	85.5	84.9	84.3	83.7	83.0	85.7
Exports	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Total Use	76.3	72.2	89.4	89.9	89.4	88.7	88.2	87.5	86.9	86.3	85.7	85.0	87.7
Ending Stocks	6.7	3.0	6.5	8.9	11.1	13.4	15.5	17.7	19.8	21.9	23.9	26.1	25.5
Stocks/Use (Percent)	8.7	4.2	7.3	9.9	12.4	15.1	17.6	20.2	22.8	25.4	27.9	30.6	29.1

Safflower Supply and Use—Continued

	Marketing Year													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Actual	Projected												
Prices	Dollars per Pound													
Marketing-Year Average	0.2150	0.3100	0.2600	0.2500	0.2300	0.2100	0.2079	0.2062	0.2079	0.2079	0.2079	0.2079	0.2079	0.2079
Reference Price	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015
Loan Rate	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009

The marketing year for safflower runs from September 1 of the year shown to August 31 of the following year.
Source: Congressional Budget Office.

Mustard Seed Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	88.5	5.0	65.0	52.5	55.0	40.0	37.5	25.0	27.5	25.0	30.0	2.5	2.5
ARC-CO	11.5	89.2	29.2	41.7	39.2	54.2	56.7	69.2	66.7	69.2	64.2	91.7	91.7
ARC-IC	0.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Acreage	Millions of Acres												
Base Acres	0.025	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
Planted	0.097	0.103	0.099	0.099	0.099	0.099	0.100	0.100	0.100	0.100	0.101	0.101	0.101
Harvested	0.091	0.089	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.092	0.092	0.093	0.093
Yield	Pounds per Acre												
Yield per Harvested Acre	895	491	800	802	804	806	808	810	812	814	816	818	820
Yield per Planted Acre	843	426	736	738	740	742	743	745	747	749	751	753	754
Payment Yield—PLC	685	683	683	683	683	683	683	683	683	683	683	683	683
Supply	Millions of Pounds												
Beginning Stocks	7.2	7.5	1.1	3.4	6.2	9.1	12.3	15.6	19.2	22.9	26.9	31.0	35.3
Production	81.8	43.8	72.5	72.9	73.2	73.6	74.0	74.3	74.7	75.1	75.4	75.8	76.0
Imports	129.7	140.0	140.5	141.0	141.5	142.0	142.5	143.0	143.5	144.0	144.5	145.0	145.5
Total Supply	218.7	191.3	214.1	217.2	220.9	224.7	228.7	233.0	237.4	242.0	246.8	251.8	256.8
Use													
Crush	172.1	168.0	173.7	173.9	174.3	174.7	175.1	175.5	175.8	176.2	176.6	177.0	177.4
Seed	10.9	1.5	10.9	10.9	11.0	11.0	11.0	11.1	11.1	11.1	11.2	11.2	11.2
Residual	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Domestic Use	183.8	170.3	185.4	185.6	186.0	186.4	186.9	187.3	187.7	188.1	188.6	189.0	189.4
Exports	27.5	20.0	25.3	25.5	25.8	26.0	26.3	26.5	26.8	27.0	27.3	27.5	27.8
Total Use	211.2	190.3	210.7	211.1	211.8	212.4	213.1	213.8	214.5	215.1	215.8	216.5	217.2
Ending Stocks	7.5	1.1	3.4	6.2	9.1	12.3	15.6	19.2	22.9	26.9	31.0	35.3	39.7
Stocks/Use (Percent)	3.5	0.6	1.6	2.9	4.3	5.8	7.3	9.0	10.7	12.5	14.4	16.3	18.3
Prices	Dollars per Pound												
Marketing-Year Average	0.2670	0.3760	0.3310	0.3230	0.3000	0.2965	0.2995	0.3010	0.3020	0.3050	0.3065	0.3085	0.3100
Reference Price	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015
Loan Rate	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009

The marketing year for mustard seed runs from September 1 of the year shown through August 31 of the subsequent year.
Source: Congressional Budget Office.

Rapeseed (Inedible) Supply and Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Participation	Percentage of Base Acres												
PLC	95.7	20.0	50.0	67.5	67.5	65.0	62.5	50.0	55.0	52.5	55.0	2.5	2.5
ARC-CO	4.3	78.1	48.1	30.6	30.6	33.1	35.6	48.1	43.1	45.6	43.1	95.6	95.6
ARC-IC	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Acreage	Millions of Acres												
Base Acres	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Planted	0.011	0.014	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
Harvested	0.010	0.013	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Yield	Pounds per Acre												
Yield per Harvested Acre	1,971	1,809	1,991	2,001	2,011	2,021	2,031	2,041	2,051	2,061	2,071	2,081	2,091
Yield per Planted Acre	1,778	1,582	1,914	1,924	1,933	1,943	1,952	1,962	1,972	1,981	1,991	2,000	2,010
Payment Yield—PLC	1,433	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435
Supply	Millions of Pounds												
Beginning Stocks	1.191	2.438	0.717	1.869	1.868	1.910	1.954	1.998	2.043	2.088	2.133	2.179	2.516
Production	19,910	22,616	29,666	29,815	29,964	30,113	30,262	30,411	30,560	30,709	30,858	31,007	31,156

Rapeseed (Inedible) Supply and Use—Continued

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Imports	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Supply	21.101	25.054	30.382	31.684	31.832	32.023	32.216	32.409	32.603	32.797	32.991	33.186	33.672
Use													
Crush	17.861	23.489	27.338	28.664	28.767	28.908	29.052	29.195	29.339	29.483	29.626	29.770	29.770
Seed	0.695	0.733	1.060	1.036	1.039	1.045	1.050	1.055	1.060	1.065	1.070	0.784	0.784
Residual	0.107	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.000
Domestic Use	18.663	24.338	28.514	29.816	29.922	30.069	30.218	30.366	30.515	30.664	30.812	30.670	30.554
Exports	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Use	18.663	24.338	28.514	29.816	29.922	30.069	30.218	30.366	30.515	30.664	30.812	30.670	30.554
Ending Stocks	2.438	0.717	1.869	1.868	1.910	1.954	1.988	2.043	2.088	2.133	2.179	2.516	3.118
Stocks/Use (Percent)	13.1	2.9	6.6	6.3	6.4	6.5	6.6	6.7	6.8	7.0	7.1	8.2	10.2
Prices	Dollars per Pound												
Marketing-Year Average	0.1890	0.2400	0.2600	0.2025	0.2050	0.2070	0.2090	0.2120	0.2130	0.2160	0.2175	0.2200	0.2220
Reference Price	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015	0.2015
Loan Rate	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009	0.1009

The marketing year for rapeseed runs from June 1 of the year shown to May 31 of the following year.
Source: Congressional Budget Office.

Minor Oilseed Program Outlays

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Estimated	Projected											
	Millions of Dollars												
Sunflower Seed													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	10	0	0	1	17	34	36	37	24	23	25	25	25
Agriculture Risk Coverage	2	0	0	1	1	4	8	8	14	10	7	7	7
Total Sunflower Seed	11	0	0	2	18	37	44	45	38	33	33	33	32
Canola													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	91	34	0	3	14	33	37	42	27	29	31	30	30
Agriculture Risk Coverage	0	0	0	1	1	4	6	6	12	8	6	6	6
Total Canola	91	34	0	4	16	37	43	48	39	37	37	37	36
Flaxseed													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	6	1	0	1	4	5	6	6	4	4	4	4	4
Agriculture Risk Coverage	0	0	0	0	0	0	0	1	1	1	1	1	1
Total Flaxseed	6	1	0	1	5	6	6	7	5	5	5	5	5
Safflower													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	0	0	0	0	0	1	1	1	1	1	1	1	1
Agriculture Risk Coverage	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Safflower	0	0	0	0	0	1	1	1	1	1	1	1	1
Mustardseed													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	0	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture Risk Coverage	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Mustardseed	0	0	0	0	0	0	0	0	0	0	0	0	0
Rapeseed (Inedible)													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	0	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture Risk Coverage	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Rapeseed	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Minor Oilseeds													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Loss Coverage	107	34	0	5	36	73	80	86	57	57	61	61	61
Agriculture Risk Coverage	2	0	1	2	2	8	14	15	27	19	14	13	13
Total Minor Oilseeds	109	35	1	6	38	81	94	101	84	76	75	74	74

Source: Congressional Budget Office.

ELS Cotton Supply & Use

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage and Yield	Thousands of Acres												

ELS Cotton Supply & Use—Continued

	Marketing Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Planted	202	127	176	220	220	225	225	225	225	220	220	225	225
Harvested	194	124	174	217	217	222	222	222	222	217	217	222	222
Harvested Yield (Lbs./Acre)	1,352	1,423	1,426	1,433	1,440	1,447	1,447	1,455	1,462	1,469	1,477	1,484	1,484
Supply	Thousands of 480 lb Bales												
Beginning Stocks	381.2	129.2	57.8	10.0	29.4	36.9	36.9	42.5	41.3	43.4	33.6	27.1	39.1
Production	547.0	367.6	516.4	648.7	651.9	670.1	670.1	673.4	676.8	665.0	668.4	687.0	687.0
Imports	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
Total Supply	929.2	497.8	575.2	659.7	682.3	708.0	708.0	716.9	719.1	709.4	703.0	715.1	728.0
Use	Dollars per Pound												
Mill Use	15.0	15.0	15.2	15.3	15.4	15.5	15.5	15.6	15.7	15.8	15.9	16.0	16.0
Exports	785.0	425.0	550.0	615.0	630.0	650.0	650.0	660.0	660.0	660.0	660.0	660.0	660.0
Total Use	800.0	440.0	565.2	630.3	645.4	665.5	665.5	675.6	675.7	675.8	675.9	676.0	676.0
Unaccounted	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Stocks	129.2	57.8	10.0	29.4	36.9	42.5	42.5	41.3	43.4	33.6	27.1	39.1	52.0
Stocks/Use (Percent)	16.2	13.1	1.8	4.7	5.7	6.4	6.4	6.1	6.4	5.0	4.0	5.8	7.7
Marketing-Year Average	1.1900	2.3660	2.1937	1.4734	1.4183	1.4244	1.4244	1.4236	1.4216	1.4184	1.4191	1.4249	1.4249
Loan Rate	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500

The marketing year for ELS cotton runs from August 1 of the year shown to July 31 of the following year.
Source: Congressional Budget Office.

ELS Cotton Program Outlays

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
Loan Activity	Millions of 480 lb Bales												
Beginning Loans Outstanding	0.173	0.034	0.028	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032
Loans Made	0.292	0.184	0.258	0.324	0.326	0.326	0.335	0.337	0.338	0.338	0.333	0.334	0.343
Cash Repayments	0.431	0.190	0.254	0.324	0.326	0.326	0.335	0.337	0.338	0.333	0.333	0.334	0.343
Noncash Repayments	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers, Writeoffs	0	0	0	0	0	0	0	0	0	0	0	0	0
Forfeitures	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Loans Outstanding	0.094	0.028	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032
Net Lending	Millions of Dollars												
Loans Made	136	84	118	148	149	149	153	154	154	152	152	152	157
Loans Repaid	202	87	116	148	149	149	153	154	154	152	152	152	157
Net Loans	16	-3	2	0	0	0	0	0	0	0	0	0	0
CCC Storage, Transportation, Handling	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	16	-3	2	0	0	0	0	0	0	0	0	0	0
Direct Cash Payments	Millions of Dollars												
Competitiveness Payments	4	0	1	1	3	3	3	3	3	3	3	3	3
Other Costs	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Outlays	4	0	1	1	3	3	3	3	3	3	3	3	3

Source: Congressional Budget Office.

Dry Field Pea Supply and Use

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage	Thousands of Acres												
Base Acres	440	440	440	440	440	440	440	440	440	440	440	440	440
Total Planted Acres	998	977	900	920	940	950	965	980	995	1,010	1,025	1,040	1,055
Total Harvested Acres	970	834	846	865	884	893	907	921	935	949	964	978	992
Yield	Pounds per Acre												
Yield per Harvested Acre	1,972	1,025	2,265	2,281	2,297	2,313	2,329	2,346	2,362	2,379	2,395	2,412	2,429
Yield per Planted Acre	2,167	875	2,129	2,144	2,159	2,174	2,190	2,205	2,220	2,236	2,252	2,267	2,283
Payment Yield—PLC	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840
Supply	Thousands of Hundredweight												
Beginning Stocks	6,533	3,274	4,401	4,180	4,212	4,497	4,834	4,825	4,968	5,263	5,210	5,308	5,556
Production	21,629	8,549	19,165	19,728	20,298	20,658	21,131	21,609	22,094	22,584	23,080	23,581	24,089
Imports	2,350	4,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Total Supply	30,512	24,953	25,888	26,230	26,831	27,476	28,287	28,756	29,384	30,169	30,611	31,211	31,967
Use	Thousands of Hundredweight												
Seed Use	1,518	1,530	1,386	1,417	1,448	1,463	1,486	1,509	1,532	1,555	1,579	1,602	1,625

Dry Field Pea Supply and Use—Continued

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Domestic and Residual	14,000	13,000	14,000	14,280	14,566	14,857	15,154	15,457	15,766	16,082	16,403	16,731	17,066
Total Domestic Use	15,518	14,530	15,386	15,697	16,013	16,320	16,640	16,966	17,299	17,637	17,982	18,333	18,691
Exports	11,152	7,200	7,500	7,500	7,500	7,500	8,000	8,000	8,000	8,500	8,500	8,500	9,000
Total Use	26,670	21,730	22,886	23,197	23,513	23,820	24,640	24,966	25,299	26,137	26,482	26,833	27,691
Unaccounted Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Stocks/Use (Percent)	3,842	3,223	3,002	3,033	3,318	3,656	3,647	3,790	4,085	4,032	4,130	4,378	4,276
	14.4	14.8	13.1	13.1	14.1	15.3	14.8	15.2	16.1	15.4	15.6	16.3	15.4
Prices	Dollars per Hundredweight (Marketing-year basis)												
Marketing-Year Average	9.84	9.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Loan Rate	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15
Reference Price	11.00	11.00	11.00	11.00	11.00	11.00	12.00	13.00	13.00	14.00	14.00	14.00	14.00

The marketing year for dry field peas runs from July 1 of the year shown to June 30 of the following year. Ending stocks are as of June 1, as reported by USDA.
Source: Congressional Budget Office.

Lentil Supply and Use

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage	Thousands of Acres												
Base Acres (Total ARC/PLC)	286	286	286	286	286	286	286	286	286	286	286	286	286
Total Planted Acres	523	708	650	675	650	650	675	650	650	650	650	650	650
Total Harvested Acres	510	549	590	612	590	590	612	590	590	590	590	590	590
Yield	Pounds per Acre												
Yield per Harvested Acre	1,451	606	610	615	619	623	628	632	636	641	645	650	654
Yield per Planted Acre	1,415	470	554	557	561	565	569	573	577	581	585	589	593
Payment Yield—PLC	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212	1,212
Supply	Thousands of Hundredweight												
Beginning Stocks	1,826	1,639	1,826	1,778	1,893	1,844	1,820	1,913	1,888	1,838	1,815	1,817	1,845
Production	7,398	3,327	3,598	3,762	3,648	3,674	3,842	3,725	3,751	3,778	3,804	3,831	3,856
Imports	1,498	1,800	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Total Supply	10,722	6,766	7,024	7,140	7,141	7,118	7,262	7,238	7,239	7,216	7,219	7,248	7,301
Use	Thousands of Hundredweight												
Food	1,200	1,200	1,250	1,250	1,300	1,300	1,350	1,350	1,400	1,400	1,400	1,400	1,400
Seed	500	390	390	390	389	390	390	390	390	390	390	390	390
Feed and Residual	533	250	106	107	108	108	109	110	111	111	112	113	113
Total Domestic Use	2,233	1,840	1,746	1,747	1,797	1,798	1,849	1,850	1,901	1,901	1,902	1,903	1,903
Exports	6,850	3,100	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Total Use	9,083	4,940	5,246	5,247	5,297	5,298	5,349	5,350	5,401	5,401	5,402	5,403	5,404
Unaccounted Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Stocks/Use (Percent)	1,639	1,826	1,778	1,893	1,844	1,820	1,913	1,888	1,838	1,815	1,817	1,845	1,898
	18.0	37.0	33.9	36.1	34.8	34.4	35.8	35.3	34.0	33.6	33.6	34.1	35.1
Prices	Dollars per Hundredweight (Marketing-year basis)												
Marketing-Year Average	18.20	18.00	19.00	18.50	19.00	19.50	19.00	19.50	20.00	20.00	20.00	20.00	20.00
Loan Rate	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Reference Price	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97	19.97

The marketing year for lentils runs from July 1 of the year shown to June 30 of the following year. Ending stocks are as of June 1, as reported by USDA.
Source: Congressional Budget Office.

Large Chickpea Supply and Use

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acreage	Acres												
Base Acres	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000	82,000
Total Planted Acres	212,400	309,200	320,000	320,000	330,000	340,000	350,000	360,000	370,000	380,000	387,600	395,352	403,259
Total Harvested Acres	209,800	297,500	304,000	304,000	313,500	323,000	332,500	342,000	351,500	361,000	368,220	375,584	383,096
Yield	Pounds per Acre												
Yield per Harvested Acre	1,619	826	1,582	1,590	1,598	1,606	1,614	1,622	1,630	1,638	1,646	1,654	1,662
Yield per Planted Acre	1,599	795	1,503	1,511	1,518	1,526	1,533	1,541	1,548	1,556	1,564	1,571	1,579
Payment Yield—PLC	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412	1,412
Supply	Thousands of Hundredweight												

Large Chickpea Supply and Use—Continued

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Beginning Stocks	2,490	1,605	662	1,218	1,779	1,840	1,888	1,924	1,949	1,963	1,970	1,977	1,974
Production	3,396	2,457	4,809	4,834	5,010	5,187	5,367	5,547	5,729	5,913	6,061	6,212	6,367
Imports	691	300	525	529	533	537	541	545	549	553	557	561	565
Total Supply	6,577	4,362	5,996	6,581	7,322	7,564	7,796	8,016	8,227	8,429	8,588	8,750	8,906
Use													
Domestic & Residual	3,100	1,350	1,830	1,840	1,900	1,970	2,040	2,110	2,180	2,250	2,300	2,360	2,420
Seed	323	350	448	462	476	490	504	518	532	543	553	565	576
Exports	2,612	2,000	2,500	2,500	3,106	3,216	3,328	3,439	3,552	3,666	3,758	3,851	3,948
Total Use	6,035	3,700	4,778	4,802	5,482	5,676	5,872	6,067	6,264	6,459	6,611	6,776	6,944
Ending Stocks	542	662	1,218	1,779	1,840	1,888	1,924	1,949	1,963	1,970	1,977	1,974	1,962
Stocks/Use (Percent)	9.0	17.9	25.5	37.0	33.6	33.3	32.8	32.1	31.3	30.5	29.9	29.1	28.3
Prices	Dollars per Hundredweight (Marketing-year basis)												
Marketing-Year Average	23.30	25.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
Loan Rate	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Reference Price	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54	21.54

The marketing year for large chickpeas runs from September 1 of the year shown to August 31 of the following year. Ending stocks are as of June 1, as reported by USDA.
Source: Congressional Budget Office.

Small Chickpea Supply and Use

	June–May Year												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Actual	Projected											
Acres	Acres												
Base Acres	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000
Total Planted Acres	41,700	59,300	61,979	62,911	64,798	66,742	68,744	70,806	72,930	75,118	77,372	79,693	82,084
Total Harvested Acres	41,000	53,500	59,552	61,338	63,178	65,073	67,025	69,036	71,107	73,240	75,438	77,701	80,032
Yield	Pounds per Acre												
Yield per Harvested Acre	1,685	755	1,600	1,611	1,622	1,633	1,644	1,656	1,668	1,680	1,692	1,704	1,716
Yield per Planted Acre	1,657	681	1,560	1,570	1,582	1,593	1,603	1,614	1,626	1,637	1,649	1,661	1,673
Payment Yield—PLC	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438
Supply	Thousands of Hundredweight												
Beginning Stocks	1,399	691	280	275	276	288	286	296	320	335	366	416	437
Production	691	404	953	988	1,025	1,063	1,102	1,143	1,186	1,230	1,276	1,324	1,373
Imports	691	800	700	700	700	700	700	700	700	700	700	700	700
Total Supply	2,781	1,895	1,933	1,963	2,001	2,051	2,088	2,139	2,206	2,265	2,342	2,440	2,510
Use													
Domestic and Residual	1,573	1,257	1,298	1,325	1,350	1,375	1,400	1,425	1,450	1,475	1,500	1,525	1,550
Seed	56	58	60	62	63	65	67	69	71	74	76	78	80
Exports	461	300	300	300	300	325	325	325	350	350	350	400	400
Total Use	2,090	1,615	1,658	1,687	1,713	1,765	1,792	1,819	1,871	1,899	1,926	2,003	2,030
Ending Stocks	691	280	275	276	288	286	296	320	335	366	416	437	480
Stocks/Use (Percent)	33.1	17.3	16.6	16.4	16.8	16.2	16.5	17.6	17.9	19.3	21.6	21.8	23.6
Prices	Dollars per Hundredweight (Marketing-year basis)												
Marketing-Year Average	20.00	20.00	22.00	23.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Loan Rate	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Reference Price	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04

The marketing year for small chickpeas runs from September 1 of the year shown to August 31 of the following year. Ending stocks are as of June 1, as reported by USDA.
Source: Congressional Budget Office.

Pulse Crop Outlays

	Fiscal Year												
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Estimated	Projected											
	Millions of Dollars												
Dry Field Peas													
Marketing Assistance Loan Benefits	0	3	3	0	0	2	2	2	1	0	0	0	
Price Loss Coverage	8	7	0	0	0	0	0	0	0	0	0	0	
Agriculture Risk Coverage	0	0	9	10	7	7	7	6	6	5	5	5	
Total Dry Field Peas	8	10	12	10	7	9	9	8	7	5	5	5	
Lentils													
Marketing Assistance Loan Benefits	2	1	0	0	0	0	0	0	0	0	0	0	
Price Loss Coverage	16	11	15	19	22	0	0	0	0	3	17	7	
Agriculture Risk Coverage	0	0	0	0	0	0	0	0	0	0	0	0	
Total Lentils	18	12	15	19	22	0	0	0	0	3	17	7	
Large Chickpeas													
Marketing Assistance Loan Benefits	0	0	0	0	0	0	0	0	0	0	0	0	
Price Loss Coverage	5	1	1	1	1	1	1	1	1	1	1	0	
Agriculture Risk Coverage	0	0	0	0	0	4	5	5	4	3	3	5	
Total Large Chickpeas	6	1	1	1	1	5	6	6	5	4	4	5	
Small Chickpeas													
Marketing Assistance Loan Benefits	6	6	6	7	0	0	0	0	0	6	2	1	
Price Loss Coverage	0	1	0	0	0	0	0	0	0	0	0	0	
Agriculture Risk Coverage	0	0	0	0	0	0	0	0	0	0	0	0	
Total Small Chickpeas	6	7	6	7	0	0	0	0	0	6	2	1	
Total Pulse Crops													
Marketing Assistance Loan Benefits	8	10	9	7	0	2	2	2	1	6	2	1	
Price Loss Coverage	29	20	16	20	23	1	1	1	1	4	18	7	
Agriculture Risk Coverage	0	0	9	10	7	11	12	11	10	8	8	10	
Total Pulse Crops	37	30	34	38	31	14	15	14	12	19	29	19	

Source: Congressional Budget Office.

SUPPLEMENTARY MATERIAL SUBMITTED BY JOSEPH P. JANZEN, PH.D., ASSISTANT PROFESSOR, AGRICULTURAL AND CONSUMER ECONOMICS, DEPARTMENT OF AGRICULTURAL AND CONSUMER ECONOMICS, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Insert

Mr. THOMPSON. Yes, now, I am going to tee this one up and would love to follow up individually with you just because all the time remaining. I have been hearing a lot about—and I want to kind of look at the economic impact on commodity prices, but it is a total curveball. It has to do with solar fields being on fertile farmlands. And I think some of our other Members of the Committee are hearing about this as well. That is putting out policies that—policies have impact, right? I am recently hearing a lot of discussion and concern that government policy is incentivizing placement of solar farms on fertile farm, not marginal, but fertile farm land driving up the competition for leasing acreage, and that is really important for our young and beginning farmers. And so I would love to follow up with you, any thoughts you might have in writing or in person, if this is or could be a significant input cost variable going forward, just cost of acreage.

There is no currently available estimate of the impact of existing or proposed utility-scale solar installations on the price of agricultural land. Similarly, the degree to which government policies have incentivized utility-scale solar installations is not known with precision. Both effects are likely to vary considerably across states since policy incentives, farmland values, the availability of non-agricultural land, and solar power output vary considerably across space. Many of these parameters also vary across time. For instance, a recent study^{1*} from the Lawrence Berkeley Laboratory suggests the land requirements per unit of power generated have fallen con-

¹M. Bolinger and G. Bolinger, "Land Requirements for Utility-Scale PV: An Empirical Update on Power and Energy Density," † in *IEEE Journal of Photovoltaics*, vol. 12, no. 2, pp. 589–594, March 2022, doi: 10.1109/JPHOTOV.2021.3136805.

* **Editor's note:** footnotes annotated with † are retained in Committee file.

siderably over time. Finally, policy incentives are numerous and complex² so estimating their impact on land values is difficult.

Even assuming government incentives are responsible for all solar installations and that all solar installations occur on farmland, the impact of existing and proposed solar installations on farmland values is likely to be small because the number of agricultural land acres possibly impacted by conversion is small. By one estimate,³ the proportion of land in existing and proposed solar projects in the average county in the U.S. Midwest is 0.005% of the quantity of agricultural land.

That said, more research is needed to answer the specific question proposed by the Representative. The impact of farmland conversion to alternative commercial and residential uses more generally is thought to be significant,⁴ although the impact of any one specific type of conversion (*e.g.*, for utility-scale solar) is likely to be smaller.

SUPPLEMENTARY MATERIAL SUBMITTED BY ROBERT H. CRAVEN, ASSOCIATE DIRECTOR AND EXTENSION PROFESSOR, CENTER FOR FARM FINANCIAL MANAGEMENT, DEPARTMENT OF APPLIED ECONOMICS, UNIVERSITY OF MINNESOTA

Insert

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Congressman Thompson,

Thanks for the question regarding “solar farms.” We don’t have any data in our FINBIN database that directly address your question. My observation in MN and surrounding states is that the development of solar farms has been on relatively marginal farm land. I do not expect solar farms to have an impact on the availability or price of quality farm land.

ROBERT H. CRAVEN,
University of Minnesota.

SUPPLEMENTARY MATERIAL SUBMITTED BY JOE L. OUTLAW, PH.D., PROFESSOR, EXTENSION ECONOMIST, AND CO-DIRECTOR, AGRICULTURAL AND FOOD POLICY CENTER, DEPARTMENT OF AGRICULTURAL ECONOMICS, TEXAS A&M UNIVERSITY

Insert 1

Mr. THOMPSON. Yes, now, I am going to tee this one up and would love to follow up individually with you just because all the time remaining. I have been hearing a lot about—and I want to kind of look at the economic impact on commodity prices, but it is a total curveball. It has to do with solar fields being on fertile farmlands. And I think some of our other Members of the Committee are hearing about this as well. That is putting out policies that—policies have impact, right? I am recently hearing a lot of discussion and concern that government policy is incentivizing placement of solar farms on fertile farm, not marginal, but fertile farm land driving up the competition for leasing acreage, and that is really important for our young and beginning farmers. And so I would

²Department of Energy Office of Energy Efficiency and Renewable Energy, “Renewable Energy: Utility-Scale Policies and Programs”, <https://www.energy.gov/eere/spsc/renewable-energy-utility-scale-policies-and-programs>.

³Wyatt, J., and M. Kristian, “The True Land Footprint of Solar Energy,” † September 2021, <https://betterenergy.org/blog/the-true-land-footprint-of-solar-energy/>.

⁴Kueth, T.H., J. Ifft, and M. Morehart. 2011. “The Influence of Urban Areas on Farmland Values” † *Choices*. Quarter 2. Available online: <http://choicesmagazine.org/choices-magazine/theme-articles/farmland-values/the-influence-of-urban-areas-on-farmland-values>.

love to follow up with you, any thoughts you might have in writing or in person, if this is or could be a significant input cost variable going forward, just cost of acreage.

This confirms what I have witnessed and what I am hearing from colleagues in the South. Wind farm operators are targeting cropland so they will not have to undertake the cost of clearing and leveling the land for solar installation. Specifically as it relates to policy, a lot of agricultural policy has unintended consequences and this is another example. Incentivizing solar production in the suite of all renewable energy policy has the effect of reducing the cost of installation/operation of solar farms. This in turn makes it profitable to pay more for land for solar farms. Many solar farms are being located on productive farmland which reduces the available supply of farmland and increases costs.

Insert 2

Mr. ALLEN. Farmers in my district have signed on to a petition which requests that a lack of agronomic inputs be included as covered peril under the 2022 MPCl policy.* Can you comment on that?

Dr. OUTLAW. I would say that—

The standard MPCl policy covers a large array of causes of loss. The unavailability of necessary production inputs (at the time they are needed) would also cause losses for producers. While it may be difficult to prove loss, this is definitely an area that RMA should look into as the agriculture supply chains continue to prove unreliable.

ATTACHMENT

April 14, 2022

Congressman Rick W. Allen,
Statesboro Office,
Statesboro, GA.

Dear Congressman Allen:

We would like to take this opportunity to point out an operational and economic issue farmers are facing in 2022. Regardless of the fact that there are multiple contributors to the problem, 2022 poses a significant financial threat to the farm community due to major supply chain issues. Farmers are anticipating difficulties sourcing Herbicides, Fungicides, and Fertilizer needed to successfully make their crop yields. Why, you may ask, is this such an important issue for the upcoming year? To date, “lack of agronomics inputs” is a *non-insured* peril under current Multi-Peril Crop Insurance policies (MPCl). This means that the inability to produce a favorable yield due to the *inability to secure necessary supplies* will lead to farmers being denied claims on the basis of policy exclusions.

We believe, and hope, that you will support any effort to **require** USDA/FCIC/RMA to include “lack of agronomics inputs” as a covered peril in the 2022 MPCl policy. USDA made a favorable effort to extend deadlines as a result of [COVID], so we are certain that something can be done to cover the above mentioned peril, on a temporary basis at minimum, in an effort to prevent farmers from financial ruin.

We would like to thank you, in advance, for your continued support! A petition in support of this request is attached and signed for your review.

Best regards,

Georgia Farmers.



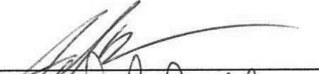
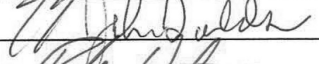
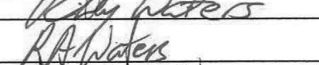
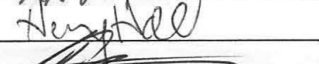
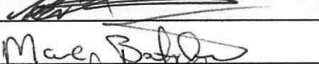
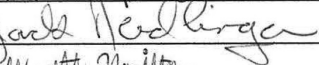
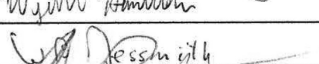
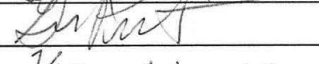
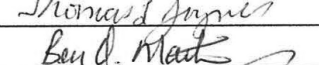
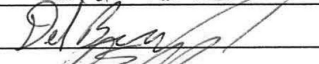
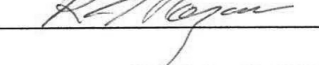
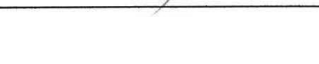



SID NEWTON.

Petition Request To Include “Lack of Agronomics Inputs” on 2022 MPCl Policies as a Covered Peril for Crop Insurance

* See *Attachment* submitted by Hon. Rick W. Allen.

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| 2. <u>Joe Piro</u> | 2. <u>Jack C. Math</u> |
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| 6. <u>Ally Robinson II</u> | 6. <u>Dexter Skaggs</u> |
| 7. <u>W. Warren Ball</u> | 7. <u>Danny Cooper</u> |
| 8. <u>Will Ball</u> | 8. <u>Andre Miller</u> |
| 9. <u>Michael Riggs</u> | 9. <u>Lowell Morgan</u> |
| 10. <u>Kam D. Brannen</u> | 10. <u>Kamie Proctor</u> |
| 11. <u>Lynn Walker</u> | 11. <u>Jason Bault</u> |
| 12. <u>R. Morgan</u> | 12. <u>Wayne A. Brannen</u> |
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| 1. <u>Joan Lopez</u> | 21. <u>Samy Bon</u> |
| 2. <u>Brandon Lee</u> | 22. <u>Ray O'Neil</u> |
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| 4. <u>R. G. Black</u> | 24. <u>Carrie J. Newton</u> |
| 5. <u>Ross New</u> | 25. <u>Julia Chelsea Newton</u> |
| 6. <u>Anthony R. 0288</u> | 26. <u>Bellie J. Newton</u> |
| 7. <u>Basil Lee Page</u> | 27. <u>Ward. Bush</u> |
| 8. <u>[Signature]</u> | 28. <u>[Signature]</u> |
| 9. <u>Michael Blue</u> | 29. <u>Sharon John</u> |
| 10. <u>John Hunter</u> | 30. <u>[Signature]</u> |
| 11. <u>Bob [Signature]</u> | 31. _____ |
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**A 2022 REVIEW OF THE FARM BILL
(STAKEHOLDER PERSPECTIVES ON NON-SNAP USDA
NUTRITION PROGRAMS)**

TUESDAY, JUNE 14, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:06 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, Costa, McGovern, Adams, Spanberger, Hayes, Brown, Pingree, Sablan, Kuster, Plaskett, Carbajal, Lawson, Craig, Harder, Axne, Schrier, Panetta, Kaptur, Thompson, Austin Scott of Georgia, Crawford, Hartzler, LaMalfa, Allen, Rouzer, Kelly, Bacon, Johnson, Baird, Cloud, Mann, Feenstra, Moore, Cammack, and Fischbach.

Staff present: Caitlin Balagula, Lyron Blum-Evitts, Prescott Martin III, Amar Nair, Ashley Smith, Katherine Stewart, Caleb Crosswhite, Jennifer Tiller, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. All right. Welcome, everyone. The Committee will now come to order. And I want to thank everyone for joining us here today for *A 2022 Review of the Farm Bill: Stakeholder Perspectives on Non-SNAP USDA Nutrition Programs*, a very important hearing. After our brief opening remarks, Members will receive the testimony from our witnesses today, and then the hearing will be open for questions.

And so, let me just start by again saying welcome to all of you. I really appreciate you all coming in and sharing this vital information on *A 2022 Review of the Farm Bill: Stakeholder Perspectives on Non-SNAP USDA Nutrition Programs*. This hearing is another in an ongoing series of hearings that we are hosting to review the 2018 Farm Bill and prepare for the 2023 Farm Bill. We will receive stakeholder input on USDA's nutrition programs included in the farm bill other than SNAP, which includes the following food distribution programs: One, The Emergency Food Assistance Program, better known as TEFAP; two, the Commodity Supplemental Food Program; and three, the Food Distribution Program on Indian Reservations. And our nutrition incentives and food access programs, including the Gus Schumacher Nutrition Incentive Program, the Seniors Farmers' Market Nutrition Program, the Healthy Food Fi-

nancing Initiative, and Community Food Projects Competitive Grants Program. So, as you can see, we have a lot of ground to cover.

These critical anti-hunger nutrition programs work together alongside SNAP to tackle food insecurity from different angles and provide support to millions of Americans, with each also providing positive impacts for both farmers and ranchers, as well as our broader food system. For example, in Fiscal Year 2020, The Emergency Food Assistance Program, or TEFAP, provided 2.2 billion pounds of USDA foods to emergency food providers like food banks, who use that support to serve more than 60 million Americans, according to Feeding America, an excellent, excellent helping hand for our nation to feed America. The Seniors Farmers' Market Nutrition Program, which provides over 800,000 low-income seniors with coupons each year that they can exchange for fresh fruits, vegetables, herbs, and honey at our farmers' markets. And our newest Member, Ms. Kaptur, a fine Representative from Ohio, has been a strong proponent of this program for many years. Thank you, Ms. Kaptur.

And just last week, the Healthy Food Financing Initiative announced its latest round of grants and loans to entities that will offer healthy foods in communities without access to nearby grocery stores and food retailers. These awards will support 134 projects in rural areas, urban areas, and Tribal communities in 46 states and Territories, including several right in my own home State of Georgia. Because it is in Ellenwood, Georgia, which is now completely in my district thanks to the redrawing—I had it before, and now they are bringing it back to me, Ellenwood.

And the name of this organization is Atlanta Harvest, an urban farm that provides food to seven counties in the greater Atlanta region. They just received Healthy Food Financing Initiative funding, and I am very glad about that. This funding will expand their market square footage to increase their inventory and variety of foods sold, and they will be able to purchase a hybrid delivery food truck. And Atlanta Harvest is a great example of how our nutrition programs work in concert. And since 2018, they have partnered with Wholesome Wave Georgia, who happens to be a 2021 GusNIP grantee, and provides SNAP recipients a 100 percent match for fresh produce.

And that was a little bit of just some of the many fantastic programs that we will discuss today. I also have to acknowledge the incredible work that these programs and their grantees and administrators have done during this terrible COVID-19 pandemic. Despite incredible challenges faced, they responded quickly and with great flexibility to be able to continue serving those in need during a particularly difficult time, and we want to say thank you very much. I look forward to discussing these programs and reviewing their relevant provisions in the 2018 Farm Bill so that we can maintain and improve upon them as necessary for our 2023 Farm Bill.

So, thank you again to the Members and witnesses who are joining us today, as well as those who have tuned in and are listening or watching. And I look forward to hearing more today about how we can improve these important programs.

[The prepared statement of David Scott of Georgia follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning and welcome to today's hearing, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on Non-SNAP USDA Nutrition Programs*. This hearing is another in the ongoing series of hearings we are hosting to review the 2018 Farm Bill and prepare for the 2023 Farm Bill.

We will receive stakeholder input on USDA nutrition programs included in the farm bill—*other than* SNAP—which includes our food distribution programs: The Emergency Food Assistance Program (TEFAP), The Commodity Supplemental Food Program, and the Food Distribution Program on Indian Reservations.

And our *nutrition incentive* and *food access programs*, including: The Gus Schumacher Nutrition Incentive Program, The Seniors Farmers' Market Nutrition Program, The Healthy Food Financing Initiative, and Community Food Projects Competitive Grants Program.

So, as you can see, we have a lot of ground to cover!

These critical anti-hunger and nutrition incentive programs work together, alongside SNAP, to tackle food insecurity from different angles and provide support to millions of Americans, with each also providing positive impacts for farmers and ranchers and our broader food system.

For example, in Fiscal Year 2020, The Emergency Food Assistance Program—or TEFAP—provided 2.2 billion pounds of USDA Foods to emergency food providers, like food banks, who used that support to serve more than 60 million Americans, according to Feeding America.

The Seniors Farmers' Market Nutrition Program provides over 800,000 low-income seniors with coupons each year that they can exchange for fresh fruits, vegetables, herbs, and honey at farmers' markets. Our newest Member, Ms. Kaptur has been a strong proponent of this program.

And, just last week, the Healthy Food Financing Initiative announced its latest round of grants and loans to entities that will offer healthy foods in communities without access to nearby grocery stores and food retailers. These awards will support 134 projects in rural, urban, and Tribal communities in 46 states and Territories, including several in my own home state of Georgia.

In Ellenwood, Georgia—which is inside of my new Congressional District—Atlanta Harvest, an urban farm that provides food to seven counties in the greater-Atlanta region, just received Healthy Food Financing Initiative funding to expand their market's square footage, to increase their inventory and variety of food sold, and to purchase a hybrid delivery food truck.

And Atlanta Harvest is a great example of how our nutrition programs work in concert. Since 2018, they have partnered with Wholesome Wave Georgia, who happens to be a 2021 GusNIP grantee, to provide SNAP recipients 50 percent off fresh produce.

And that was a little bit on just *some* of the *many* fantastic programs we will discuss today.

I also have to acknowledge the incredible work that these programs and their grantees and administrators have done during the COVID-19 pandemic. Despite the incredible challenges faced, they responded quickly and with great flexibility to continue serving those in need during a particularly difficult time. Thank you.

I look forward to discussing these programs and reviewing their relevant provisions in the 2018 Farm Bill so we can maintain and improve upon them as necessary for the 2023 Farm Bill.

Thank you again to the Members and witnesses joining us today as well as those who have tuned in and are listening. I look forward to hearing more today about how we can improve these important programs.

With that, I'd now like to welcome the distinguished Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for any opening remarks he would like to give.

The CHAIRMAN. And so, with that, now, I would like to welcome our distinguished Ranking Member, my friend, the gentleman from Pennsylvania, Mr. Thompson, for any opening remarks that you would like to give.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Thank you, Mr. Chairman. Thank you, Mr. Chairman, and good morning to our witnesses, and thank you for sharing your time and expertise with us today.

First, I want to remind the Committee we are again battling record levels of inflation. Consumer prices rose 8.6 percent in the 12 months ending in May, climbing at the quickest pace since the Carter Administration. This Administration and my colleagues must rethink regulatory actions and spending proposals because to say our communities are suffering is an understatement. And obviously, we see that in the area that we are discussing today, which is the affordability of food when you look at the cost of groceries and individual food products have increased and escalated as a part of that.

The harsh reality makes today's hearing important but also a cautionary tale. Each of the programs being discussed today, including the Commodity Supplemental Food Program, The Emergency Food Assistance Program, and the Food Distribution Program on Indian Reservations, round out the nutrition safety net for individuals and communities in need. But it is no wonder participation rates are through the roof. Nutrition distribution incentive programs are costing billions to operate, and inflated prices are making it harder for providers to provide and recipients to receive. So, I do hope today delivers a realistic discussion on how to combat these excessive costs and ensure those in need have access.

But more spending and expanded eligibility are not necessarily the answer. Infusing the economy with newly printed money is a reckless plan. Instead, we need to evaluate how to grow our economy naturally through increased labor force participation, addressing our fractured supply chain, and boosting our domestic production, welcomed steps towards less need and reliance on Federal aid.

Today also presents the opportunity to discuss what is working and what is not in the statutes guiding each of these programs. And I remain troubled that our recent nutrition farm bill-related hearings that focus solely on the 2018 Farm Bill and more on where we can increase spending and expanding eligibility and programming. We know for a fact some of the bipartisan ideas that came to fruition in 2018 have cost too much, yielded too few results, or barely made a difference in people's lives. I think also it is imperative that we hear more about nutrition and health today.

The recently announced White House Conference on Food, Nutrition, Hunger, and Health advertises itself as an event to accelerate progress and drive significant change to end hunger, improve nutrition and physical activity, reduce diet-related disease, and close the disparities around them. On its face that mission appears praiseworthy. However, the hearsay surrounding the conference is leaving much to be desired.

And last, in areas like nutrition centers, what is being studied and learned related to health outcomes? Are we asking the right questions about their impact? And are the beneficiaries receiving the bulk of the funding or are we seeing funds tied up by organizations under the guise of, quote, "administration," end quote.

Thank you, Mr. Chairman, for calling this hearing. I look forward to the discussion. And again, I thank our witnesses for their testimony today. And with that, I yield back.

The CHAIRMAN. Thank you, Ranking Member.

And now the chair would request that other Members submit their opening statements for the record so that witnesses will be able to begin their testimony and to ensure that there is ample time for questions.

And right now, I would like to give a warm welcome to our first witness today, Mr. Kyle Waide, who is the President and Chief Executive Officer of the Atlanta Community Food Bank in our great State of Georgia. And let me just say, I have had a great relationship with this gentleman. We have worked together on many projects through feeding our wonderful people in Georgia and across the nation. And I want to also add that we have done a great project at Mundy's Mill High School, where we were able to provide COVID-19 vaccinations.

Our next witness today is Mr. Gary Besaw, who is the Director of the Menominee Tribal Department of Agriculture and Food Systems and also the Director of the Menominee Tribal Food Distribution Program from Keshena, Wisconsin. Thank you for coming.

Our third witness today is Dr. Jessie Gruner, the Director of Community Innovations at Pinnacle Prevention in Chandler, Arizona.

And our fourth witness today is Ms. Spencer Moss, who is the Executive Director of the West Virginia Food and Farm Coalition in Charleston, West Virginia.

And our fifth and final witness today is Mr. William Smittcamp, the President and Chief Executive Officer of the Wawona Frozen Foods in Clovis, California, who is testifying on behalf of the American Frozen Foods Institute.

I want to welcome all of you to our hearing today. And now we will proceed with your testimony. Mr. Waide, please begin when you are ready.

STATEMENT OF KYLE WAIDE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ATLANTA COMMUNITY FOOD BANK, ATLANTA GA

Mr. WAIDE. Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee, thank you for your invitation to testify today. My name is Kyle Waide. I am the CEO of the Atlanta Community Food Bank. We are a member of Feeding America, the national network of 200 member food banks that serve every county in the United States, distributing 7.5 billion pounds of food annually through a grassroots network of community-based feeding programs. Last year, my food bank in north Georgia provided 100 million pounds of food to 700,000 neighbors across 29 counties. Together, Feeding America food banks are uniquely capable of distributing emergency food safely, efficiently, equitably, and reliably to food-insecure families when and where they need it.

As we discuss the next farm bill, I want to deliver a simple message. Demand for food assistance is growing, and food banks need more Federal support to meet rising demand. We all know how the

pandemic dramatically increased food insecurity across the country. We met this crisis with an unprecedented Federal response, combined with an extraordinary expansion of food banks and other nonprofit feeding programs. Over time, more and more food-insecure families got back on their feet, and demand for food assistance declined. In recent months, however, rising prices for food, gas, and other basic needs, combined with the unwinding of many COVID recovery supports have increased pressure on families. Lines at food banks are growing again. And in my food bank, our distribution volume over the last few months has now risen again to 35 percent higher than where we were before COVID.

Meeting this demand is getting harder. Like every business in the country, our operating costs are skyrocketing due to rising wages, gas prices, and costs for maintaining and replacing equipment. Our costs for food acquisition have increased by 40 percent as we purchase more food at inflated prices to offset large declines in food commodities provided through Federal nutrition programs.

The Emergency Food Assistance Program, TEFAP, has provided critical support for food banks, especially during the pandemic. We would not have met the need for food assistance during the pandemic were it not for the massive investments in additional TEFAP spending authorized by Congress. This is particularly true in less populated areas of the country, where Federal commodities account for a much larger percentage of the food distributed by food banks.

But, looking ahead, we are concerned that reverting back to pre-pandemic levels of TEFAP spending in the next farm bill will leave us ill-prepared to meet the needs in our local communities. Food banks are anticipating a decline in Federal commodities next year of 40 percent or more. In addition, many TEFAP shipments right now are being canceled due to supply chain challenges and price increases.

To offset these reductions, food banks are purchasing more food. In Atlanta, we will spend more than \$15 million next year just to purchase food, which will account for more food than we expect to receive in TEFAP commodities. That is not a sustainable pattern for the vast majority of food banks.

We need your help to continue to meet the need for food assistance over the long-term. And specifically, we need more TEFAP. I encourage you to consider increasing the level of mandatory funding for TEFAP to \$450 million annually while increasing funding for TEFAP storage and distribution costs.

Alongside an increased investment in TEFAP, I also encourage you to consider expanding access to the Commodity Supplemental Food Program and to support enhancements to the SNAP program. I refer you to my written testimony for more detail on enhancements to CSFP and SNAP.

As you consider increasing funding for these programs, I also encourage you to consider what it takes to ensure this food is distributed safely and equitably in the communities that need it the most. Food insecurity continues to disproportionately impact communities of color and rural communities, both of which experience food insecurity rates that are twice as high as the national average. Getting food to these communities is often more challenging and more expensive. Here again, the nation's food banks are uniquely capable

of ensuring federally funded food resources reach the people in communities that need it the most.

We have developed the infrastructure and systems to store and move food safely and accountably, and, more importantly, we have built relationships and trust in our country's most vulnerable communities. In Atlanta, $\frac{2}{3}$ of the partners who work with us to distribute food are faith-based organizations, representing a wide variety of faiths and denominations across urban, suburban, and rural communities. Sixty percent of our partners serve majority minority communities, and half are led by BIPOC leaders. This is why our community turns to us in a crisis and it is why Congress and the USDA can trust us to ensure the food you provide us is reaching the people who need it the most.

I want to thank Chairman Scott for inviting me to testify. I look forward to working with the Committee to advance our next farm bill, and I am happy to answer your questions.

[The prepared statement of Mr. Waide follows:]

PREPARED STATEMENT OF KYLE WAIDE, PRESIDENT AND CHIEF EXECUTIVE OFFICER,
ATLANTA COMMUNITY FOOD BANK, ATLANTA GA

Dear Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee:

Thank you for the invitation to testify at today's hearing on the *2022 Review of the Farm Bill: Stakeholder Perspectives on Non-SNAP USDA Nutrition Programs*. My name is Kyle Waide, and I am the President and CEO of the Atlanta Community Food Bank, one of the largest food banks in the country. I am excited to share my perspective today on how to protect and improve Federal nutrition programs, specifically The Emergency Food Assistance Program (TEFAP) and the Commodity Supplemental Food Program (CSFP) to ensure individuals and families facing hunger can continue to put food on the table.

The Atlanta Community Food Bank is a member of the Feeding America food bank network. Feeding America is the largest hunger-relief organization in the United States with a network of more than 200 food banks, 21 statewide food bank associations, and more than 60,000 partner agencies, food pantries, and meal programs. Like our sister food banks across the country, the Atlanta Community Food Bank works to end hunger with the food, people, and big ideas required to ensure our neighbors have the nourishment they need to lead healthy and productive lives.

We work with a wide variety of retailers, farmers, restaurants, manufacturers, distributors, and Federal programs to secure donated and purchased essential groceries for people facing hunger in our service area. We distribute this food across 29 counties in metro Atlanta and north Georgia through a large, decentralized grassroots network of close to 700 community-based nonprofit partners, the majority of which are faith-based organizations. In our Fiscal Year 2021, we served more than 715,000 of our Georgia neighbors in need of food assistance, distributing more than 116 million pounds of food, the equivalent of nearly 100 million meals. In addition to managing a food supply chain, we offer other services that connect individuals and families to local providers offering services such as affordable housing options, shelters, rent and utility assistance, free to low-cost health services, job skills, nutrition education and food and clothing pantries.

The Atlanta Community Food Bank and the Feeding America food bank network are uniquely capable of working to reduce food insecurity as part of a robust combined government and community response. Through years of growing our infrastructure, building public-private partnerships, responding to crises, and driving innovation, we have built the capacity and the accountability systems to support ongoing large-scale food distribution, providing high-quality nutritious food safely, efficiently, equitably, and reliably to food-insecure families when and where they need it.

Current State of Food Insecurity

Prior to the pandemic, national food insecurity rates had reached their lowest levels in 20 years. After reaching a peak following the Great Recession, the food insecurity rate fell steadily as the economic recovery accelerated and we reached histori-

cally low levels of unemployment. Despite that progress, 38 million people, including nearly 12 million children are food-insecure in the United States in 2022. In Georgia, the food insecurity rate within the Atlanta Community Food Bank's 29 county service area is currently 12%.

The COVID-19 pandemic may be receding, but demand for food assistance is on the rise again. As we all know, the Federal response to the pandemic was unprecedented in scale and scope. Investments in nutrition assistance programs made an enormous difference in preventing much larger increases in hunger. Now, however, some of those expansions in program capacity and flexibility have already ended, and others, such as Supplemental Nutrition Assistance Program (SNAP) emergency allotments, will go away nationwide when the Public Health Emergency (PHE) declaration ends. Some states, including Georgia, have already chosen to end SNAP emergency allotments, leading to a projected average loss of \$82 a month in benefits for those enrolled. Many families are struggling to adjust to these changes, and rising costs are only increasing the challenges they face. These families are facing grocery prices that are ten percent higher this year, alongside the rising costs they face for other basic needs like gas, housing, and childcare. Nationally, the cost of meat, poultry, fish, and eggs has increased by 13%. Households that are low-income already spend about $\frac{1}{3}$ of their income on food. Even relatively small increases in food prices can destabilize budgets and force families to make impossible choices between food and other necessities. Increased food prices also mean that nutrition program benefits, like those received through SNAP, don't buy as much. To survive rising costs at the supermarket and reduced government assistance program benefits and access, many families are turning to food banks.

During the peak of the pandemic our food distribution volumes were 70 percent higher than pre-pandemic levels. An improving economic environment and critical public supports such as the investments in nutrition programs and the Child Tax Credit helped reduce demand for food assistance during the latter half of 2021, and our distribution volume declined as well. In recent months, however, the rising prices for food and other basic needs, combined with the cessation of COVID recovery supports, have put increasing pressure on low- and moderate-income families. Our distribution volumes are rising again, and over the past 2 months we distributed essentially the same volume of food as we did during April and May of 2020, nearly 35% higher than pre-COVID levels.

Alongside the increase in demand, our operating costs are increasing significantly. Fifty-five percent of Feeding America food banks have recently reported that food donations are down, and 57% report that United States Department of Agriculture (USDA) commodities including The Emergency Food Assistance Program (TEFAP) have declined significantly this year. To replace these sources of food, food banks have dramatically grown how much food they purchase. With food prices soaring, our costs for food acquisition have increased by nearly 40% to source the food we need to meet current levels of demand. Outside of food acquisition costs, food banks are also paying more for everything else from fuel to vehicle maintenance. And like everyone else, we are paying more in wages and benefits to keep up with the highly competitive labor market. In Atlanta, this means our costs per meal distributed have risen by 22%.

Food insecurity continues to disproportionately impact Black, Latino, and Native American/Alaskan communities, which experience rates of food insecurity that are more than double the rates of food insecurity among their white counterparts. Similarly, many rural communities continue to experience higher levels of hunger, with food insecurity rates exceeding 20% in many rural Census tracts across Georgia. At the Atlanta Community Food Bank, more than 70% of the people receiving food through our network identify as Black or Latino, with demand growing significantly in a number of counties and communities with highly concentrated BIPOC populations. And we distributed close to 30 million pounds of food in the ex-urban and rural counties outside metro Atlanta over the past twelve months.

The resiliency, diversity and breadth of our partner network makes our work possible and enables us to continue adapting to the rapidly changing environment in which we operate. Food banks are not stand-alone organizations, working in isolation from a single location to deliver services. We are truly defined by and best understood as a widely distributed network of hyper-local community-based organizations, supported by a high-capacity centralized engine for acquiring and distributing food and other resources. We are the churches, soup kitchens, social-service programs, shelters, and community centers where food-insecure families access the food we source through our central warehouses. In Atlanta, $\frac{2}{3}$ of these partners are faith-based organizations, representing a wide array of faiths and denominations across urban, suburban, and rural communities. Approximately 60% serve majority BIPOC communities, and half are led by BIPOC leaders. Two-thirds of our staff,

more than 60% of our leadership team, and 44% of our board of directors identify as racially diverse. We represent, include, and engage all aspects of our community, which has helped us build a unique level of trust and connectivity in all kinds of local communities across our region, including and especially in our most vulnerable populations. It is also why the community turns to us during crisis, enabling us to work closely with schools, government leaders, business groups and others to support a variety of emergency food distributions across our region, including the events we supported with Chairman Scott and a variety of community partners over the past several years.

In addition to our community-based distribution network, our work also depends on broad community support and deep relationships across food and agriculture industries. We are supported by 20,000 volunteers and 60,000 financial donors, who help our team of 180 food bankers pack food boxes, pull orders, manage food distributions, and address other client needs. We source donated food from a long list of local, regional, and national food manufacturers and distributors, which includes collecting donated perishable food items from more than 500 retail grocery store locations in north Georgia. We work closely with farmers to collect and distribute millions of pounds of surplus produce, dairy and other agricultural products that otherwise would go to waste. These relationships include large, multi-generational farms, as well as smaller, local farms, including socially disadvantaged BIPOC growers and urban farmers.

This deep connectivity across our community, with grassroots organizations, large corporations, and everything in between, enables us to get food and other resources to the people and communities who need it, when and where they need it. And against the backdrop of growing demand, a tightening food supply and increasing costs, food banks are working as hard as ever with our partners to feed families in need. We are committed to continue growing our capacity to acquire and distribute more food to respond to the growing need for food assistance. But we cannot do our work alone. We need help, and in particular we need access to more of the high-quality food commodities provided by USDA through programs authorized by the farm bill. The people and communities we serve need more food. The 2023 Farm Bill provides an opportunity for Congress to help continue to reduce food insecurity and address racial equity in food insecurity by increasing investments in Federal nutrition programs including The Supplemental Nutrition Assistance Program (SNAP), The Emergency Food Assistance Program (TEFAP) and Commodity Supplemental Food Program (CSFP).

Role of Federal Support in Addressing Food Insecurity

The support provided by and through a variety of Federal nutrition programs has been critical to helping food banks do our work, starting with two programs that provide the backbone of nutritious food we distribute. The Emergency Food Assistance Program (TEFAP) is a means tested Federal program that provides nutritious food to low-income individuals through food banks and other charitable organizations nationwide, while supporting U.S. grown commodities. The program provides critical support, helping us ensure a nutritious balance of food is distributed to families in need by allowing us to combine TEFAP with our other sources of food. As the Committee already knows, Congress authorized more than \$1 billion in additional TEFAP spending through a number of COVID recovery bills in 2020, dramatically increasing our access to food resources during the crisis. USDA also provided short term assistance through an additional allocation of food purchases in 2020 and 2021, including support for states to partner with food banks and local growers to connect local food with people in need.

This made a critical difference for us in north Georgia. In our fiscal 2021 year, we distributed approximately 40 million pounds of food commodities provided through TEFAP and other special USDA programs (*e.g.*, the Coronavirus Food Assistance Program, commonly known as the “Farmers to Families Food Box Program”). This represents more than $\frac{1}{3}$ of our total volume during that critical year. For food banks serving less populated areas of the country, Federal commodities accounted for an even larger percentage of their food distribution volume. To state the obvious, we would not have met the need in our community were it not for these extraordinary investments in TEFAP spending during the pandemic.

But looking ahead, we are concerned that simply reverting back to pre-pandemic levels of TEFAP funding will be insufficient to respond to the needs of our communities. Food banks across the country are anticipating a decline in Federal commodities of 40% or more. At my food bank, we are planning to receive 14 million pounds of TEFAP food in fiscal 2023, representing only $\frac{1}{3}$ of the food we received through TEFAP and CFAP during 2021 *and* a reduction of approximately 1 million pounds in food compared to what we received pre-COVID. And this does not account for the

growing number of TEFAP shipments that are being canceled due to complications in the food supply chain—for us in Atlanta, approximately 13% of the TEFAP shipments we ordered this year have been canceled and we believe this number is higher in many other parts of the country. We expect to spend nearly \$15 million next year on purchasing food to offset this reduction, and we will source 25% more food next year through purchasing (17.5 million pounds) than we expect to receive through TEFAP (14 million pounds). We are concerned that this pattern will not be sustainable over the long-term.

Food banks and other charitable feeding organizations have demonstrated the critical role they play in providing immediate food assistance as well as in augmenting gaps in broader food assistance programs. Congress should include additional mandatory funding for TEFAP food in the next farm bill in recognition of the sustained high need for food assistance nationwide. Specifically, TEFAP mandatory funding should be authorized to \$450 million per year in the next farm bill and TEFAP Storage and Distribution Funds should increase to reflect the actual distribution costs needed to \$200 million per year. TEFAP Infrastructure Grants should remain at \$15 million per year.

There are 5.2 million seniors facing hunger in the United States. The Commodity Supplemental Food Program (CSFP) works to improve the health of low-income persons at least 60 years of age by supplementing their diets with nutritious USDA Foods. The program itself serves 619,000 seniors with incomes at or below 130% of the Federal Poverty Line (approximately \$15,301 for a senior living alone) and the Feeding America network serves more than ½ million seniors (age 60 and older) through the CSFP program. More than half of Feeding America network food banks participate in CSFP, the most extensive hunger-relief program for seniors operated across our network. In Atlanta, we distribute roughly 5,000 CSFP boxes each month to low-income seniors, connecting them with high-quality nutritious food they would not otherwise be able to access.

While CSFP serves more than ½ million seniors across the Feeding America network, the population of food-insecure seniors is growing and will continue to grow over the next decade. To expand access to this program, Congress should increase the Federal Poverty Level for eligibility determination above 130% to reduce the burden of reporting requirements as part of the program. We also recommend increasing the length of time between recertification periods to ensure more seniors are able to participate in this important Federal program, instituting a self-declaration of needs to determine CSFP eligibility, and tailoring CSFP food packaging to assist with meeting dietary and medical needs of seniors. Furthermore, Congress should help us more effectively meet the food needs of seniors across the nation by adding culturally appropriate nutritious food options.

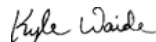
In addition to the food provided to food banks and other nonprofits by USDA, support for food assistance through other nutrition programs has played a critical role in response to this crisis. Our food-insecure neighbors rely heavily on an array of Federal programs—SNAP, school lunches, Pandemic-EBT, WIC, senior meals—to meet their families' needs. Millions of Americans would not have the food they need to survive without the continued strong support of Federal nutrition programs.

Conclusion

Recovering from COVID will continue to be a challenge for all of us. Ongoing Federal investment and support will be necessary to accelerate and sustain our recovery. This is even more true for food-insecure families, whose recovery will be disproportionately harder. I urge the Committee, Congress, and the Administration to take the lessons learned from COVID and use that insight to create a strong farm bill that puts people facing hunger at the center. Purchase more food through TEFAP and other USDA programs. Leverage high-capacity partners like the nation's food banks to move this food safely, efficiently, and equitably to the people and communities who need it. Flood the zone with access to food. Doing so will help our families, communities and our country recover faster.

I want to again thank Chairman Scott for inviting me to testify. We celebrate the Committee's interest in ensuring all our neighbors have the food they need. I look forward to working with you on that important goal and to answering your questions.

Sincerely,



KYLE WAIDE,
President and CEO,
Atlanta Community Food Bank.

The CHAIRMAN. Thank you, Mr. Waide.

And now, Mr. Besaw, please begin when you are ready. Mr. Besaw, you may want to come a little closer to your microphone. We are not hearing you clearly.

Mr. BESAW. Can you hear me now?

The CHAIRMAN. Yes. It is a little muffled. Just get as close as you can, and we will make do. Go right ahead.

STATEMENT OF GARY J. BESAW, DIRECTOR, MENOMINEE TRIBAL DEPARTMENT OF AGRICULTURE AND FOOD SYSTEMS AND MENOMINEE TRIBAL FOOD DISTRIBUTION PROGRAM, KESHENA, WI

Mr. BESAW. *Anāmāhkatowak, na netānawemākanak wāwānen, etōwak* (Greetings my Relatives, Thank you I say) for allowing me to be here today to speak regarding the Food Distribution Program on Indian Reservations. Part of the comments I have heard here today about the increased funding and costs are important to Menominee and important to the Tribes. And part of that response can be that much of what is in the farm bill or would be in the farm bill can be redirected to allow Tribes to have that ability to take that same funding that may be going to them, or that may be through the farm bill and administered by AMS, to now have Tribes have that authority to have control through self-governance processes.

There are several things within the farm bill that Tribes have been working through a Tribal leaders consultation work group, and these are some of the concerns. One I will speak to is the 638 self-determination contracting.* Another is working and having more assistance from the Agricultural Marketing Service in working to develop that point of contact and really work to allow Tribes to walk through the process to become an eligible producer in the system.

We have concerns on indigenous representation in the FNS positions. Where that is available, Tribes ask that we have positions filled by Tribal members or by others who have received the training and education that they would need to be able to support Tribes.

I will talk about one of the programs that we are in; using the FDPPIR's Self-Determination Demonstration Project, Menominee has been able to use self-determination to replace and supplant some of the 100 products that are available as commodities or products for our food distribution clients. What this does is allows Tribes that want to participate in the 638 contracting process to now be able to come in to contract with indigenous producers to use that same funding that AMS may have used to purchase product from wherever across the country and bring that to our food distribution—to our stores, our warehouses on reservation. We want to be able to shorten that food chain to build a more resilient food system. We want to look at providing jobs for our economy, for our Tribal economies.

* **Editor's note:** 638 refers to Pub. L. 93-638, Indian Self-Determination and Education Assistance Act.

So, the 638 contracting allows Tribes—this was put into the 2018 Farm Bill as a pilot project—it allows us to be that purchaser for certain foods grown indigenously, grown by Tribes to be able to purchase that food and to supplant or replace those certain foods. And we have done that by replacing and purchasing, through that 638 process wild rice. We have replaced ground beef, ground bison, and beef roasts. We have also replaced apples with apples we have bought from indigenous producers and smoked fish, lake trout filets, white fish filets, and walleye from indigenous producers.

So, we are trying to grow our economies. And this is a good way, as we have heard before, where we are not necessarily trying to ask for money, too much additional money, but we would be replacing that authority where we do the actual ask, and we actually purchase. We know what is best for our Tribal members.

[The prepared statement of Mr. Besaw follows:]

PREPARED STATEMENT OF GARY J. BESAW, DIRECTOR, MENOMINEE TRIBAL DEPARTMENT OF AGRICULTURE AND FOOD SYSTEMS AND MENOMINEE TRIBAL FOOD DISTRIBUTION PROGRAM, KESHENA, WI

Introduction—About Menominee & Oneida

Beginning in 2021, the Menominee Indian Tribe of Wisconsin and the Oneida Nation partnered together to participate in the FDPIR Self-Determination Demonstration Project. Through this project, we are replacing USDA buffalo, ground beef, beef roast, and apples with Oneida Nation buffalo, ground beef, beef roast, and apples. We are also replacing USDA wild rice with wild rice from Spirit Lake and replacing USDA fish with fish from Red Cliff.

By participating in this demonstration project, we are:

- Expanding Tribal sovereignty
- Providing better, more nutritious foods to our community
- Expanding cultural and historical knowledge through the use of traditional foods
- Building capacity amongst our Tribal staff, farmers, indigenous vendors, food producers, and our government as well as educate the USDA on our food systems and the challenges our communities face with access to nutritious, locally-grown, and traditional foods.
- Providing a source of economic benefits to the Tribes and Tribal vendors
- Expanding Self Determination and hopefully Self Governance into the USDA.

How we want to see this Demonstration Project evolve

While we are happy to participate in this Demonstration Project, we believe more can be done to enhance Tribal flexibility in FDPIR and USDA:

- We would like to see this Demonstration Project become permanent and expanded to include Self Governance authority. Although we appreciate the opportunity to determine what foods to buy and incorporate into the FDPIR food packages, we think Tribal authority should go beyond this by providing Tribes with recurring, base funding and the authority to redesign the program in a way that meets each Tribe's unique needs and Tribal priorities.
- This flexibility is especially important for FDPIR, because our local food products are so impacted by seasonality and weather. This demonstration project required us to predict specific food quantities months or years ahead of the actual growing season, which is challenging. For example, In May 2021, Wisconsin suffered unusual weather and experienced three hard frosts. This ended up damaging much of the apples in our region and the Orchard lost over half of their apple production in 2021. If we had Self-Governance authority, we would be able to handle unforeseen issues without having to obtain Federal approval and all the administrative work that goes along with it to substitute products or make budget modifications.
 - Increased flexibility would also allow us to respond to the unique needs and demands of our community. So far, we have received a lot of positive feedback from our clientele. Many of our customers have said how they are enjoying

the quality of the foods being provided, especially the black Angus beef that comes from the Oneida Nation Farm. One Elder customer said that she does not have to use much seasoning when preparing the meat because the quality is so much better. The beef and buffalo are in high demand and efforts are being made to provide more beef roasts for next year. Under Self-Governance, we would have been able to reallocate funds from other products, such as fish products, to the beef and buffalo products without further approval from the USDA. Under the current demonstration project, we had to make a modification of our food list in order to reallocate funds to meet the needs of our communities.

Closing

Thank you for the opportunity to provide our perspective on the FDPIR Demonstration Project. We are eager to work with you to make this demonstration project permanent and expand Self-Governance in FDPIR and the USDA.

The CHAIRMAN. Well, thank you very much, Mr. Besaw.
And now, Dr. Gruner, please begin when you are ready.

STATEMENT OF JESSIE G. GRUNER, PH.D., RDN, DIRECTOR OF COMMUNITY INNOVATIONS, PINNACLE PREVENTION, CHANDLER, AZ

Dr. GRUNER. Thank you, Chairman Scott and Members of the Committee. I am honored to have the opportunity to provide testimony today. My name is Jessie Gruner. I am the Director of Community Innovations at Pinnacle Prevention, an Arizona-based nonprofit. We have been administering USDA nutrition programs statewide in Arizona for over 5 years. Today, I want to share with you our experiences and recommendations around GusNIP, the Senior Farmers' Market Nutrition Program, and the Community Food Projects Competitive Grants Program.

I would like to start off with GusNIP first, or the SNAP incentive program. In Arizona, we offer our Double Food Bucks Program at multiple outlets, including farmers' markets, CSAs, mobile markets, corner stores, as well as grocery stores. We started this program with FINI funding in 2016, with only six farmers' market sites. Six years later, we are now on our third round of GusNIP funding from USDA, and we have grown our Double Up Program to over 75 locations.

From our experience, we want to share the value and importance of being able to have an adaptable program model that we can tailor based on the needs of our diverse communities, including urban, rural, and indigenous. The ability to tailor the incentive program has allowed us to spread across the state, particularly in areas that don't have access to a farmers' market.

In our model, we prioritize locally grown produce. This prioritization has had a tremendous economic impact with small producers and as increased local spending on these products by more than ten-fold at our Double Up sites. Not only are families taking home more healthy, seasonal, local food, this program has become a consistent, reliable source of revenue for local farmers.

We did not get to where we are today alone. Thanks to collaborations with other states and strong technical assistance, we were able to find new and innovative solutions and had an abundance of resources available for us to use. The 2018 Farm Bill created a national Nutrition Incentive Program Training Technical Assistance Evaluation and Information Center, known as the Nutrition Incentive Hub. Today, we would like to voice our support for ensur-

ing current farm bill efforts continue to include technical support and assistance, which is critical for implementing and evaluating nutrition incentive programs.

The program is currently designed with a dollar-for-dollar match requirement. While in Arizona we were successful in securing state-match funding, the current match structure inhibits our ability to expand our program, particularly in the grocery sector, which has a much higher SNAP volume and utilization rate. An alternative match structure would allow us to truly meet the needs of our communities.

Next, I would like to talk about the Senior Farmers' Market Nutrition Program, which provides low-income seniors with coupons that can be exchanged for locally grown produce at farmers' markets, roadside stands, and CSA programs. This is a tiny but mighty program. It is so much more than just food and can be part of the solution for reducing senior isolation. In some of our senior housing centers, our program was the only source of fresh food during the pandemic. In one of our rural mountain communities, a low-income housing site had a bus that would typically bring the seniors to the farmers' market to spend their coupons.

And during the pandemic, in order to protect their safety, they weren't able to bring seniors to the market, and this was really challenging for our seniors. Luckily, the Senior Farmers' Market Nutrition Program allows up to 50 percent of the funds to be used on bulk food purchases. This flexibility allowed us to have local produce delivered to their housing centers. We also had kids send in pictures that they drew to be included in their produce bags. And it was really a beautiful way to bring connection to seniors during a really isolating time.

We know that isolation was exacerbated by the COVID-19 pandemic, but isolation both preceded the pandemic and will continue to be a challenge seniors face. Because this program is something that seniors look forward to, a one-time benefit is not enough to meet the need and maximize the program's potential benefits. Increasing the maximum amount seniors receive annually would allow more flexibility in the program's structure and provide seniors more touch-points with their communities.

We also desperately need an investment in the administrative allocation for this program. Administrative costs are capped at ten percent, which means the amount of dollars that can be used for personnel time is really limited, making it hard to reach the communities that need the support and assistance the most, especially in our rural areas.

Finally, I would like to briefly mention the Community Food Projects Competitive Grants Program. We see this program as the low-hanging fruit that helps to build capacity for our community organization and helps producers to be able to scale up for larger programs and projects. It helps organizations test innovation at a small regional level. If we want to be able to meet the challenges that are facing the future of our local, regional, and national food systems, we have to provide space and resources for idea incubation and continue to center our small community food projects and socially disadvantaged producers. In many cases, this program is

farmers' first introduction to USDA programs. As one of the lowest entry points we see an opportunity to make this—

[The prepared statement of Dr. Gruner follows:]

PREPARED STATEMENT OF JESSIE G. GRUNER, PH.D., RDN, DIRECTOR OF COMMUNITY INNOVATIONS, PINNACLE PREVENTION, CHANDLER, AZ

Introduction

Thank you, Chairman Scott and Members of the Committee. I am honored to have the opportunity to provide testimony on non-SNAP USDA Nutrition Programs. My name is Jessie Gruner, I am the Director of Community Innovations at Pinnacle Prevention, an Arizona-based nonprofit dedicated to cultivating a just food system and opportunities for joyful movement.

We have been administering USDA nutrition programs statewide in Arizona for over 5 years. Today, I want to share with you our experiences and recommendations around GusNIP, the Senior Farmers Market Nutrition Program, and the Community Food Projects Competitive Grants Program.

GusNIP

I would like to start off with GusNIP, or the SNAP incentive program. Here in Arizona, we offer our nutrition incentive program, or as we brand it Double Up Food Bucks Arizona, at multiple outlets, including farmers['] markets, Community Supported Agriculture (CSA) programs, mobile markets, corner stores, as well as grocery stores. We started this program with FINI funding in 2016 with only six farmers['] market sites. Six years later, we are now in our third round of GusNIP funding from USDA and we have grown our Double Up program to over 75 locations.

From our experience we want to share the value and importance of being able to have an adaptable program model that we can tailor based on the needs of our diverse communities, including urban, rural, and indigenous. The ability to tailor the incentive program has allowed us to spread across the state, particularly in areas that do not have access to a farmers' market.

Because of the success of the program, we were able to achieve a state-wide policy win securing recurring program investment from the state's general fund with strong bipartisan support, which shows how much people love and believe in this program.

In our model, we prioritize locally-grown produce. This prioritization has had a tremendous economic impact with small producers and has increased local spending on these products by more than ten-fold at our Double Up sites. Not only are families taking home more healthy, seasonal, local food, this program has become a consistent, reliable source of revenue for local farmers, some of whom take home half of their daily market sales from Double Up Food Bucks.

We did not get to where we are today alone. Thanks to collaborations with other states and strong technical assistance, we were able to find new and innovative solutions and had an abundance of resources available for us to use. The 2018 Farm Bill created a national Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information center, known as the Nutrition Incentive Hub. Today we would like to voice our support for ensuring current farm bill efforts continue to include technical support and assistance, which is critical for implementing and evaluating nutrition incentive programs.

The program is currently designed with a dollar-for-dollar match requirement. While in Arizona we were successful in securing state match funding, the current match structure inhibits our ability to expand our program, particularly in the grocery sector which has a much higher SNAP volume and utilization rate. An alternative match structure would allow us to truly meet the needs of our communities, especially in places where individuals must travel between 50 and 100 miles to access a grocery store. We ask the Committee to consider a lower or percentage-based approach to match or removing this component.

Finally, we know that USDA is making tremendous strides to increase access to online SNAP for small vendors. We want to ensure that these efforts continue. The pandemic has resulted in new innovations in online and grocer delivery models, and we would like nutrition incentive models to be competitive in this space. We need more investment and flexibility to make this happen, especially for farmers and small business operations. To keep pace with efforts in modernization, we need to be thinking 10–20 years down the road with funding and support provided for the integration of GusNIP programs into SNAP EBT processing technologies.

Senior Farmers['] Market Nutrition Program

Next, I would like to talk about the Senior Farmers['] Market Nutrition Program, which provides low-income seniors with coupons that can be exchanged for locally-grown produce at farmers' markets, roadside stands, and CSA programs. The Senior Farmers['] Market Nutrition Program is a tiny, but mighty program. It is so much more than just food and can be part of the solution for reducing senior isolation. While the program provides nourishment for seniors and an additional source of revenue for small food producers, it is also a connection point for seniors. Food is the way that seniors are connecting with each other. Through this program they get to connect with the farmers, they get to see their neighbors, and they get to interact with their communities.

In some of our senior housing centers, our program was the only source for fresh food during the pandemic. In one of our rural mountain communities, a low-income housing site had a bus that would typically bring the seniors to the farmers['] market to spend their coupons. During the pandemic, in order to protect their safety, they weren't able to bring the seniors to the market. And seniors were really mourning that loss. Luckily, the Senior Farmers['] Market Program allows up to 50% of the funds to be used on CSAs or bulk food purchases. This flexibility allowed us to take produce from producers at the farmers['] market to the seniors when they couldn't leave their homes. We also had kids send in pictures they drew to include in the produce bags, and it was a beautiful way to bring connection to seniors during a really isolating time. We know that isolation was exacerbated by COVID-19, but isolation both preceded the pandemic and will continue to be a challenge seniors face.

Because this program is something that seniors look forward to, a one-time benefit is not enough to meet the need and maximize the program's potential benefits. Increasing the maximum amount seniors receive annually would allow more flexibility in program structure, such as a monthly benefit during the market season. For example, seniors could receive a \$100 benefit broken down over a monthly period across the market season. More touch-points can help build relationships between seniors and farmers, and strong customer relationships often lead to increased food literacy, understanding of local availability, and better access to community resources.

We also desperately need an investment in the administrative allocation for this program. Administrative costs are capped at ten percent, which means the amount of dollars that can be used for personnel time is really limited, making it hard to reach the communities that need the most support and assistance, especially in rural areas. Additional flexibility and investment in administrative dollars would help meet seniors where they are at and would result in a greater ability to provide equitable access to the program.

One final point, we recognize that WIC FMNP is the sister program to SFMNP and falls under Child Nutrition Reauthorization. We would like to see the same flexibility offered under farm bill to be offered for WIC FMNP, including bulk purchasing and CSA purchasing

Community Food Projects Competitive Grants Program

Finally, I would like to briefly mention the Community Food Projects Competitive Grants Program. While we have not been the direct recipients of a Community Food Project, we work with smaller food producers to help them submit proposals for CFPs. We see community food projects as the low-hanging fruit that helps to build capacity for the really small community organizations and producers to be able to apply for larger programs and projects, such as building their capacity to scale up to apply for GusNIP programs. It helps organizations test innovation at a smaller regional level. If we want to be able to meet the challenges that are facing the future of our local, regional, and national food systems, we have to provide space and resources for idea incubation and continue to center small community food projects and socially disadvantaged producers.

In many cases, the Community Food Projects Competitive Grants Program is farmer's and organization's first introduction to USDA programs. As one of the lowest entry points, we see an opportunity to make this program as easy as possible for applicants. Providing strong technical assistance, simplifying the application process and reporting requirements, and removing or reducing the match requirement would help streamline entry for farmers and organizations and make it easier for them to equitably participate.

Closing

I would like to conclude my statement by saying that our participation in these incredibly important programs has allowed us to be responsive to food system needs

in unprecedented ways and times here in Arizona. It's allowed us to be more adaptive in linking and leveraging multiple efforts across USDA as a whole to benefit farmers and provide nutrition security to families. Thank you for the time to share our experiences with you today.

The CHAIRMAN. Yes, thank you, Dr. Gruner. If you could wrap up for a moment there, your time has expired. But thank you.

Ms. Moss, please begin where you are ready.

**STATEMENT OF SPENCER C. MOSS, EXECUTIVE DIRECTOR,
WEST VIRGINIA FOOD AND FARM COALITION, INC.,
CHARLESTON, WV**

Ms. MOSS. Thank you. Good morning and thank you for having me here today. My name is Spencer Moss. I am the Executive Director of the West Virginia Food and Farm Coalition. We are a non-profit organization. And since we work at the intersection of farm viability and food access, we take advantage of Federal grant programs that allow us to pull resources into our rural communities.

Today, I will briefly discuss two programs that we have utilized, even though I could also speak to Senior Farmers' Market Nutrition Program, Community Food Projects, Farmers' Market and Local Food Promotion Programs as well. I am speaking to two programs that are nutrition-based but also have fantastic economic development outcomes. And finally, I will make three brief recommendations to make Federal grant programs more accessible.

So first, the Healthy Food Financing Initiative—the goal of this program is to improve food security in low-access communities through the establishment of new retail facilities, aggregation distribution hubs, and programming such as delivery programs. In 2019, we received one of these grants for \$215,400. And, with this grant, we helped establish two brick-and-mortar stores in downtown areas, and five corner store kiosks in existing businesses in rural Pocahontas County, West Virginia.

Now this is a story of improved nutrition, but it is also a story of economic development. On average, these brick-and-mortars have grossed \$609,000 annually, and employ 4.5 full-time and 5.5 part-time staff. And our work did not stop with the end of that grant. As a direct result of that grant, we established the West Virginia Rural Grocer Network where we provide valuable access to technical assistance and training to nascent or rural grocers. Most are just people who are stepping up to feed their communities and are leaving careers in the trades or in education. We also provide access to capital to purchase things like refrigeration equipment.

The second program I am going to talk about briefly was that Gus Schumacher Nutrition Incentive Program, or GusNIP. We received FINI funds in 2018 to pilot a program that we would eventually call SNAP Stretch. And in 2020 and 2021, we received the GusNIP award and a COVID response supplemental award.

So, SNAP Stretch doubles and triples SNAP EBT dollars—aka, formerly food stamps—at farmers' markets, on-farm stands, mobile markets, CSAs, and a growing number of local retailers. Can you tell I have said that a few times? So if a SNAP user comes to the market and they say I want to spend \$10 of my SNAP, they are going to get \$10 in market scrip to spend on any SNAP-eligible item. They are also going to get \$10 in SNAP Stretch scrip to

spend on fruits and vegetables. If they are a senior or if they have a child with them, they are going to get an extra \$10.

This is another program that certainly improves nutrition as it stretches the food budgets of low-income SNAP recipients, but it is also a major economic benefit to our communities, capturing both Federal food assistance dollars, Federal grant funds, and philanthropic funds. This program has grown each year since 2018 and in 2021, with the help of the folks behind me, we helped 35,000 West Virginians access this program, putting \$1 million into the hands of our farmers and local businesses.

Now, with my remaining time, I want to briefly talk on some recommendations. Matching requirements: In theory, grant-matching requirements show that there is some community investment in the program. In reality, matching requirements disadvantage rural communities, low-income communities, communities of color, and small nonprofit organizations. Ninety-one out of 100 of the most disadvantaged communities in this country are rural, and only five to seven percent of philanthropic funds come into rural communities. So, thereby, there is less money available for rural communities to access which is needed to access these Federal funds.

Number two, requiring grants to be reimbursable: The practice of reimbursable grants disadvantages smaller organizations and smaller communities that do not have the cash flow. To run a grant, you spend the money first, wait 4 weeks to 4 months to receive a reimbursement. It can oftentimes completely lock out communities from accessing these Federal funds.

And last, programs need more funding. Many of these Federal programs have not received the caps in what community groups can apply for in many years. So what I could do with \$500,000 in 2016, when I received my first Farmers' Market Promotion Program grant, *versus* what I can do today are very different, given the conversation we have already had about inflation. And yet, as grantees, we are increasingly expected to be more innovative, dig deeper in communities, have more partners, have more stakeholders, and affect more community change. But those dollars don't go as far, even though we are very happy to meet all of those expectations.

And with that, I am open for questions as well.

[The prepared statement of Ms. Moss follows:]

PREPARED STATEMENT OF SPENCER C. MOSS, EXECUTIVE DIRECTOR, WEST VIRGINIA FOOD AND FARM COALITION, INC., CHARLESTON, WV

The West Virginia Food and Farm Coalition was founded in 2010 and its mission is to build the West Virginia food and agriculture system in a way that provides viable incomes for farmers and local food businesses and ensures all residents have access to locally produced food. With this in mind, the Coalition is always trying to marry economic development and advancement of the agricultural sector with food access/food security for West Virginia's communities.

The following testimony will detail the Coalition's successes in implementation of several USDA grant programs that are either designed to increase nutrition and food security or increase economic development in the agricultural sectors. Through the Coalition's execution, we have been able to excel in both areas, further proving that nutrition programs are good for both the economy and the future of food access and security. Additionally, this testimony will explain how these grant programs have given wings to further programing at the community-organization level and allowed for the programs to layer together for maxim efficacy.

Last, this testimony will make recommendations regarding these grant programs for ways that they can be more efficient and more equitable in low-income, low-resources, rural, and/or communities of color.

About Non-SNAP Nutrition Incentive Programs

- USDA/NIFA Gus Schumacher Nutrition Incentive Program (GusNIP) (formally the Food Insecurity Nutrition Incentive FINI program)—provides incentives to income-eligible consumers to increase the purchase of fruits and vegetables and prescriptions for fresh fruits and vegetables (Prescription Produce program).
- USDA/RD Healthy Food Financing Initiative (HFFI)—aims to improve access to healthy foods in underserved areas, to create and preserve quality jobs, and to revitalize low-income communities. The program aims to build a more equitable food system that supports the health and economic vibrancy of all Americans.
- USDA/AMS Farmers^['] Market/Local Food Promotion Program (FMLFPP)—are two grant programs under the same heading. The Farmers^['] Market Promotional Program funds projects that develop, coordinate and expand direct producer-to-consumer markets to help increase access to and availability of locally and regionally produced agricultural products by developing, coordinating, expanding, and providing outreach, training, and technical assistance to domestic farmers^['] markets, roadside stands, community-supported agriculture programs, agritourism activities, online sales or other direct producer-to-consumer. The Local Foods Promotional Program funds projects that develop, coordinate and expand local and regional food business enterprises that engage as intermediaries in indirect producer to consumer marketing to help increase access to and availability of locally and regionally produced agricultural products.
- USDA/FNS Farm-To-School (F2S)—Farm-to-School programming can take on many forms including introducing garden education to youth, developing youth entrepreneurs, building youth farms, conducting educational youth-focused marketing, and developing pathways to get more locally sourced produce in local schools.

Gus Schumacher Nutrition Incentive Program (GusNIP) Became SNAP Stretch: How it Was Implemented in West Virginia

First funded by a USDA/NIFA FINI grant in 2018 then a 2020 USDA/NIFA GusNIP grant, and a supplemental USDA/NIFA GusNIP COVID Response and Recovery award in 2021, the SNAP Stretch program is a triple-bottom-line win for communities! SNAP Stretch benefits low-income West Virginia residents and farmers by *doubling and tripling SNAP/EBT purchases* for fruits and vegetables at farmers' markets, on-farm stands, mobile markets, Community Supported Agriculture Programs (CSAs), and local food retailers. SNAP Stretch incentivizes purchases of fruits and vegetables from local markets/farmers and helps overcome three key food access issues seen in rural communities:

1. *Many rural communities lack access to grocery stores where fresh produce is available.* "Dollar stores" litter rural landscapes and these stores often do not offer fresh produce. However, mobile and farmers^['] markets offer an endless supply of fresh fruits and vegetables during 6 months of the year providing valuable access to rural community members
2. *Many low-income folks, especially seniors, lack transportation to grocery stores that are outside of the community.* There are dozens of West Virginian communities that require residents to travel 45 minutes or more to access grocery stores. Mobile markets and farmers^['] markets are typically located in the middle of communities, helping residents overcome transportation barriers. In addition, as a result of big box grocery stores exiting rural communities, there has been an influx of locally-owned small grocery retailers beginning to establish in West Virginia. These retailers are located in the center of rural communities and are willing to participate in programs like SNAP Stretch in order to boost their sales, benefit local farmers, and fully engage their community.
3. *Often it is not financially feasible for families to purchase fruits and vegetables as they are not shelf stable.* However, double and tripling SNAP dollars makes market shopping thrifty and more financially feasible for cash-strapped families. There are countless anecdotal stories of the SNAP Stretch program helping families, however, there is one story of a family with four-children and they were weekly market shoppers. The mother said on multiple occasions that SNAP Stretch "financially enabled her to feed her children fresh fruits and vegetables."

How it Works

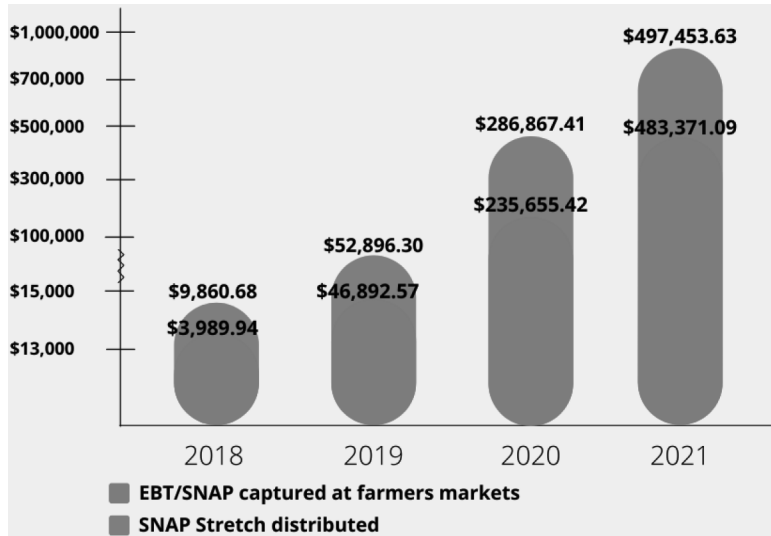
At participating farmers' markets a SNAP/EBT user will bring their card to a market staff representative or volunteer and ask to use any portion of their SNAP/EBT balance on purchases. Typically, the market will issue market scrip, such as tokens. Then, they will also issue "SNAP Stretch dollars" in the form of a similar but distinct scrip. For example, if the user asks to use \$20 from their SNAP/EBT card, they will receive \$20 in SNAP tokens and \$20 in SNAP Stretch tokens. If the user has children or they are a senior citizen, they will receive an additional \$20. So, a family with seniors and/or children would have \$40 to spend at the farmers' market on fruits and vegetables in addition to their \$20 that could be spent on anything that is SNAP-eligible. Similarly, participating local food retailers offer a discount at the register for allowable items before charging the SNAP/EBT card. Detailed documentation is kept and the Coalition reimburses the market/retailer for the SNAP Stretch redeemed.

One of the innovations in the SNAP Stretch program, as compared to national programs, such as Double Dollars and Double Up Bucks, is that there is an additional match (1:2) for families with children. This innovation came from an idea tested by the West Virginia University Family Nutrition Program (WVUFNP). WVUFNP began hosting a series of pop-up farmers' markets at schools and child-care centers. These children were given \$4 in market bucks to spend on fruits and vegetables of their choosing. Over 600 parent surveys revealed that 91% of participating youth ate all of the produce that they purchased because they had the agency to choose. It is with this in mind that SNAP Stretch has continued this practice that not only supports families, it develops youths pallets for fruits and vegetables, and further supports West Virginia Farmers.

*Program Success!*

Prior to the inception of the SNAP Stretch Program, SNAP/EBT purchases at West Virginia farmers' markets were nearly nonexistent. In fact, many farmers' markets paid the necessary internet and point of sale terminal fees for ideological reasons and not because there was a return on investment in SNAP/EBT sales. In a few short years, SNAP Stretch has quickly expanded the use of SNAP/EBT dollars for fruits and vegetables at local markets:

Food Access Dollars in West Virginia Farmers['] Markets



Farmers’ market vendors and small businesses have seen the benefit of the program as SNAP Stretch dollars are reimbursed directly to them. Because of this program, farmers have invested in additional acres of land for an increased output of products to be sold at markets. One of the participating markets normally closes their business for the winter in September, however their SNAP Stretch sales allowed them to remain open for an additional 3 months through the end of the year. “We paid \$165,171 to [our county’s] businesses and fellow farmers in 2021 for their goods and services,” the market owner told the Coalition. “We have also teamed together with several farmers in the area and are working to open our own meat processing facility in [our county]. Our added income with SNAP Stretch has made all of this possible.”

**40
PARTICIPATING
MARKETS**

21 FARM MARKETS

10 BRICK & MORTAR

6 MOBILE MARKETS

3 CSA PROGRAMS

IN 2021



2021 SNAP STRETCH CUSTOMERS

61% **39%**
FAMILIES **SINGLE**
WITH **ADULTS &**
CHILDREN **SENIORS**



Finally, many SNAP Stretch recipients speak highly of the program's positive impact on their overall health. One participant shared the impact of the program on his life with a video testimonial, saying "if we didn't have the EBT [SNAP Stretch] program where it doubled and tripled the dollars, I would never be able to afford to eat healthy because health food costs more". Market managers regularly share stories like these with the Coalition as it becomes clear what a strong impact SNAP Stretch incentives are having.

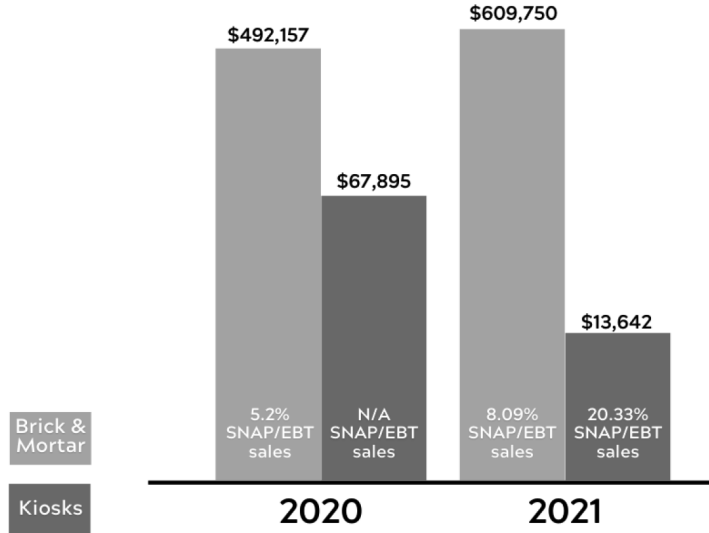
Healthy Food Financing Initiative (HFFI) Became WV Rural Grocer Network: How it Was Implemented in West Virginia

The USDA Healthy Food Financing Initiative (HFFI) aims to improve access to healthy foods in underserved areas, create and preserve quality jobs, and revitalize low-income communities. The program aims to build a more equitable food system that supports the health and economic vibrancy of all Americans. In 2019–2020, the Coalition received an HFFI grant to help establish two brick-and-mortar grocery stores (Blue Ridge Bee Company in Princeton, WV and The Public Market in Wheeling, WV) and five corner kiosks in existing businesses along Route 219 in Pocahontas County to address barriers to food access and support a more equitable food system. This funding allowed the Coalition to (1) *develop a grocery store toolkit* (2) provide technical assistance to participating nascent grocers (3) provide access to necessary supplies and equipment to open the groceries, and (4) strengthen a network of grocers throughout West Virginia.

Program Success!

Each year in compliance with HFFI reporting, the Coalition collects end-of-the-year data from these participating grocers. While the HFFI investment was \$215,400, and the projects all had additional private investment, just 2 years worth of data indicate that there was a significant return on investment in these grocers:

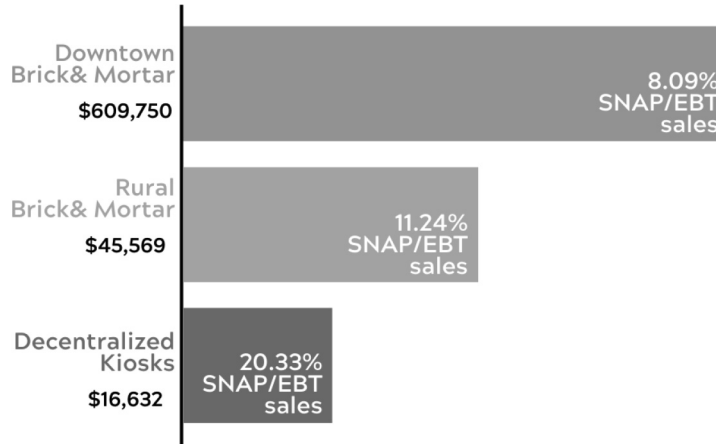
Average Annual Sales between Brick and Mortar Stores and Decentralized Kiosks in 2020-21



Through the HFFI project, the Coalition identified two of the biggest barriers in achieving sustainability in an ever-changing landscape amongst grocers: (1) reliable equipment and (2) the skills to understand their finances in order to make appropriate business decisions. Assessment, expert technical assistance, coaching, and access to capital are required to support these businesses, thus, the WV Rural Grocer Network (WVRGN) was born. In addition to providing access to technical assistance, coaching, and capital, the [WVRGN] also creates a market for locally grown produce and value-added products.

In addition to HFFI reporting, the Coalition collects end-of-the-year data from all of its WVRGN participants, the 2020-2021 results include:

Average Annual Sales of WV Rural Grocer Network Participants 2020-21



Blue Ridge Bee Company is one of the grocers that got their start as part of the HFFI project. The owners, Will and Emily, began harvesting honey in 2014 and noticed a need for a cost-effective way to mitigate varroa mites in their hives that didn't include harsh chemicals and after much research, engineered their own BRBC Oxalic Acid Vaporizer. After success through online sales, Will and Emily en-

visioned a storefront to sell their vaporizer, beekeeping supplies, and honey. Their plan was to use the sales of beekeeping equipment to offset the overhead costs of running a grocery that would benefit their main street community. With support from HFFI and the Coalition, they opened their store in 2019 in Princeton, WV. Once open, the vision expanded and today the store includes value-added products such as jams and jellies, fresh produce, meat, eggs, dairy products, hand-dipped ice cream, and much more!

How do USDA-Funded Nutrition Programs Work Together?

The Coalition views its work as the intersection between economic development and food access. Through programming such as the WV Rural Grocer Network or SNAP Stretch, the Coalition seeks to increase farmers' and food-based entrepreneurs' bottom line while increasing West Virginians' access to fresh local fruits and vegetables. These efforts are combined to support a more equitable food system in the state. Nottingham's Store is a prime example of how this work intersects. Located in Clay County, West Virginia, Nottingham's Store is a family-owned and operated business that offers groceries, hardware, plumbing supplies, livestock feed, night crawlers/chicken livers for fishing, knives, ammunition, and numerous country sundries. In the businesses' 100+ years in operation, it has seen economic declines in their county. Clay County is ranked as the second lowest county in the state in per capita and household income. 27.30% live in poverty including 37.40% children. 29.8% of the population receive SNAP/EBT benefits. With transportation being a large barrier to fresh produce, it is difficult for the population of Clay County to travel out-of-the-county to a full-service grocery store.

Nottingham's Store, however, can see the need its community has for food assistance and more fresh produce options. Nottingham's has also started making business decisions with the changing of the time to meet the needs of their community while also being a viable business. In the fall of 2021, Nottingham's Store began to participate in the WV Rural Grocer Network and SNAP Stretch with the Coalition. After only a few months of participation this small, family-owned business distributed \$9,000 in SNAP Stretch incentives, while capturing \$9,000 in Federal assistance dollars that will remain in Clay County to spur economic growth and help the Nottingham's adapt their business model to the changing landscape around them.

"We want to help our community and customers and hopefully (with SNAP Stretch) can support our local farmers more instead of big box stores," said Bryan Nottingham.

The business is situated between the Elk River water trail and a newly developed rail trail which is attracting visitors and new customers to the area—kayakers, hikers, mountain bikers, and nature enthusiasts. Currently, there are few restaurant options in Clay County so the owners of Nottingham's saw an opportunity to add a to-go kitchen that offers pizza, sandwiches, and daily specials.

As participants of the WV Rural Grocer Network, the Coalition is supporting the Nottingham's through technical assistance and access to the Revolving Equipment Fund. Additionally, the extra income generated from SNAP Stretch allowed the Nottingham's to build out their kitchen ahead of schedule. "This business has been around for over 100 years, we want to see it last another 100 with future generations of Nottingham's," said Pauline Nottingham, when asked about the motivation for changes and updates to the store.

Economic Development Programs Can Develop Nutrition

The Coalition has received a 2016 Farmers' Market Promotional Program and is currently a subcontractor on a Local Foods Promotional Program. These two programs are aimed at economic development within the local agricultural sector. However, these programs easily enhance nutrition in communities. For example, currently, the Coalition helps operate the Go Growcery Market. This mobile cold-storage trailer aggregates produce from local farmers and takes it into rural communities that lack access to grocery stores and sets up a weekly farmers' market. This program is especially successful with seniors!

Farm-to-School grants are aimed at education, economic development, and nutrition. Depending on the implementation plan, all three outcomes can be achieved! In the Coalition's current Farm-to-School grant activities, we're installing gardens at elementary schools in partnership with teachers to both teach about agriculture and develop the pallet for the taste of vegetables with young children. We're also able to engage farmers and develop systems for farmers to sell their fresh produce into the school system that will increase children's access to more nutritious fresh foods. Also in development is a youth-ran business that sells fresh produce and value-added products to communities!

Future Program Recommendations

Match Requirements

It is understood that most grant programs have matching requirements—in theory, it shows that the community is invested in the project. In reality, matching requirements disadvantages rural communities, low-resource communities, communities of color, and smaller nonprofit organizations. These communities inherently have far less access to funds than affluent communities and urban communities. According to a study commissioned by the Bill and Melinda Gates foundation 91 of out 100 of the most disadvantaged communities are rural and 20% of the country's population reside in rural areas (Carlson and Cook 2021).^{*} However, according to multiple sources, only 5–7% of philanthropic dollars are invested in rural communities.

Concessions in matching requirements for rural communities, low-resource communities, communities of color, and smaller nonprofit organizations should be made in order to encourage projects that benefit these communities.

Requiring Grants to be Reimbursable

Currently, the vast majority of Federal grants are considered to be “reimbursable.” This means that organizations or communities must first spend the funds first and then receive reimbursement. While some grant programs do allow for pre-approved “advances” on known expenses, the practice of reimbursable grants creates two challenges: (1) it disadvantages smaller organizations who do not have the cash flow to manage a grant and wait a minimum of 4 weeks to 4 months for reimbursement. It often requires these organizations to take out lines of credit and pay interest fees instead of investing funds into communities, and (2) it locks smaller communities or community organizations out of applying for funds completely, simply because they are unable to operate on a reimbursement basis.

Requiring that grants are reimbursable locks smaller community groups out of the ability to apply—or it requires that groups take out a line of credit and then pay interest rates. Some grants allow reimbursement within 24 hours and some take 4–8 weeks.

Use of Intermediaries Organizations

The use of intermediary organizations can be helpful. Organizations such as the Gretchen Swanson Center and Fair Food Network provide useful technical assistance and data collection support to organizations.

However, using an intermediary to administer the grant makes community groups essentially a “sub-awardee,” which significantly increases the administrative paperwork in order to receive reimbursements, ultimately increasing overhead costs. While it is sometimes helpful to have the support an intermediary can provide, it is usually easier and less time consuming to operate the grant, dealing directly with staff at the USDA.

Length of Time Between the Program Announcement and Submission Deadlines

Annually, the GusNIP Request for Applications (RFA) is made available to the public only 60 days in advance of the submission deadline. Significant changes were made between 2019–2020 in the program funding requirements. Most noticeably, priority areas in program design and preferred firm types along with the allowable options for issuing nutrition incentive dollars. Following the 2020 RFA, every annual request has continued in this pattern. While it is helpful that program operators are listening and responding to feedback, more than 60 days would help community-based organizations submit more thoughtful informed applications as preference is given to those grantees who demonstrate coordination with multiple stakeholders, such as farm organizations, nutrition education programs, cooperative extension services, public health departments, private and public health insurance agencies, cooperative grocers, grocery associations, and community-based and non-governmental organizations. It can be challenging to coordinate all of these stakeholders on a short schedule.

Programs Need More Funding

In 2016, the Coalition received a Farmers['] Market Promotional Program grant for \$500,000 and applied for another in 2022. The difference in what can be achieved with \$500,000 in 2016 vs. 2022 is astoundingly different. Many of the aforementioned programs have not experienced an increase in the amount of fund-

^{*}**Editor's note:** there is neither a link, nor an end note citation, for this in-text citation. It has been reproduced herein as submitted.

ing that can be applied for in many years. With higher costs associated with travel, having staff, supplies, construction, *etc.*, these programs need higher funding caps.

To illustrate this point even further, GusNIP has increased emphasis on recruiting brick-and-mortar retailers over farmers' markets to participate in the program, with the rationale being that brick-and-mortar stores are open longer hours. However, without a sufficient increase in funds to enable this expansion, there often isn't enough of an incentive for grocery stores to join the program, given the additional administrative oversight that they incur.

Brick and mortar retailers operate longer hours and often have more registers and employees. This creates an increased paperwork and reporting burden for these firms, as well as increased incentive money required to operate SNAP Stretch. Brick and mortar firms often require additional onboarding effort and training, accounting for the increased time commitment and travel per market for program staff. When the GusCRR grant was introduced with an increased emphasis on brick-and-mortar retailers, the grant funds were not increased to account for these considerations.




Concluding Thoughts

The Coalition has continued these programs launched with USDA FINI and HFFI funding and is always finding new and exciting partnerships to work with. One such partnership is Keep Your Faith Corporation, Inc (KYFC) located on the West Side of Charleston, WV. KYFC is a community-based organization working to grow and cultivate opportunity and support community through programs centered around behavioral health, food insecurity, and workforce development.

In partnership with the Coalition, and with American Rescue Plan Funding, KYFC is developing Miss Ruby's Corner Market, a community-owned grocery store, that will provide healthy food access and will employ youth from within the community to help grow food, stock, manage, and conduct community engagement. This store will also accept SNAP Stretch and engage in a number of community-based programs that other NGO and University Extension Services have to offer—all the economic development, food security, and better nutrition for the community.

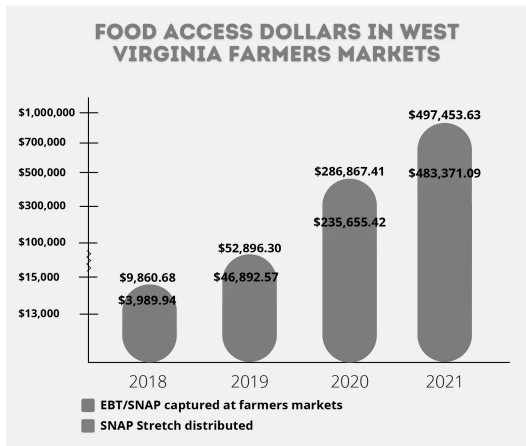
West Virginia Rural Grocer Network by the numbers

The West Virginia Food and Farm Coalition collects year end data from all of its WVRGN participants.
The 2020-2021 results include...

Downtown Brick and Mortar	Rural Brick and Mortar	Decentralized Kiosks
		
average annual sales \$609,749.92	average annual sales \$45,568.50	average annual sales \$13,642.26
average weekly sales \$12,120.49	average weekly sales \$1,446.93	average weekly sales \$635.51
average basket size \$30.03	average basket size \$19.05	average basket size \$27.23
SNAP/EBT sales 8.09%	SNAP/EBT sales 11.24%	SNAP/EBT sales 20.33%
Full-time jobs created 4.5	Full-time jobs created 0.5	Full-time jobs created 1.17
Part-time jobs created 5.5	Part-time jobs created 4	Part-time jobs created 1.33

WHAT IS SNAP STRETCH?

SNAP Stretch increases the buying power of EBT/SNAP recipients, increases the consumption of locally grown fruits and vegetables, and decreases food insecurity in West Virginia.



The SNAP Stretch program matches EBT/SNAP benefits spent at participating farmers markets, farm stands, mobile markets, Community Supported Agriculture programs (CSA) and local independent grocers at a 1:1 ratio. Seniors and families with children are matched at a 1:2 ratio for the purchase of fruits and vegetables. SNAP Stretch also captures federal food assistance dollars, EBT/SNAP, in the local food economy which profits West Virginia farmers. In 2021, \$483,371 in federal food assistance dollars were captured in West Virginia's agriculture economy as a result of SNAP Stretch.

**Updated as of 2/8/22

VISIT SNAPSTRETCH.COM

TO LEARN, EXPLORE & DONATE



West Virginia Food and Farm Coalition • 3820 MacCorkle Ave SE | Charleston, WV 25304 • 304-926-0567

in 2021

\$1,674,888
ECONOMIC
IMPACT *

35,960
PARTICIPATING
HOUSEHOLDS

40
PARTICIPATING
MARKETS

21 FARM MARKETS

10 BRICK & MORTAR

6 MOBILE MARKETS

3 CSA PROGRAMS



**35 WV COUNTIES
PARTICIPATING**

61%
FAMILIES
WITH
CHILDREN

39%
SINGLE
ADULTS &
SENIORS

*According to USDA and Colorado State University



Miss Ruby's Corner Market

Reclaiming community

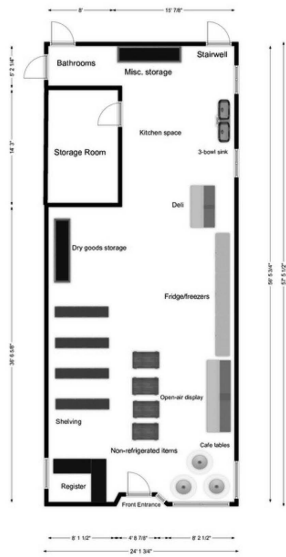




739 Central Avenue was once Abraham Grocery, providing food to the neighborhood and a local gathering place for a soda at the traditional soda fountain. It later became Park Place Bar and was relegated to a location where criminal activity occurred. The community has expressed a real interest in returning this building into a positive location in the neighborhood for years.



The location is situated on the bus line, as well as within walking distance from Jarrett Terrace, a senior high rise living facility, seen above



The view from the front door helps to paint a picture of what could be- a vibrant, positive gathering space for neighbors to gather essentials and connect with each other.



Keep Your Faith Corporation

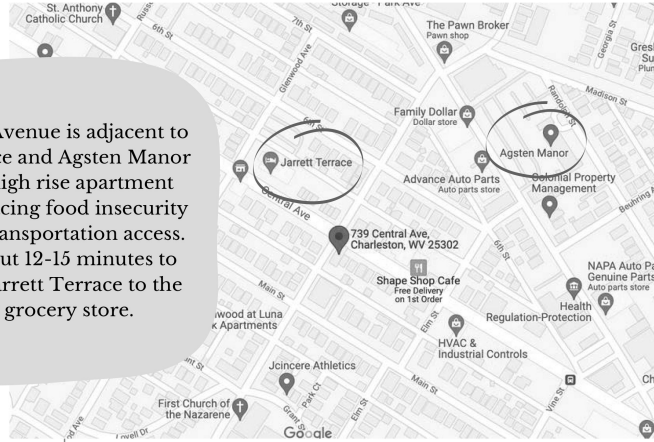
Keep Your Faith Corporation, Inc. (KYFC) began as a literacy-focused volunteer group meeting the needs of local children and adults struggling with the ability to read and write. KYFC has expanded program initiatives in response to community and statewide social and health determinants to include a focus on behavioral health, food insecurity, and workforce development. KYFC operates West Side Grown, a project that is striving to eliminate food insecurity by increasing access to fresh fruits and vegetables while promoting agricultural and nutrition literacy and economic growth.



The second level of the building will provide a mixed use work space in the heart of the community allowing KYFC to expand their youth workforce development.



739 Central Avenue is adjacent to Jarrett Terrace and Agsten Manor which are high rise apartment complexes facing food insecurity and lack of transportation access. It takes about 12-15 minutes to walk from Jarrett Terrace to the nearest grocery store.



With the WV Rural Grocer Network, the Food and Farm Coalition is able to connect with community grocery stores, like Miss Ruby's Corner Market, and provide technical assistance, coaching, and support.



Cafe tables and chairs will help to encourage a sense of community and gathering in the restored building.



The CHAIRMAN. Thank you, Ms. Moss. And now Mr. Smittcamp.

STATEMENT OF WILLIAM S. "BILL" SMITTCAMP, PRESIDENT AND CHIEF EXECUTIVE OFFICER, WAWONA FROZEN FOODS, INC., CLOVIS, CA; ON BEHALF OF AMERICAN FROZEN FOODS INSTITUTE

Mr. SMITTCAMP. Thank you, Chairman Scott, Ranking Member Thompson, and distinguished Members of this Committee. I thank you for the opportunity to speak with you today about USDA feeding programs and how they can best serve the consumers, especially the most vulnerable and underserved populations. I am Bill Smittcamp, President and CEO of Wawona Frozen Foods in Clovis, California, and I am representing the American Frozen Foods Insti-

tute. At Wawona, we grow and process over 125 million pounds of fresh and frozen fruits and nutritious produce and products that we supply worldwide to sectors such as the school lunch program, the foodservice industry, retail, and we are also an ingredient supplier. We have been in business since 1963, and we are honored to have been partners with the USDA for over 35 years, serving families who participate in the national school lunch program and as well as food stamps.

Personally, I am passionate about feeding communities not just in my hometown, but among populations around the community. Family businesses and community are a way of life for me and my family. And I think this is very important that we are here today.

We believe households are best served when they have access to all forms of nutritious foods, just as my family does. We know that USDA nutrition programs have been successful in bringing fresh foods to recipients. However, there is an opportunity to include and promote frozen foods to enhance these programs and help ensure families have access to high-quality nutrition throughout the year, regardless of their geographic location. This is especially true in programs such as GusNIP—in the Produce Prescription Program, FDPIR, and consumer education through programs such as SNAP-Ed.

When we think about strengthening these programs in the 2023 Farm Bill, there are three main components I would encourage you to consider. Americans fall far short of meeting recommended intakes of produce and therefore feeding programs intended to increase produce consumption should promote all forms of produce. The U.S. *Dietary Guidelines for Americans* recommend consumers eat all forms of fruits and vegetables, including frozen, fresh, canned, and dried, to meet the recommended daily intakes. Frozen foods offer a cost-effective and pragmatic way for people to meet these intakes.

Second, the frozen food advantage. The frozen food promotes a sustainable food system, especially one that minimizes food waste. Frozen foods are critical to fighting food waste due to the extended shelf life and proportional serving that help consumers prepare just the right amount of food that they need to eat. For example, families currently throw away over \$2,200 a year in food waste, but frozen foods are pre-measured, ready to serve, their longer shelf life than refrigerated or fresh foods, so households can avoid their financial waste by utilizing frozen products.

And then third, the supply chain stability. We should consider that freezing is like nature's pause. It allows us all to enjoy just-baked, just-harvested, just-crafted food at our convenience without losing any of the freshness or its nutritional benefit. For example, Mother's Day, we just celebrated all of our mothers and the strawberry season was ramping up. And then, that Sunday, we celebrated with strawberry shortcakes. But then what happened on Monday? There was no market after that. That is where the frozen food industry steps in as a safety net and takes those strawberries on, freezes them, puts them in 4 ounce fruit cups for the USDA School Lunch Program or for the TEFAP program. And this is where I believe that we need to improve the ability to get frozen into these programs.

Unfortunately, we often hear that, due to lack of funding, there is lack of freezer capacities for schools, food banks, pantries, retail locations, and that these outlets cannot or will not accept frozen product. The real point here I am trying to make is that our peach season is 4 months, all during when school is out. We can have frozen peaches all year round. You can have them in November, December, January when it is done. I thank you for your time.

[The prepared statement of Mr. Smittcamp follows:]

PREPARED STATEMENT OF WILLIAM S. "BILL" SMITTCAMP, PRESIDENT AND CHIEF EXECUTIVE OFFICER, WAWONA FROZEN FOODS, INC., CLOVIS, CA; ON BEHALF OF AMERICAN FROZEN FOODS INSTITUTE

Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee, thank you for the opportunity to speak with you today about USDA feeding programs and how they can best serve all consumers, especially the most vulnerable and underserved populations. I am Bill Smittcamp, President and CEO of Wawona Frozen Foods located in the San Joaquin Valley in Clovis, CA, and representing the American Frozen Foods Institute. At Wawona, we grow and process over 125 million pounds of fresh fruit into nutritious frozen fruit products that we supply worldwide to sectors such as schools, foodservice, retail and as an ingredient supplier.

We have been in business since 1963, and we are honored to have been partners with USDA for over 35 years to serve families who participate in the National School Meals Program, as well as TEFAP. Personally, I am passionate about feeding communities, not just in my hometown but among populations around the country. Family, business, and community are a way of life for me and my family . . . not to mention peaches.

We believe households are best served when they have access to all forms of nutritious foods, just as my family does. We know USDA nutrition programs have been successful in bringing fresh foods to recipients. However, there is an opportunity to include and promote frozen foods to enhance these programs, and help ensure families have access to high quality nutrition throughout the year, regardless of their geographic location, available time to prepare meals, and cooking skills. This is especially true in programs such as [GusNIP], in both incentive and produce prescription programs, [FDPIR], and consumer education through programs such as SNAP-Ed. When we think about strengthening these programs in the 2023 Farm Bill, there are three main components I'd encourage you to consider.

1. Americans fall far short of meeting recommended intake levels of produce and therefore, Federal feeding programs should promote greater consumption of these important foods. Feeding programs intended to increase produce consumption should promote all forms of produce.

The U.S. *Dietary Guidelines for Americans* recommends consumers eat all forms of fruits and vegetables, including frozen, fresh, canned, and dried, to meet the recommended daily intake. Frozen foods offer a cost-effective and pragmatic way to help people meet these nutritional needs.

USDA's Thrifty Food Plan recognizes the value of frozen food in helping consumers eat a diet that meets Federal nutrition guidelines. This is thanks to the benefits that frozen food offers in meeting value, time, and preparation needs. Frozen food is delicious, nutritious and helps families meet their food and nutrition goals while ensuring they spend less money over time.

Additionally, *results from menu modeling** show that realistic, balanced and affordable menus featuring mostly frozen foods can meet energy, nutrient and cost goals based on recommendations from the *Dietary Guidelines for Americans*, MyPlate and the USDA Thrifty Food Plan.

When studying produce consumption in the United States, data indicates that many consumers do not eat more produce because they do not know how to prepare it.¹ Frozen vegetables are peeled and trimmed, ready to cook with easy-to-follow cooking instructions on package. In addition, research shows that the nutritional

* <https://frozenadvantag.wpengine.com/achieve-the-dietary-guidelines-for-americans-with-frozen-foods/>.

¹ <https://fns-prod.azureedge.us/sites/default/files/resource-files/SNAP-Barriers-Summary.pdf>.

value of frozen fruits and vegetables is equal to, and in some cases better than, fresh produce.²⁻³ We need to ensure consumers are encouraged and able to purchase the form of produce that is right for their family and meets their ease of preparation and cost needs.

2. The Frozen Advantage: frozen foods promote a sustainable food system, especially one that minimizes food waste.

Frozen foods are critical to fighting food waste due to their extended shelf-life and pre-portioned servings that help consumers prepare just the amount of food they plan to eat. For example, families currently throw out up to \$2,275 worth of food each year,⁴ but frozen foods are often lower in cost-per-serving and have a longer shelf-life than refrigerated or fresh foods, so households can avoid this financial waste by utilizing frozen products.

This translates to consumers saving money and benefits to the environment by reducing Greenhouse Gas (GHG) emissions in landfills from food waste. This reduced waste can also help lessen the environmental impact across the entire food production chain, including at the distribution and retail level.

3. Supply chain stability: We should consider that freezing is like nature's pause button. It allows all of us to enjoy just-baked, just-harvested, and just-crafted food at our convenience without losing any of the freshness or nutritional benefits.

For example, the day after Mother's Day, suddenly there is a sharp decrease in demand for fresh strawberries. So, we in the frozen industry are the safety net for the strawberry growers for the fresh market that could [plummet]. Therefore, we now freeze those strawberries, so that the nutritious strawberry could be eaten any time of the year and not wasted. Access to food year-round is one reason why USDA's feeding programs are extremely important, and why we should work together to strengthen them.

Unfortunately, we oftentimes hear that, due to a lack of freezer capacity at schools, food banks, pantries, and retail locations, that these outlets cannot or will not accept frozen foods. How can we work together to solve these *infrastructure challenges* and ensure that consumers can access multiple forms of produce for their nutritional needs at any time? The real point that I am trying to make here, is that our peach season in the U.S. is 4 months long. With frozen peaches in particular, the recipients and school kids can have a delicious, healthy fresh-frozen peach during any season.

In conclusion, as you craft the 2023 Farm Bill, please ensure that frozen foods are allowed and encouraged as a solution to increasing nutrition access and ending hunger. In any program that is specifically geared to increase produce consumption, we would like to see families have the option and incentive to purchase *all forms of nutritious* foods: fresh, frozen, dried, and canned.

In the U.S. in 2022, I am saddened we are still talking about how to help hungry people, yet we are. But the frozen industry stands ready to offer innovative solutions and work with you to make sure that all Americans have access to the bounty of products, the fruits of our labor, if you will, we food producers can offer. I thank you and "Think Peaches."

The CHAIRMAN. And thank you so much, and thank all of you. You have all given wonderful, informative testimony.

And now we will move to our questions at this time. Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us to get in as many questions as possible. And as always, please do keep your microphones muted until you are recognized so we can eliminate any background noise.

And now let me start off. I recognize myself for 5 minutes.

Mr. Waide, you have delivered some very troublesome news to this Committee, and it is news that is daily on all the newscasts.

²Bouzari, A., D. Holstege and D.M. Barrett. 2015. *Vitamin Retention in Eight Fruits and Vegetables: A Comparison of Refrigerated and Frozen Storage*. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, 63(3): 957-962.

³Li, L., et al., 2017. *Selected analyses of fresh, fresh-stored, and frozen fruits and vegetables*. JOURNAL OF FOOD COMPOSITION AND ANALYSIS, 59: 8-17.

⁴<https://www.nrdc.org/media/2012/120821>.

People are not just suffering from the lack of food but the lack of ability to get the food with the high prices. What I want you to do, if you can, is share with us and the nation how serious this problem is. We have veterans not getting—tell us how serious this is. And you are in a position to best tell us Members of Congress what do we need to do right now to help with this food crisis, with Feeding America and your fellow community food banks? We are determined to make sure that nobody goes hungry in our nation. Everything almost you can do without, but food you can't, so it is critical. Tell us what we need to do here in Congress to help you and to address this food accessibility crisis.

Mr. WAIDE. Well, thank you for the question, Mr. Chairman. And, as I said in my testimony, lines at food banks are now increasing again. We went through a period over the latter half of last calendar year where we were really seeing a reduction in demand as people were getting back on their feet. But the impact of rising gas prices, food prices, and other basic needs is having a serious impact.

I just had a conversation at the end of last week with a couple of our feeding program partners in a couple of counties, historically known as affluent suburban counties north of Atlanta, in Cobb County and in north Fulton County. And those partners are telling us how the client base that they serve is growing. And more troubling is that in that client base there are people who are showing up who, just like in the early days of the pandemic, have never needed help getting food before in their lives.

The CHAIRMAN. Yes.

Mr. WAIDE. These are new clients. They had found a way to survive the pandemic, and now they are facing trouble.

What we need help with in the Feeding America network, and for my food bank in particular, is, as we look forward to the farm bill, that we need increased mandatory funding for TEFAP commodities. TEFAP commodities are really high-quality, nutritious food products that offer a lot of variety. They offer high nutritional content, and they help us ensure that our client base has access to the food.

The CHAIRMAN. So, you have given us one, that TEFAP funding. What is it now, and how much additional do you need, and how—so we can address—

Mr. WAIDE. Well, we have enjoyed tremendous TEFAP access and other nutrition program access during the pandemic, and that provided us with a huge influx of food during that critical time. We are in the process right now of those supplemental forms of funding having been exhausted, of reverting back to the baseline of TEFAP. And what that means is that our access to TEFAP in the next 18 months is going to decline significantly. We are asking for an increase to \$450 million in annual TEFAP funding.

The CHAIRMAN. That \$450 million increase into the farm bill, is that—

Mr. WAIDE. In total TEFAP funding of—

The CHAIRMAN. Okay. We want to work with you on that. Our staff will follow up on that because I agree with you. I wanted to get to you also. But in the spirit of what I say, my time has expired. Ranking Member, maybe you will—

Mr. THOMPSON. Mr. Chairman, you are a man of your word.

The CHAIRMAN. Yes, sir, thank you.

Mr. THOMPSON. Thanks once again to all the witnesses.

The recently announced White House Conference on Food, Nutrition, Hunger, and Health, which is really kind of interesting, no outreach from the White House on this. You would think you would want to engage the authorizing Committee when it comes to nutrition. But they advertise it as an event to accelerate progress and drive significant changes to end hunger, improve nutrition and physical activity, reduce diet-related disease, and close disparities around them. And while that mission is laudable, as I have said before, the listening sessions to date have left a lot to be desired, including a strong focus on just SNAP-specific policy and not much else, including the programs that you all are here to discuss. So for any of the witnesses, what has been your participation thus far in that process? Do any of the organizations represented here have a role—I assume Feeding America.

Mr. WAIDE. So, I know Feeding America, the national organization, is in conversation with the various organizers of the conference. And in particular, what our network is working to do is to help identify folks who are receiving—the food-insecure families, people with lived experience, who can talk about the challenges they experience day to day, and have those folks participate in a variety of listening sessions to inform the content of the conference. And then I think there are other conversations going on among Feeding America folks that I haven't been privy to personally, but I know that we are engaged in the planning around the conference.

Mr. THOMPSON. Okay. Any other organizations represented here today have received an invitation to be engaged in this conference? Not seeing it? Okay. When Feeding America has been—and if you were invited—which I am really surprised by the fact that you weren't. So if you weren't, say, and you were king for a day, what would you like to see? What would this conference look like if you were able to plan it, organize it, implement it? What kind of conversations? What would it look like?

Mr. SMITTCAMP. Thank you, Ranking Member. We have been.

Mr. THOMPSON. Okay.

Mr. SMITTCAMP. As I said, we have been invited, and I think what we would be looking for from the conference would be just equal access, fresh, frozen, canned, so that there was, again, parity in everything that we do. And that would be really what we are looking for. We don't want the big side of it. But our products are better transported than some of the fresh side of things.

Mr. THOMPSON. Very good. Any other thoughts which you would like to see this conference turn out to be? Please, Ms. Moss.

Ms. MOSS. Certainly. I think it would be really interesting to see an emphasis on rural communities, and particularly the farmers that support feeding people in this country. I think there is a lot of emphasis placed on commodities and whatnot, but given the mobility issues of food that we have seen throughout the pandemic, I think an emphasis on our local agriculture and our local farmers would be significant and really looking at rural communities. So that is what I would love to see an emphasis on.

Mr. THOMPSON. Very good. Thank you. Mr. Waide, any thoughts of, you are obviously—your organization is going to be a part of the process. If you had the ability to help shape this agenda, those discussions, anything particularly you really want to make sure this would look like?

Mr. WAIDE. Yes, I would just offer three thoughts. I think, first, as I said, it is really important that we listen to food-insecure families and understand what life looks like on the ground for them firsthand as the first sort of data point in understanding what solutions we need to develop to help them have food access. Let's listen to them first.

I think, second, we have to think about the hunger issue, the food insecurity issue more broadly as an economic insecurity issue and think about what it takes comprehensively to help people have access to financial opportunity that would prevent food insecurity.

And then I think, third, I would want to see us in that conversation with alignment on the goals and metrics of what success looks like. I think sometimes we don't have alignment on metrics and goals, and that leads to a lot of disagreement about inputs. If we can get aligned on goals and metrics that would help us develop better solutions.

Mr. THOMPSON. Very good. Well, Mr. Chairman, thank you so much. My time has expired.

The CHAIRMAN. The gentleman from California, Mr. Costa, who is also the Chairman of the Subcommittee on Livestock and Foreign Agriculture, is now recognized for 5 minutes.

Mr. COSTA. Thank you very much, Mr. Chairman, for this hearing. It is important as we set the table, literally and figuratively, for next year's farm bill. And I want to thank the witnesses. I think you have all underlined in various ways what I like to say, and that is that food, food that we grow in America is a national security issue.

And when we talk about the SNAP program, otherwise referred to as food stamps, but the other programs that ought to be touched upon in one fashion or another, what we are talking about is America's safety net, America's safety net to ensure that in fact all Americans have quality and affordable food. But in some cases, we know we have real challenges. And certainly, this pandemic pointed out the challenges we have, especially among those who live in food deserts, those who have other difficult challenges in terms of their economic income and being able to have a decent meal on their dinner table. So many of the children today we know in nutrition programs get their best meal of the day in the school lunch or breakfast program. And of course, when we don't have school going on, that is more difficult for those children.

Obviously, not time to cover all of the areas; but, Mr. Bill Smittcamp, Wawona Foods in Clovis, California, I have worked with you and your family now for three generations. And I want to commend you not only for your efforts and being a pioneer in terms of the frozen food production and the many fruits that you are able to provide over an entire year, as you noted in your testimony, but also the importance of the nutritional value of that program and the challenges faced in making that available. Obviously, freezer capacity and other factors and supply chain are critical.

But you and I have discussed this in the past, Bill, as to what the USDA qualifies that should be included or not included in the school lunch programs in terms of what is nutritious. And we grow so many products out in California, and around the country. What are your thoughts in terms of how we do a better job?

Mr. SMITTCAMP. Well, I think the USDA currently is doing an excellent job reaching out. We just had a meeting with them yesterday in regards to innovation, how we can get more products into them. But during the pandemic, for example, we were very instrumental with fruit cups and individual servings rather than the #10 can or a way where fresh fruit was not quite available during the winter months. There were innovative serving sizes that the frozen industry could apply to all these things.

We just think that, with what we are doing, that we continue to move forward with *frozen* in the language. I think this is part of what—

Mr. COSTA. Is freezer capacity an issue, especially in our schools?

Mr. SMITTCAMP. No, I think we have the capacity to supply more frozen foods to the world—

Mr. COSTA. How about food banks?

Mr. SMITTCAMP. Pardon me?

Mr. COSTA. How about our food banks?

Mr. SMITTCAMP. And the food banks. I think there again, we are the safety net, the frozen food side, whether it is freezers of fruits or vegetables.

Mr. COSTA. When the height of the pandemic and having people that had never been—Mr. Waide, as you indicated—to a food bank in their lives, put more pressure and demand on the services of food banks. I found some of the food banks in our area having challenges in terms of being able to make that supply. The point you made to the chair in your closing testimony talked about increasing funding. And I think one of the debates we are going to have here in Committee next year is baseline funding. If we are going to be able to expand capacity here in a host of areas, we are going to have to deal with the baseline funding. Have the food banks in the country come up with any suggestions on how we tackle that issue?

Mr. WAIDE. In terms of expanding baseline funding?

Mr. COSTA. Right.

Mr. WAIDE. Well, I mean, I don't know how to solve the budgetary—

Mr. COSTA. No, I am not expecting you to do that.

Mr. WAIDE. But I—

Mr. COSTA. Do you have recommendations in terms of anticipating what the need may be?

Mr. WAIDE. Yes, so our recommendation is \$450 million in baseline funding.

Mr. COSTA. Nationwide?

Mr. WAIDE. Nationwide, yes.

Mr. COSTA. All right. You talk about waste in our food supply chain, and you noted \$2,100. How do we get at the waste that we need to cut at all ends of the food supply chain? My time is obviously almost over. But I would like you to submit that to the Committee for future reference.

The information referred to is located on p. 1101.]

The CHAIRMAN. Thank you. And now the Chairman recognizes the gentleman from Georgia, Mr. Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And I want to focus on the domestic food issue. But I do want to make just a brief statement that I hope that America is watching what is happening with the food supply around the world. Ukraine exported 50 million metric tons of corn and wheat. They were the largest supplier of the UN World Food Programme. And while we have challenges in America, I am afraid that we are about to see people literally starving to death throughout Africa, Asia, and other lower-income parts of the world.

And we need to be cognizant that the nitrogen and the potash that was coming through the Black Sea region, which are two of the key elements we use to achieve the yields inside the United States, that supply of fertilizer may not be there next year, and we need to be cognizant of that. And we need to be making sure that we are doing everything we can as a Committee to replace the supply from Russia and Belarus and others so that we are not dependent on them for our yields.

That said, Mr. Waide, I am from Georgia. And before the Family Food Box Program was put in, I literally know farmers who were sharing hundreds of hundreds of thousands of dollars' worth of vegetables. It was done, admittedly hastily, but I will tell you, those crops would have been left to rot in the field. And I watched my National Guard pass out boxes of food that I think any of us would have been proud to serve on the most special of days in our homes.

I am disappointed in the criticism of that program from President Biden and Secretary Vilsack. I think it was a program that was extremely effective and served America well, especially based on the speed with which it was put in.

We have moved now to the TEFAP program since Farmers to Families was canceled. And just I understand that your food bank, that you have received some of these boxes already, is that correct?

Mr. WAIDE. Yes, we received boxes through both programs. The Farmers to Families Food Box Program provided a lot of support for our community, helped us meet the need in our community. And in the new program, we have benefited from that as well.

Mr. AUSTIN SCOTT of Georgia. And how many commodities are available through that program?

Mr. WAIDE. I don't know the specific number of commodities. We can follow up with that specific answer.

[The information referred to is located on p. 1101.]

Mr. AUSTIN SCOTT of Georgia. Okay. All right. Do you think it is meeting your demand for fresh produce?

Mr. WAIDE. Well, I would say that the demand for fresh produce in our community currently exceeds what we are doing. I think we are trying to grow our capacity to move produce effectively. Some of the challenges relate to what Mr. Smittcamp was talking about, an opportunity to invest in processing capacity to preserve more fresh products so that it can be utilized by the families that we serve. I think investments in agile programs that can operate quickly at scale to capture surplus produce will help us move more produce to the families who need it. So again, the Farmers to Fam-

ilies Food Box Program was an attempt to do that, and I think we benefited a lot from it.

Mr. AUSTIN SCOTT of Georgia. Okay. Mr. Smittcamp, for the most part, each of the programs under discussion include all forms of produce, as well as a variety of other frozen products. What specific programs need a stronger focus on all of these forms?

Mr. SMITTCAMP. Well, I think when it really comes down to it, it is the access, but it is also the ability to distribute and warehouse in these rural communities that do not have the capacity to handle fresh and frozen products across the country. And that is where I believe the focus really needs to be is on capacity of storage. When Congressman Costa asked me about availability, I was thinking about it from a production side rather than from the recipient side. But it really is needed on the recipient side because we have the capacity to produce it, but then there is no capacity to store it and move it.

Mr. AUSTIN SCOTT of Georgia. I want to thank all of you for being here and helping us solve these challenges as we push ahead. And I just want to again, advocate for those who are working to solve the problems throughout the world with the issues and the new challenges from Russia. Thank you.

The CHAIRMAN. The gentleman from Massachusetts, Mr. McGovern, who is also the Chairman of the House Committee on Rules, is now recognized for 5 minutes.

Mr. MCGOVERN. Well, thank you, Mr. Chairman. And let me start off by thanking all our witnesses for their comprehensive testimonies about these incredibly important programs that I am determined to see strengthened in the next farm bill.

I want to bring up a few points on GusNIP, which has continued to show us that incentives actually work. When I was on a farm tour last year throughout Massachusetts, I heard from farmers that the Double Up Bucks Program has made an incredible difference in their lives and for the lives of their customers. They mentioned to me that during the pandemic when many of us were worried about going to the grocery store, that the Double Up Program helped support people looking to make healthier choices without limiting what consumers could and could not buy.

What I care about is making it easier for people to access fruits and vegetables, and that is exactly what programs through GusNIP do. And, that to me is better than having—as some of my colleagues have advocated—having government dictate what people can and cannot eat or what they can or cannot purchase with their SNAP dollars. Quite frankly, I think that is offensive. It robs people of choice, and it robs people of dignity.

And so, my goal is to find ways to expand these incentive programs in the next farm bill, and I look forward to working with my colleagues who also get that these incentives actually help people make healthier choices that make sense for them, and also enables them to buy culturally appropriate foods for their families.

So next, while we have Mr. Besaw here, I want to take a minute to talk about the Food Distribution Program on Indian Reservations, especially how we can expand regional purchasing. Through the Rules Committee's push for a White House Conference on Hunger, Nutrition, and Health, I have had the opportunity to speak

with Tribal leaders all across this country. And while I am amazed by the work that this program has done, I heard over and over that Tribes are looking for more diversity of food options available to them, and they are looking for more—and the Tribal leaders will tell me that what Tribes eat in the Pacific Northwest is not the same of what Tribes in the Southeast want in their eating, and yet there is not currently a structure in place to fully support this. So, this is something I started working on in the last farm bill and something that I fully intend to continue working with USDA on.

So, Mr. Besaw, I would like to ask, in your opinion, what do we need to make regional purchasing a reality? What are the things that you in your role think that we would need to make regional purchasing feasible?

Mr. BESAW. One of the things—and thank you for that. One of the things that we looked at, again, is using the 638 funding, the Indian Self-Determination Act. So, if we took that—if we were allowed—and we are not talking additional funding, we are talking about funding AMS currently uses to purchase. And now we have that ability to contract so we can make the determinations on purchasing. We can help grow the local producers and ranchers. Many times, on Tribal reservations, we do not have that in place right now enough for the farm, the bigger industry on there. If we had that ability to be able to decide who we purchase from using an expanded and permanent 638 funding, which really is not so much additional funding, but is replacing what AMS currently does, by us deciding who those local producers are, we can grow them. If they have the capital to build their infrastructure, put in more pack wash, more fencing, and really grow what they do, then there is a greater chance that they can expand. And that is what we want. We don't want to be fed a fish. We want to be able to learn how to fish. So, we want to build those economies. And that is a strong answer towards some of the other inputs and some of the other international and national systems problems we have.

Mr. MCGOVERN. Right.

Mr. BESAW. We want to have a resilient, smaller system in place.

Mr. MCGOVERN. Yes, and I appreciate that. I have heard that over and over from other leaders. Let me just say one thing. That is why we need a White House Conference on Nutrition, Health, and Hunger. We need to connect the dots better, and I think we need to listen to people on the ground and people with lived experiences. And again, I would hope that everybody on this Committee, Democrats and Republican alike, rather than try to diminish the importance of a White House Conference would embrace it and use this opportunity for us to look at these issues holistically and actually help people get access to the food that they want. But thank you very much.

The CHAIRMAN. Thank you. And now the gentleman from Arkansas, Mr. Crawford, is recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman.

I want to direct this question to Dr. Gruner. Recent evaluations of GusNIP have reported about 85 percent of retailers are in urban areas despite there being roughly the same SNAP density across different geographies and demographics. Additionally, about 70 percent of projects are in farmers' markets. While supporting

smaller local farmers is vitally important, less than one percent of SNAP benefits are redeemed at farmers' markets. What more can be done to ensure that retail SNAP customers have access to incentive programs like GusNIP in rural areas and in the retailers where they most often redeem benefits? And go ahead and give me your thoughts on that.

Dr. GRUNER. Thanks, Representative Crawford. I think, as I mentioned, a stronger investment in GusNIP—in particular for grocery expansion—is desperately needed. We know that farmers' markets are limited usually once a week, sometimes twice a week for a couple of hours. Grocery stores are open every single day, all hours, except for evenings, usually, so they have a much higher SNAP volume and also utilization rate.

So, just in our experience, when we have tried to expand into some of our grocery outlets, in corner stores in smaller rural areas, we have gone through funding a lot more quickly. Our funding formula was kind of blown out of the water. We tried our best to use some of the resources available to estimate what the funds would be so we could properly supply and bring on those partners. And then what we don't want to do is go into communities for only a limited time, and then we run out of funding and have to pull out because that is harmful for growers, it is harmful for retailers that participate, and it is especially harmful for community members that start to use that resource. So really having additional investment is really important if we want to think about how to expand into grocery and corner stores and thinking about the utilization rate that is much higher than farmers' markets. And so we just have to have that additional investment in order to do that.

Second, I would say that we also need help and more investment in the POS technology. Sometimes getting the incentive built into POS systems, which are vastly different across our retailers, especially in rural areas, they need additional technical support and resources for getting that POS to kind of talk to that incentive model. So, I would say those are the kind of two investments I would recommend is a higher incentive and also investment in POS technology that can help to distribute the incentive.

Mr. CRAWFORD. Ms. Moss, do you have any thoughts on that?

Ms. MOSS. Yes, certainly. And I would echo what Dr. Gruner said. We have encountered—

Mr. CRAWFORD. [inaudible]—

Ms. MOSS. I am sorry?

Mr. CRAWFORD. I am sorry. Go ahead, Ms. Moss.

Ms. MOSS. Oh, okay. I would echo what she said. We have experienced—so last year looking at our numbers, we were in 21 farmers' markets and ten brick-and-mortar stores. And so, when we looked at our allocations this year, we have less money because we have less philanthropic investment this year. And so, some of our grocery stores sort of pulled out because it just wasn't enough money to incentivize the additional work on their part, even though ideologically they agree with the program and they want to be a part of that. So, I certainly could almost see an additional program that was aimed at GusNIP in grocery stores instead of having grocery stores, corner markets, brick-and-mortar, mobiles, farmers'

markets, things along those lines. That would be my initial thought on it.

Mr. CRAWFORD. Ms. Moss, we know that nine in ten Americans aren't meeting *Dietary Guidelines for Americans'* fruit and vegetable consumption recommendations. We also know most fruits and vegetables purchased by USDA for distribution and nutrition programs aren't fresh. We see in programs like WIC where clients can select the produce of their choice, for example, consumers typically choose to spend most of their benefit on the fresh option. Appreciating that all forms of fruit and vegetables can help meet *Dietary Guidelines* recommendations, are you able to speak to why ensuring the families you serve have access to fresh fruits and vegetables through Federal nutrition programs is equally important?

Ms. MOSS. I am sorry, and just double-checking. Why is it equally important that families have access to fresh fruits and vegetables?

Mr. CRAWFORD. Right.

Ms. MOSS. Yes, certainly. For us, one of the things we look at is, again, I represent a lot of local agriculture, so when things are picked at the peak of freshness, it is a higher degree of nutrition. And I think there is also an amazing sort of connection to your local farmer, your local community. We don't move as much product—or product doesn't get trucked nearly as far, so that can also help reduce the prices. So, what we see in our local communities is our farmers drive, not as far of a distance, and can sort of lower the prices of these fresh fruits and vegetable items.

Mr. CRAWFORD. Thank you. I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Chairman Scott and Ranking Member Thompson, for hosting today's hearing. To our witnesses, your expert testimony clearly paints the stark reality that we were facing as a nation.

Before the COVID-19 pandemic, food insecurity was at its lowest since the 2008 recession. And although COVID-19 is receding, the demand for food aid has not receded. We can point to a perfect storm of factors, whether worker shortages or global supply chains caused by the war in Ukraine, families and households are struggling today. And Congress must rise to meet these demands.

Last week, along with Representatives McGovern and Lee, I sent a letter to the House and Senate leadership urging immediate action to prevent the hunger cliff that looms ahead when the Federal COVID-19 public health emergency expires. The non-SNAP nutrition programs we are discussing today are currently weathering the storm through the COVID-19 recovery bill passed in 2020, and I am worried about the capacity that these programs currently have.

Mr. Waide, your testimony states that over five million seniors face hunger in the U.S. One effective program discussed, the Commodity Supplemental Food Program, works to mitigate food insecurity for this population. So, what are some of your recommendations for Congress to further invest in CSFP in the upcoming farm bill?

Mr. WAIDE. Thank you, Congresswoman, for the question. The CSFP program is a really important resource for low-income seniors who face food insecurity. Many food banks around the country help operate the CSFP program, delivering really high-quality food boxes to these seniors to round out their need for nutrition. And, in the next farm bill, we recommend a number of different enhancements to the CSFP program. Number one, we think expanding access to the program would be very beneficial by increasing the eligibility determination above the current level of 130 percent of the Federal poverty line. We also recommend increasing the length of time between recertification periods to ensure that more seniors are able to participate. We recommend instituting a self-declaration of needs for determining CSFP eligibility. And we recommend tailoring CSFP food packaging to assist with meeting dietary and medical needs of seniors.

Ms. ADAMS. Well, thank you. Thank you. It is quite a list. Great. Great.

Ms. MOSS, you spoke of the successes saying that the implementation of GusNIP and the Healthy Food Financing Initiative in rural communities, of course, your testimony speaks to how hunger issues are cross-cutting across all demographics. So, although you are an expert concerning rural food security, can you speak to the overall need for increased funding for all communities that utilize these programs?

Ms. MOSS. Yes, certainly. So, these programs are competitive grant programs, which means that, as an organization or as a community, you have to apply, you have to write an amazing grant with amazing evaluation metrics, you have to have all the right partners, you have to have all the right match funding. And then, if your grant reviewer is really feeling you that day, you might get lucky and get put into a pot that might get funding. So, inherently, it is a very competitive process. And so, if there were either additional funding or the process was not competitive, I think we could see these programs really affect more communities.

Ms. ADAMS. Okay. So, can you share just a little bit more about what your participants are saying about their ability to buy and eat more produce?

Ms. MOSS. Oh, my goodness. Okay. I will share with you a story. I had a mom call me just Friday. She called me and she said, "Hey, do you know of any voucher programs for families with a type 1 diabetic child?" I said, "No, it is not really what we do," although I could point her in the direction of a few resources. And I said, "Let me tell you about SNAP Stretch." So, this mother tells me the story of the fact that they were a middle-income family, Dad got COVID, was in the hospital on a ventilator for 4 months. Now he has long COVID. He is not even the same person. His accent has changed. He is now disabled. Mom was working in a nursing home, lost her job. The child is 14 years old, and she is a type 1 diabetic, and they cannot keep her blood sugar under control, so she is consistently in the hospital. And Mom says, "I don't know what I am doing. I need to change her diet. I get \$134 a month in food stamps. What do I do?" So, I was able to talk to her about really stretching her SNAP budget.

Ms. ADAMS. Well, thank you so much. I am out of time, I think. Is that correct? I think I am out of time.

The CHAIRMAN. Yes. Thank you very much.

Ms. ADAMS. Thank you so much for the responses. I appreciate it.

The CHAIRMAN. Ms. Adams, thank you. And thank you, Ms. Moss.

And now the gentleman from California, Mr. LaMalfa.

Mr. LAMALFA. Thank you, Mr. Chairman.

To our witnesses here, thank you for being here and participating. As we contemplate the next farm bill and reflecting upon the elements that were in the 2018 Farm Bill, what would you look at would be some improvements on modifying the feeding programs, *et cetera*? Coordination, is there something that could be done on improving coordination between the agencies and such? What should we be looking at really that would get a more streamlined, better approach towards more success?

Mr. WAIDE. Well, from our perspective in the network of food banks, the farm bill has provided tremendous support to our work over the last 5 years, 4 years. We think that, again, expanding mandatory TEFAP funding levels would be a critical part of ensuring that we meet the needs in our local communities. We think there are opportunities to continue to invest in capacity. We heard from Mr. Smittcamp about the availability of frozen products and continuing to invest in capacity at the local level for freezer and cooler capacity, can help us move more high-quality produce, both fresh and frozen, in communities that need it the most.

We certainly think that there are always opportunities in terms of working with producers to have better coordination in the way that purchasing is planned out. Smaller producers in particular need to know well in advance what kind of opportunities exist so that they can get crops in the ground in time to participate in some of these contract opportunities with TEFAP.

Mr. LAMALFA. Let's go back to the refrigeration and freezing aspect of frozen foods, *et cetera*. Is that going to be a huge challenge on just the ongoing cost of electricity is no bargain these days, as well as the space required to keep such at food banks or, the others on the panel, with your way of handling business? Is that something that is really being clamored for or is it duplicative—

Mr. WAIDE. Well, the food banks around the country are investing in or trying to invest in capacity, freezer cooler capacity. My food bank completed a capital campaign and moved into a new building that is 345,000² large with 75,000² of freezer cooler space in March of 2020. The other seven food banks that are serving the State of Georgia are all engaged right now in capital projects to expand freezer cooler capacity and other kind of warehousing capacity—

Mr. LAMALFA. Well, let me narrow it down then. So, is that seen as a top priority or number one priority? Or what is really the most important thing we can be looking at as we contemplate the farm bill for those needs overall needs?

Mr. WAIDE. Yes, outside of protecting and preserving the SNAP program, the number one priority for us within food banks is mandatory TEFAP funding and expanding that. We need food. I think

certainly being able to invest, particularly for smaller food banks, being able to invest in freezer cooler capacity, and having funding sources at the Federal level can help with that. But TEFAP funding is at the top of the list.

Mr. LAMALFA. Okay. The others, what should we prioritize?

Mr. SMITTCAMP. I am sorry?

Mr. LAMALFA. What should we prioritize coming into the next farm bill?

Mr. SMITTCAMP. Well, it certainly would be—in the produce prescription side and the GusNIP would be to let in all forms so that way—because right now it is dedicated to fresh. And by having all forms, we can complement, we can complement what is going on. So, when the food producer, if we are going to go to the regional side, doesn't quite have enough crop or has an overcrop, so we can balance it with the frozen food or canned or all forms. So, I think that is the key that we are here at the table just asking for the appropriate thing for the recipient to get the healthy, nutritious food.

Mr. LAMALFA. That would be in domestic production. Would that be a priority rather than import?

Mr. SMITTCAMP. I am sorry?

Mr. LAMALFA. Domestic production instead of imported, would that be a priority, too?

Mr. SMITTCAMP. Domestic?

Mr. LAMALFA. Yes. Okay. Thank you.

Mr. SMITTCAMP. Yes, I am sorry.

Mr. LAMALFA. I yield back, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. LaMalfa.

And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is now recognized for 5 minutes.

Ms. SPANBERGER. Thank you, Chairman Scott.

And before I turn to questions, I would like to call attention to an impending deadline that is of critical importance to the well-being of our children across the country and certainly the planning for our school districts across the country. On June 30, less than 3 weeks from today, the child nutrition waivers that provide schools with flexibilities to feed children will expire. And I have heard from communities, counties across central Virginia imploring us to extend these waivers because they are valuable to schools' ability to plan for and provide those in-school programs. These waivers have been a lifeline for schools, for students, for parents, especially amid ongoing pandemic-related supply chain challenges. And a survey from the School Nutrition Association found that 97 percent of respondents were impacted by higher food and packaging prices.

With the current waivers, most schools receive \$4.56 in reimbursement for each school lunch received, and without them, most only received \$3.75. To prepare for these waivers expiring, school districts are raising prices for students for the first time in years to make up for the increase in costs. And for hardworking parents across the country, every cent counts. We can address these rising costs, including by passing my Lower Food and Fuel Cost Act (H.R. 7606) on the House floor this week. But, as we do so, we must en-

sure that children have access to healthy, nutritious food. Failure to act and extend these waivers will mean more hungry kids, higher costs for parents, and a lot of confusion and lack of planning for school districts across the country.

As we get closer to the June 30 expiration date, I urge my colleagues in the House and the Senate to heed the pleas from our local school districts, take up the bipartisan legislation, Keeping School Meals Flexible Act (H.R. 6613), to extend these waivers.

And another program, switching gears to this hearing, that I hear consistently about from food banks and pantries across our district is the TEFAP program. Now more than ever, food banks rely on this program. And the Federation of Virginia Food Banks, comprised of seven food banks across the Commonwealth, purchased 30 percent more food in 2021 compared to 2019 to keep pace with the growing need.

Mr. Waide, thank you so much for your testimony. And you mentioned that approximately $\frac{1}{3}$ of the food commodities your food bank distributed last year were provided through TEFAP. Could you talk a little bit about some of the logistical barriers or challenges that you might face with the administration of TEFAP? And as we are looking to strengthen the program, speak to some of those challenges.

Mr. WAIDE. Well, in terms of logistical challenges around TEFAP, I think the biggest challenge we are facing right now is that a number of TEFAP orders for us. Thirteen percent—for the nation-wide number it is closer to 16 or 17 percent of these TEFAP shipments—are being canceled. And obviously, that creates lots of challenges. Number one, we don't have the food coming. But, number two, we have also been planning around those shipments coming and basing other kind of purchasing or sourcing decisions on the expectation that that food would be arriving.

And so, the reason why those orders are being canceled are complex.

Ms. SPANBERGER. Yes.

Mr. WAIDE. They relate to the complexity in the broader supply chain. But that is obviously a challenge that we are facing right now.

More importantly, TEFAP is a great program. We support it 100 percent. We want to see additional funding because that food is a lifeline, in particular for smaller food banks serving smaller communities.

Ms. SPANBERGER. And, speaking of which—and I do appreciate that you had included in your comments the recommendation related to increasing funding for TEFAP storage and distribution. Pivoting to some of the smaller communities, certainly I hear from Virginia food banks about how rural distribution allows them to reach more households. Mobile distribution allows them to reach more households, particularly in rural communities. Could you comment on the impact that this flexibility for mobile distribution has had on the communities that you serve?

Mr. WAIDE. Sure. So, we have a tremendous network of community-based partners who get food from us and distribute it in their local community. We have invested in a lot of their capacity, but in times of great crisis, or in more rural communities where the

distance between pantries is larger, being able to operate mobile distribution sites allows us to get the food closer to where people are at a time when they need it. And so, it has had a huge impact for us in a variety of communities, particularly in rural communities.

Ms. SPANBERGER. Thank you very much. Mr. Chairman, I yield back. Thank you.

The CHAIRMAN. And now the gentleman from South Dakota, Mr. Johnson, is now recognized for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman.

I want to go back to the days of COVID, to the Farmers to Families Food Box Program. And given all of the constraints and the Herculean efforts that needed to be accomplished, I always felt like that program answered the bell in a most impressive way—not perfectly, but quite impressive. I just want to ask the panelists for their reactions to that. And part of the reason I ask is it seemed like some of the reputation for that program has been more modest than what I think the impressive delivery and execution was. And so how did the program work? What can we learn from that? And what are the potential uses of that kind of delivery mechanism in the future?

Ms. MOSS. If I could speak to that, so the Food and Farm Coalition works with the two food banks in the State of West Virginia. And, what we saw from that program, especially initially, is that food was not—first of all, was not coming from any farmers in West Virginia. And second, they weren't bringing food that we would consider to be culturally appropriate in West Virginia, and it was not coming in a timely manner. So, that program didn't really do well for us in our very rural state in our very rural communities.

Mr. JOHNSON. So, Ms. Moss, just to follow up because I think that is a little different than what I heard from South Dakota. But obviously, when you roll out a national program, you are going to have some high points and some low areas. And I did hear some of those complaints in South Dakota. They diminished pretty rapidly as the program got a little more mature. Did you see any improvement in West Virginia?

Ms. MOSS. I think in the second round when new contracts came out, our food banks did have somewhat better contracts for food groups coming from Pittsburgh and Philadelphia that were delivering those products. But our two food bank directors were very glad to see that program end.

Mr. JOHNSON. Yes, I mean, that is good feedback. Well, what about anybody else, other experiences?

Dr. GRUNER. You can conclude that as well in Arizona. That was our experience. The second round we did have one local dairy producer that was able to participate, but we weren't able to have a lot of our local food producers, so I think we are really welcoming the opportunity for the Local Food Purchasing Cooperative Agreement Program, which we are calling LFPA, as another opportunity to kind of take the good things that came from CFAP and invite our local producers to be part of that solution. So, I am really looking forward to the opportunities that are going to come this year, building on that program and just creating more opportunities for local product to go to families that need it the most.

Mr. JOHNSON. Okay.

Mr. BESAW. If I may pitch in, one of the things that we found in Wisconsin—and I am going to speak to Wisconsin to what we found—is that, sadly, we lead in a lot of the health indicators in a bad way with diabetes, hypertension, lactose intolerance, heart disease, reduced life expectancy. And a lot of the foods that were in the boxes were incompatible with many of our elders and some other individuals on the reservations. And it is not that we were not appreciative. I mean, we got food. So, what we had done was said this needs to push us to really look at trying to look at our sovereign food system to really look at how can we get the foods that we know are culturally appropriate that our elders can use almost in that food-as-medicine type approach? And that is where we went with that. And we have received all types of accolades from individuals. For instance, even getting—we buy from the Oneida Nation in Wisconsin. We replace—there are over 100 food items on the food distribution category. And with the 638, you can replace or supplant existing—those foods with comparable.

Mr. JOHNSON. So, sir, I have one more follow-up for you in just 30 seconds. I mean, you talk about them not being a good fit for your elders. Of course, we have nine reservations in South Dakota. Diabetes is a big concern there. The food boxes in South Dakota weren't overly high on sugar near as I could tell. Maybe your experience in Wisconsin was different.

Mr. BESAW. Yes, I think just systemically, with all of the foods, the processed foods within that, I think that caused the concern more than anything.

Mr. JOHNSON. Very good. Thank you. Mr. Chairman, I know I am out of time and so—or, Madam Chair, I yield back.

The CHAIRMAN. Thank you.

Mr. JOHNSON. Or Mr. Chairman.

The CHAIRMAN. And now, the gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations, is now recognized for 5 minutes.

Mrs. HAYES. Thank you, Mr. Chairman, and thank you for having this very important hearing.

I am trying to figure out now how I am going to get through all of my questions. And also, Ms. Spencer Moss, I am very interested in hearing the end of the story you were telling about how you responded to this parent with her questions about expanding the diet of her diabetic child.

Ms. MOSS. Yes, so fortunately, I got close to the end of the story, but essentially, it was, okay, your farm is quote/unquote, "Up a holler in a county where we don't actually have a SNAP Stretch program," but let me point you to two SNAP Stretch sites in one county over and one more in another county over that is open 7 days a week. A very, very ecstatic mama to have the opportunity to triple her SNAP—her \$134 in SNAP to try to get her daughter's diet under control.

Mrs. HAYES. Thank you. I appreciate that. And I think it ties in very nicely with the questions that my colleague Mr. Johnson was just asking. People with very specific and unique dietary needs, we really have to have programs that are malleable and flexible so

that we are not just providing food that is unusable to people who have very hyper-specific dietary restrictions, so that is very helpful. I am happy that that mother was able to connect with you.

We have heard in the hearing today that matching requirements often disadvantage rural communities, and I am talking about the GusNIP program, low-resource communities, communities of color, and smaller nonprofit organizations because they have less access to food. My question is for Dr. Gruner. How can a shift in matching requirements help these communities gain access to more fruits and vegetables? And what else can we do to ensure that these hard-to-reach or especially vulnerable communities are better served by these programs? And I will just add that one of the things that the experience in my State of Connecticut with many of the Farmers to Families Food Box, we had one Connecticut farm that was involved in the program. Much of what was brought in was shipped, packaged somewhere else. By the time it got to us, it was expired, outdated, bruised. So how do we really utilize local farmers in these programs?

Dr. GRUNER. Thanks, Representative Hayes. I think from that, first speaking to the match requirement, the one-to-one match requirement means that we have to find capital in our communities, which we work really hard to do. But I will say in some of our more urban communities, it is easier to find partners that are willing to give that match requirement. Sometimes that comes with a stipulation that it can only be used in a certain area. They want to invest in a specific site, a specific location, a farmers' market or store. So that really makes it difficult to expand to those rural communities, especially if we don't have a match partner in rural communities. So, I will say that that is one challenge that we see.

In terms of, again, just wanting to echo my previous comments on some of our rural communities don't have a farmers' market. And so, while GusNIP and the Double Up Food Bucks Program, when we originally rolled it out, it was designed for farmers' markets. To have to think about how to shift to different models that will fit our rural communities, which, again, don't have a farmers' market, but there is a really great corner store that might be a good fit. And the thing that we see with our corner stores in our rural communities is, again, just getting some of the EBT technology up and running for them is one challenge so that they can even accept SNAP benefits, and then also getting a POS system that can read the benefits and also distribute an incentive. I think that is an area that definitely needs more investment.

And then I think our model in particular, we do work on prioritizing local produce. And so, with that, we do work with our corner stores on scaling up. So, whenever they start their baseline, we try to find ways that we can connect them with local growers in the region so that we see over time they have a percentage shift in the local—

Mrs. HAYES. Thank you. I am sorry to cut you off, but I want to hear from Mr. Smittcamp before my time ran out.

Mr. SMITTCAMP. Thank you very much. Just broaden the language. That is where we are. We want to complement—frozen foods wants to complement all other sources. And so, we are there. We can get it to the small rural if they have the infrastructure to han-

dle frozen. It is all about getting the language opened up to handle all forms and then allowing us to do what we do best and get the product to the particular recipient.

Mrs. HAYES. Thank you. I appreciate that. I really need more than 5 minutes to have this conversation. Mr. Chairman, I yield back.

The CHAIRMAN. I agree with you, gentlelady. There is so much we want to do to help solve this food disparity problem.

And now the gentleman from Indiana, Mr. Baird is recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman. I appreciate the opportunity to sit in on this important hearing. I really appreciate the witnesses being here. I think the expertise that you share with us really makes us better informed to try to improve these programs. And as we look at the 2023 Farm Bill, that is a real asset to us.

I want to look at another little area. I think in many cases, food preparation can be just as important as the type of foods. So, we have these air fryers and so on now. So, I am interested in two things. Is there equipment that we could use that would be beneficial to people? And how many people have access to those sort of things? And then how much has education played a role in trying to help families identify a good nutrition program?

Mr. SMITTCAMP. I don't know anything about air fryers. My wife has one, but I don't know.

Mr. BAIRD. I don't either. But I would like to——

Mr. SMITTCAMP. But I will tell you that education is the key. There are so many things about the leafy green vegetables that we are talking about, right? And people just don't accept them. I think when I serve in some of the nonprofits back home, they just don't take the leafy greens or some of those things because they don't know how to prepare them. So, there again, we have access to a product that is already prepared for them and frozen. And so, I think that is all we are trying to do; open that language up, get the availability of the infrastructure, and then naturally educate the recipients of how to do that. And I think, more and more, agencies are doing that and seeing that need, where they are in my community.

Mr. BESAW. If I may also speak to that. The SNAP educational funding goes to states, and there is no real compulsory coordination with Tribal governments if there was a \$4 million allocation for FDPIR Tribes in the nutrition field. So, if we have those fresh products, then we want to be able to provide that type of educational training. And I think there needs to be an increase or a proportion of what goes to SNAP should come a higher proportion to the Tribes, or there should be mandatory coordination between the states and SNAP recipients and the FDPIR programs because, by all means, we provide that type of cooking and coursework. And, by the way, several of my children have the air fryer.

Mr. BAIRD. Thank you. Ms. Moss, did you have a——

Ms. MOSS. Yes, so just to follow up to my co-panelists here. So, USDA does have several programs that I think are really interesting. So, one he mentioned is SNAP-Education. We work very closely with our SNAP-Education folks that come out of West Virginia University very closely. They do amazing education in schools

with both children and also adults. And I think there are other really great USDA-funded grant programs to help out with this. So, Farm to School, for example, does farming education, but it is also nutrition education with youth, and it really helps to develop their palates.

Mr. BAIRD. Thank you. Anyone else? I would like to ask one more question in that regard. What are we doing in the schools, do you think, for these families? Are the children being exposed to better ways to eat and so on?

Dr. GRUNER. I can speak to the Farm to School Program. I think the beauty of all of these programs is that there is a lot of collaboration that happens, and Farm to School is a great area where local farmers and nutrition, the SNAP-Ed program can come in and teach kids about where their food is coming from. We know that we can only do so much to create local food. We also have to do work on both ends to increase education so that the demand for local food is also there. And that is where the Farm to School Program is just a great way that that teaches kids about where their food comes from to increase their palates.

Mr. BAIRD. Thank you very much. Anyone else?

Mr. SMITTCAMP. Well, a fun fact on that, I mean, the USDA has asked us as manufacturers to do a much more retail label so they can go on and get our website and look at education on that. We are feeding 30 million children in a day, so there is a lot of access out there.

Mr. BAIRD. Thank you. My time is out, and so I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from Ohio, Ms. Brown, is now recognized for 5 minutes.

Ms. BROWN. Thank you, Chairman Scott and Ranking Member Thompson, for holding this hearing today. And thank you to our expert panel for being here. Your perspectives are helpful as we look ahead to the next farm bill.

The COVID-19 pandemic put tremendous strain on our nation's food system. We saw our nation's hunger crisis expand our food supply chain challenge. And this is why I worked with my colleagues to introduce the FIND Food Act of 2022 (H.R. 7317, Further Incentivizing Nutritious Donations of Food Act of 2022) to meet the demand in the face of declining food donations.

So, Mr. Waide, as you mentioned in your testimony, food banks are paying almost 40 percent more to purchase nearly the same amount of food as last year, and prices continue to rise. How would additional TEFAP investments help your food bank and others across the country in the 2023 Farm Bill?

Mr. WAIDE. So, thank you for the question, Congresswoman. Expanded TEFAP funding would make a critical difference, particularly for food banks serving smaller communities where TEFAP commodities make up a much higher percentage of the total volume of food that they distribute in those local communities. Today, food banks are experiencing a decline in the volume of Federal commodities that are flowing into food banks as we revert back to baseline spending. And to offset those declines, along with declines in donated food, food banks are purchasing more in patterns that are just unsustainable. As I mentioned, my food bank next year will spend more than \$15 million to buy food for the first time in

our history. We will source more food through our purchasing activity than we will source through Federal commodities. And, again, that is just not a pattern that most food banks will be able to support long-term. So, increased TEFAP funding will help ensure that food banks have the food sourcing capacity they need to meet the demand in their local community.

Ms. BROWN. Thank you. The pandemic also shed light on many of the existing barriers to access when it comes to putting food on the table. So, Mr. Waide, communities of color and rural communities often have higher rates of food insecurity, lack adequate grocery store retailers, and are often harder to reach for food distribution. What are some of the innovative distribution models your food bank uses to help serve our neighbors in need? And how can the Committee better address hunger in communities of color and rural communities in the 2023 Farm Bill?

Mr. WAIDE. Well, I think the most important thing that we have done in my food bank to increase access is really about building partnerships with organizations on the ground level in those local communities. And that includes organizations with which we have longstanding partnerships, who really understand those local communities, and who have built capacity to serve those communities more effectively.

It also includes organizations where we built relationships kind of on the fly in the midst of crisis during the pandemic, so we worked with a lot of schools, a lot of governmental organizations, city council leaders to host mobile distributions in urban communities, in rural communities, and everywhere in between so that we could target parts of the region where we did not have existing food partners to get food there ordinarily. And that really helped us fill those gaps in a way that was critically important during that crisis. So mobile distribution, partnerships, and investments in capacity are really the keys to ensuring that every part of our region has access.

Ms. BROWN. Well, thank you very much. I know that in my community we have begun to partner with an organization such as DoorDash to help some of our seniors get access. And so those are innovative ideas that I hope we are doing research that could potentially have a greater impact.

So, an important point in closing that you touched on in your testimony, that often gets lost, is that TEFAP is not only an important program for families but for farmers as well. And so, I just look forward to working with my colleagues on both sides of the aisle to address this issue.

And with that, Mr. Chairman, I thank you, and I yield back.

The CHAIRMAN. Thank you, Ms. Brown.

And now the gentleman from Iowa, Mr. Feenstra, is recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Scott and Ranking Member Thompson, and thank you for having this hearing. And I appreciate all your testimony. It is very useful as we look at the 2023 Farm Bill as we move forward.

The Fourth District in Iowa, which is where I am from—my district, is made up of many small rural communities. Ms. Moss, you mentioned in your testimony that requiring some Federal grants to

be reimbursable has a negative impact on smaller communities. Can you speak on this more, what your thoughts are when you noted that?

Ms. MOSS. Certainly. So, almost all Federal grants are reimbursable, you have to spend the money, wait 4 weeks to 4 months to get reimbursed.

Mr. FEENSTRA. Yes.

Ms. MOSS. And this can be \$20,000, it could be \$200,000. I was actually just on the phone with one of our food bank directors who had to spend \$600,000 and is still waiting on reimbursement 6 months later. It is really challenging to maintain that kind of a cash flow if you are a small organization.

Mr. FEENSTRA. I fully agree with you. So, what is your solution? Especially, we have all these small locations in my communities and stuff. So, what could we do to create a better system when it comes to reimbursement or getting away from reimbursement?

Ms. MOSS. Certainly, there are in my mind two options. And some grant programs do allow this. They allow you to apply for an advance. But those are only very known expenses, and you have to supply a very detailed list of what those expenses are. The lady behind me nodding her head is about to tell you how much of a pain that is and how much human capital it takes to make that happen.

The other option is do what a lot of philanthropic organizations do, and they will cut a check annually or every 6 months for what you said you would need for that period.

Mr. FEENSTRA. So that would be like a grant application?

Ms. MOSS. Yes, essentially. And a lot of the programs we are talking about are grants, GusNIP, HFFI.

Mr. FEENSTRA. Yes. So with that, Ms. Moss, which programs that you discussed in your testimony are most beneficial to rural America? Again, my district, I am just thinking about it. Are there programs that are better serving rural communities and small communities than others? And how can we maximize that intent? We just started talking about the intent of reimbursements. But I am looking at things being equitable and the impact. What are your thoughts?

Ms. MOSS. Certainly. So Healthy Food Financing Initiative is fantastic in rural communities because rural communities are experiencing the big box stores pulling out, so that program really helps to have retail close by. GusNIP, of course, is a fantastic program. And this is not part of the discussion today; but, AMS has the farmers' market, local food Farmers' Market and Local Foods Promotion Programs, also fantastic farm bill programs to really maximize that local agriculture.

I think one of the biggest things is match. Rural communities just don't have the funding that cities have. Philanthropy doesn't invest in rural communities.

Mr. FEENSTRA. Exactly. I tend to agree with that. Do you look at a private-public partnership, meaning that, would there be a way that we should incentivize—I think of my larger grocery chains, things like that, where we can give them some incentivization to help our local food banks and things like that?

Ms. MOSS. I think my colleague to the left would probably be better suited to speak to that. And I think there are a lot of partnerships with food banks.

Mr. WAIDE. Well, certainly the majority of food banks in the country are located in smaller communities. And in the State of Iowa there are several outstanding food banks serving that state that are doing a lot of innovative things to grow capacity in the state. I think we have a lot of incentives in place to encourage large grocery store chains to donate and to support food banks and other charitable feeding programs. And certainly, just enhancing those incentives can continue to grow our partnerships.

I think probably the biggest thing to contemplate in increasing access in local communities that are in the food banks serving the smaller communities is, one, to beat a dead horse, TEFAP funding is really critical. So, my food bank, large metro area, 30 percent maybe of our food comes from Federal commodities. In a smaller community like those serving in Iowa, it will be over 50 percent Federal commodities.

Mr. FEENSTRA. And I appreciate you saying that. I just look at—I mean, my in-laws, we have a large cattle operation, a hog operation, and stuff like that, and I think there is always, to me, opportunities not only with grocery but also the agricultural producers on how we could partner up and help food banks and stuff like that.

Thank you. I am out of time. I yield back.

The CHAIRMAN. And now we recognize the gentlewoman from Maine, Ms. Pingree for 5 minutes.

Ms. PINGREE. Thank you so much, Mr. Chairman. Thank you for holding this important hearing and thank you to all of our panelists. You do wonderful work, all of you, and I really appreciate it. And you are really helping to inform our Committee as we look into the future of the farm bill and other funding issues that we have to deal with.

So, let me just start with Mr. Waide. Thank you for the great work you do at the food bank. And I think in the last answer you said you hate to keep beating a dead horse on the TEFAP program, but as far as I am concerned, you can keep beating that drum as long as you want because I am particularly concerned about what is going to happen when we revert to pre-pandemic levels. And you have talked about that quite a bit, so thank you for emphasizing that.

I just want to ask a somewhat more obscure question, but it is something we have heard about. We are served by the Good Shepherd Food Bank here in Maine, and they do an incredible job. But they brought up to us some challenges with The Emergency Food Assistance Program, where the implementation guidelines limit participating agencies to 501(c)(3) nonprofits when their partner networks now includes schools, hospitals, and municipalities. I am just wondering if you have had similar experiences and if you have any suggestions about that challenge?

Mr. WAIDE. Well, we certainly work a lot with schools in our community, and we work with a variety of other entities. As I mentioned, during the pandemic, we worked with a number of municipal governmental leaders to host food distributions. And doing

that did create some complexity in how we distributed TEFAP products and other federally funded types of products. And so increasing flexibilities is something we would always support. It just helps us move faster to get food to where it is needed.

Obviously, we have to balance that against the need for accountability and the need for organizations that have good operating practices, know what they are doing to handle food safely, and that can adhere to other kinds of standards. But we think we can accomplish that while still maintaining greater flexibility that allows the whole system to move faster.

Ms. PINGREE. Well, thank you for that. Maybe that is something we could look into the future in terms of that flexibility. So that is an important point, I think.

Dr. Gruner, you, again, are also doing great work. And thank you for all of your testimony today. I am really interested in the locally sourced side of this. I think, particularly now with the supply chain issues that we have worried about and are working on, the more we can do to expand those local networks is really important. And in previous farm bills, I have worked on the language that allowed SNAP beneficiaries to shop at farmers' markets like everyone else, so that is very important to me.

I know there have been some concerns raised about insufficient access in rural communities, which is kind of ironic, since it is in the rural communities that we are producing so much of the food. I come from a very rural state. And I know you have already talked about this a little bit, but do you have anything else to add about the challenges that we could address or successes that we can build on when we are prioritizing locally grown food through GusNIP?

Dr. GRUNER. Yes, I think in addition, GusNIP, having the model that prioritizes local food I think is really important, but I also think that when looking at all the different programs that are in the farm bill, I think there is a really untapped resource with our small local producers, especially in our rural areas. So smaller programs like the Senior Farmers' Market Nutrition Program, which utilizes local produce, is another great complementary program that, again, I think just having an additional investment in that program and additional admin dollars could really help to expand and purchase that product from local producers. Especially sometimes in our smaller farms, it is really hard to get larger distribution trucks in those areas, so being able to have smaller programs that can navigate and source from our farms and our rural communities can be really helpful. So, I see all of these programs as really being complementary. And, I know it was already mentioned, but, LAMP is a great way that can help with that coordination of all the programs because I think all of these programs play a role. So, I am really looking at ways to invest in our small local producers as a solution.

Ms. PINGREE. Thank you for that. And thank you for always mentioning LAMP. That has been a really important part of the work that we have been doing in enhancing that. And so, we appreciate hearing that it is working.

I am going to run out of time, but, Ms. Moss, thank you too, for your work. And I was really grateful to hear your story about helping the family with the diabetic child. And that is another reason

to work on the Produce Prescription Program as a way to tailor making sure that people get the food and nutrition that they need for their families. So I am out of time, but I will yield back. Thank you so much, Mr. Chairman.

The CHAIRMAN. And thank you.

And now the gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. Thank you, Chairman Scott, and thank you to all our witnesses for appearing before the Committee today, definitely an important topic, and so I am just going to jump right in.

Mr. Waide, your testimony alludes to Feeding America working to quote, "End hunger with the food, people, and big ideas required to ensure our neighbors have the nourishment they need to lead healthy and productive lives," end quote. Feeding America has been around for more than 40 years and has seen increased participation in programming, receives billions, with a B, from the Federal Government, and spends millions of dollars on advertising. What started as a clearinghouse has really become a monopoly in the distribution space. Can you walk me through the big ideas the organization is currently thinking through to reduce reliance on food assistance and indeed help families lead healthy and productive lives?

Mr. WAIDE. Sure, I would be happy to answer that question, Congresswoman. I think it is really important to start with really understanding what food insecurity is and looks like. The vast majority of folks who identify as food-insecure, who get food through our network, who participate in Federal programs like SNAP, they aren't a part of these programs permanently. And in fact, whether you look at SNAP or you look at participation in feeding programs like those operated by Feeding America, the duration that people spend in these programs is generally less than a year's worth of time. And then they get back on their feet after they have navigated a crisis and are able to provide for themselves.

So, we have been around for 40 years. We have expanded food distribution over those 40 years. And I think we have done that to great end to help ensure that people get out of crisis faster and that our response to crisis is more effective and durable.

So, the innovations that I think you are asking about relate to our ability to enhance the quality of the food that we are distributing compared to what we were doing 40 years ago. More than half of the food that we distributed during the pandemic was either fresh or frozen. We have increased access to nutrition education during that time. We have increased partnerships with workforce development programs to help people get access to better careers over time. And we have increased partnerships with other kinds of service providers in the healthcare space to improve health outcomes over time. So, I think what we have seen through the investment that we have been privileged to enjoy from both Federal sources and the private-sector is that, as pressure has increased over the last 40 years on low- to moderate-income families, that we have helped those families have better life outcomes than they certainly would have otherwise.

Mrs. CAMMACK. Well, and Dr. Gruner, I will submit a follow-up question for the record, but I am running out of time, so I am just going to jump into my second question.

Feeding America states that for every one meal provided, SNAP provides nine. Does it make more sense to shift the hundreds of millions spent on TEFAP to SNAP or incentive programming, each of which provide choice, flexibility, and more immediate solutions for families in need?

Mr. WAIDE. So, we think the safety net that is provided by the combination of these nutrition programs are complementary and important to be taken together. SNAP is a much larger program, and the spending on SNAP is about 20 times what it is on TEFAP. So certainly, SNAP is a critical part of the response. That said, TEFAP is a unique program that really helps respond to opportunities in the agricultural market to take advantage of surplus food and get it to people who need it, while also supporting America's farmers. So, we don't think canceling that program out would continue to support our farmers in the way that TEFAP does today. And we also think it would be a net loss to the families that we serve collectively in the hunger relief space.

I would also say, you mentioned a monopoly in the feeding programs. It is important to remember that Feeding America works with 60,000 community-based programs across the country, $\frac{2}{3}$ of which are faith-based organizations, probably a significant percentage of which are led by BIPOC leaders and a significant number of which serve majority minority communities.

Mrs. CAMMACK. So, Mr. Waide, my time has expired, and so I want to be sensitive to the Chairman's time. I would just like to follow up with I do believe there is a licensing fee that many of those entities have to use in order to use the Feeding America name. But with that, I yield back. Thank you.

The CHAIRMAN. Thank you. And now the gentlewoman from New Hampshire, Ms. Kuster, is now recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman. And thank you, Mr. Waide, for bringing up the health benefits. I think Ms. Schrier and I both serve on both the Health Subcommittee on Energy and Commerce and on Agriculture. And I would love to have a joint hearing at some point about the health benefits of these important issues and programs in the Nutrition Title of the farm bill, not just SNAP, but these nutrition programs that take a holistic approach to food security and the safety net, but also to helping families address health issues, the most expensive health issues, diabetes, heart disease, obesity. All of that can benefit from the work that you are doing not just to mitigate hunger but help stabilize families and help them address their health and well-being, eating more fruits and vegetables, eating those leafy greens that we have talked about this morning.

That safety net is more critical than ever as we recover our supply chains from the height of the pandemic and navigate the food and fuel shortages stemming from Russia's unconscionable invasion of Ukraine. We know that the results of the pandemic and the war are higher prices at the grocery store and leading to greater reliance on food banks and community resources at a time when they are already stretched thin. And so, it is so important today that we

talk about how we reduce costs, but also how do we provide that important safety net.

And for me, a big part of this, as Representative Pingree brought up, is having food grown closer to where it is consumed because we can bring down those high transportation costs, the trucking, the shipping, *et cetera*.

Mr. Waide, you noted in your testimony that Congress helped fill the gap during the pandemic by authorizing \$1 billion in additional funding for the TEFAP, The Emergency Food Assistance Program, but we are far from out of the woods. Just like the experience in Georgia, I have heard from the Community Action Program in New Hampshire that handles our TEFAP contract about the challenges of acquiring the items they need to feed families as food and transportation prices rise.

Mr. Waide, could you elaborate on how the additional TEFAP allocation helped sustain your operations during the peak of COVID, and why the mandatory funding level needs to be increased in the next farm bill?

Mr. WAIDE. So, simply put, we would not have been able to meet the need in our local community were it not for the extraordinary Federal response in expanding access to commodities. The demand would have just far exceeded the supply available from donated sources of food. And we certainly could not have closed the gap with our own purchasing resources.

What we know, going forward, is that demand right now is growing again due to the pressures that families are facing with higher costs for food and gas and other basic needs. We do not think that is a challenge that will last only a few months. We think it will be with us for a longer period. And, for food banks and other organizations to continue to respond to their community and meet the needs in their community, we need more food. Being able to provide all that food with our own purchasing resources is not a sustainable solution. It might be something we can do over the course of a year or two, but having a higher level of mandatory funding for TEFAP in the next farm bill will help ensure a predictable, robust supply of food for emergency food providers over the long-term as we continue to work to meet the need for increased levels of demand for food assistance.

Ms. KUSTER. Thank you. Now, let me turn to the Senior Farmers' Market Nutrition Program, which I believe is an incredible win-win program for vulnerable seniors and for our local farmers. Dr. Gruner, I appreciate in your testimony you called this program tiny but mighty. The connections this program allows seniors to make with fresh, local food, as well as other community resources, are invaluable, and it also supports our small farm economics, just like the farmers in my district in New Hampshire.

Dr. Gruner, we have heard the program is drastically oversubscribed nationally. Can you tell us roughly how many more seniors you could be serving with more funding in the program?

Dr. GRUNER. Representative, I realize your time has expired. I am happy to follow up in written comments if that would be helpful.

[The information referred to is located on p. 1104.]

Ms. KUSTER. I apologize.

The CHAIRMAN. We appreciate that so much.

Ms. KUSTER. I wasn't tending the clock.

I yield back.

The CHAIRMAN. No problem. And the gentleman from Georgia, Mr. Allen, is now recognized for 5 minutes.

Mr. ALLEN. Well, thank you, Mr. Chairman. And, Mr. Waide, you have mentioned the partnerships with farmers to minimize waste products. Do you have any ideas for how a similar partnership could be created for any of the USDA programs in order to create more access to fresh, local products while utilizing the excess products of farmers, how that could be integrated?

Mr. WAIDE. Well, I think—and, Congressman, good to see you again, and thank you for the question. I think TEFAP is already engaging a wide variety of producers as suppliers to the TEFAP program. I think work can certainly be done to broaden participation of producers in the existing TEFAP program. And we certainly encourage AMS to do that as part of their ongoing activity. We also think that there are opportunities to invest in the capacity of smaller local producers, including socially disadvantaged producers, so that they can participate on an ongoing basis in TEFAP contracts more effectively.

And then there are always opportunities to take lessons learned from programs like the Farmers to Families Food Box Program to find ways to respond with greater agility and speed to market opportunities to get that high-quality product where it is needed, when it is needed.

Mr. ALLEN. Well, your comments are important here and your input is important, because we will be working on a new farm bill in the next Congress, and we want to see how these non-SNAP USDA nutrition programs are working and the improvements that we need to make to those programs to make sure that we are doing everything we can do to make sure folks get good and nutritious food.

This is a question for all of our folks who are here testifying today. Much of the testimony we have received thus far in the 117th Congress, including today's, includes calls to strengthen programs. And, of course, when I hear calls for strengthening, I immediately think of we need additional funding. And for our witnesses today, seeing Title IV alone will cost taxpayers more than \$1.1 trillion over the next 10 years, how do you reconcile that with your programmatic recommendations? And we will start off with you, Mr. Smittcamp, I believe, if I am reading that correct.

Mr. SMITTCAMP. Well, I guess if I understand the question, how do we recognize when the cost of fuel is going up, how we can supply all the things that we need to do? But I think in the frozen food world, we are probably the most efficient folks to be able to produce a pound a serving that needs to go to these communities. So, with that, I believe the frozen food industry is doing their job to continue to eliminate waste, give a value and complement what fresh is when they run out or when they have oversupply. So, I think in the frozen food industry we are trying to do—and with regard to the TEFAP money, when we are a lot of a bonus buy, when there is an excessive crop, wherever it might be, whether it is peaches, strawberries, or berries, it comes in and it definitely shows on the

farmer side, which were all very important, that the farmer's side, it raises the fresh market up to a nice parity. So, the TEFAP program is good.

Mr. ALLEN. Good. And so, it sounds like that your threats are external things you can't control and so that is going to be part of your ask. Ms. Moss, what do you have for us as far as what you can do to—

Ms. MOSS. In terms of a rationale for the line item?

Mr. ALLEN. Right.

Ms. MOSS. In my lifetime I have seen a consolidation of agriculture. There are a lot of big corporate farms in America, and we don't see nearly as many small farmers as we did when I was a kid. I am not that old. And so I think that is for a couple of reasons. One of it is farming is hard work. Farmers don't get a fair shake. There has not been a lot of investment in our local farmers, particularly those that are producing food.

Mr. ALLEN. Right.

Ms. MOSS. And so, I would say that this is really an investment in your local agriculture, which is really a homeland security issue as well.

Mr. ALLEN. Sorry, I am out of time. And, Mr. Waide, if you will provide us something to that question to us in writing, I would appreciate it. Mr. Chairman, I yield back. Thank you.

[The information referred to is located on p. 1102.]

The CHAIRMAN. Thank you very much. And now the gentleman from California, Mr. Carbajal, is now recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. And thank you to all the witnesses testifying today. The work you all do in administering these very important programs is essential to providing people across the country with nutritious food and preventing millions from going hungry.

As we prepare for work on the next farm bill, hearing from you all is extremely important to these programs so that we can best serve the people who most need them in our planning.

Mr. WAIDE, USDA recently launched the TEFAP Fresh Produce Box Program to help address a lack of fresh produce available through the TEFAP food list. This serves to complement the fresh produce food banks are purchasing privately. Can you talk about the importance of ensuring clients have options to access a wide variety of produce when they visit a food bank?

Mr. WAIDE. Thank you for the question, Congressman. And it is a really important consideration. The families that we serve, in particular, lack access to fresh produce. It is harder for them to access because it is not as available in the grocery store serving their communities, or because it is just not something they can afford and certainly can't afford to see go to waste. So, having good variety is critical to our meeting their nutrition needs.

We in the nation's food banks have dramatically grown our distribution of fresh produce over the last decade. And we still have a lot of opportunity to increase the volume and variety of produce that we are distributing. Having more options for where we source that produce, for the format and packaging of what that produce shows up to our food banks looking like so that we can give clients options, allows them to have more choices, to find products that

meet the needs of their families, the preferences of their families, which is what any of us want when we go to the grocery store. And so that variety is really critical to increase access and utilization of produce for food-insecure families.

Mr. CARBAJAL. Thank you.

Dr. Gruner, it is great to hear about the success Arizona has had in implementing the GusNIP program. I am very supportive of helping SNAP recipients get more bang for their buck. Can you walk me through some of the challenges you faced when implementing this program and how Congress can best support the Nutrition Incentive Hub to make sure that the needed resources are available to other organizations?

Dr. GRUNER. Yes, I would be happy to. I think the first thing is just when we have any site that is available, is getting them onboarded with EBT equipment. Not all of our farmers' markets are eligible sites that are receiving local produce are able to receive SNAP benefits. So, I think that is where we see the biggest amount of our technical support right now is just making sure that they have EBT processing equipment and are part of that registration. And then, I think ultimately it's just outreach and making sure that participants know that they are eligible and that they can find a location, so I think we see a significant effort in our outreach and finding creative solutions for reaching lots of different families across our state. So, I think those are the two areas where we see significant challenges.

We are really lucky that the evaluation component, again, is with that Nutrition Incentive Hub. That has really helped to streamline and create a really comprehensive evaluation. So, I think in the next couple of years we are going to have some really great data from all of our states across the nation to pull together. So, I think having that uplifted to a broader approach is going to be really helpful as well, so we are not having to do all of the evaluation from scratch. So, I think those are just a couple of the ways that we see some challenges that we faced.

Mr. CARBAJAL. Thank you very much. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from Washington, Ms. Schrier, is recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman, and welcome to all of our witnesses. Today, I would like to focus on The Emergency Food Assistance Program, or TEFAP. Over the past few years, we have all had many discussions about the issues at food banks, huge increases in demand like you pointed to in your testimonies, long lines, distribution challenges, sometimes more donations than food banks can even handle because of storage limitations, refrigeration space. And I think that this has all really ignited an important and urgent conversation about what our food systems, writ large, should look like.

I want to first just highlight the incredible work of two organizations in my district. First, the Bonney Lake Food Bank is charting a new path forward for the operation of food banks and food pantries. They saw a 700 percent increase in customers due to the COVID-19 pandemic. And because of that, they began developing a new food insecurity project that focuses on increasing access for

the surrounding area by building in consideration of convenience for customers and transportation and help with language barriers. And they are also supplementing the TEFAP foods that they receive with weekly purchases of fresh produce from nearby farms to create a food bank that really looks and feels more like a market.

The second that I would like to really highlight is Cascadia Produce, a food aggregator and distributor in Auburn, Washington. In response to some of the systemic barriers preventing small and underserved farmers from accessing market opportunities, Cascadia Produce is championing a new model of coordinated collaboration to act as an incubator and create a path for underserved food businesses to bid and execute future contracts on their own. And this work is ensuring that communities throughout Washington are fed by local farmers in a way that creates jobs, sustains local farms, and strengthens the entire food network.

I wanted to share these examples because I think this is the kind of work that TEFAP can and should help to support. And Federal investment through TEFAP and other feeding programs we are discussing today, it really has the potential to act as a catalyst for creating circular local food systems that support our family farms while also feeding our communities. So, that is why I am working on legislation that would improve our food and agricultural supply chain by modifying the procurement side of TEFAP to provide emergency feeding organizations with better access to healthy, locally grown food.

Mr. Waide, I have a question for you. In meeting with stakeholders throughout my district in Washington State, one thing I have heard time and again is the need for work to be really locally led. People have told me that the pandemic food box program for example, however well-intended—and it was really well-intended—demonstrated that the Federal agencies just don't have the on-the-ground local knowledge and connections to adapt to the need of every different community and different food banks with different capabilities. So, I wanted to ask you, Mr. Waide, about your view here. How did the Atlanta Community Food Bank work to get food, as you said in your testimony, to the people who need it, when and where they need it during the pandemic?

Mr. WAIDE. Well, I think—and thank you for the question. The key to our success in being responsive to the needs of the community is that we have built, over more than 40 years of practice, really deep relationships on the ground in communities across our region. And so, we are there to engage, educate, and empower the community to fight hunger, which means we are providing resources and platforms including food, including investments and transportation capacity, refrigeration capacity so the folks who really understand what need looks like in their local neighborhoods have what they need to really take care of their neighbors. Those grassroots relationships we were able to really lean on and activate to an even greater degree during the crisis so that we could stand up mobile distributions in places that weren't being served as well as they needed to be so that we could change operating models on the fly, to respond to needs in those local communities.

Ms. SCHRIER. Thank you.

Mr. WAIDE. Yes.

Ms. SCHRIER. I really appreciate those relationships. That is why the legislation I am working on now is really going to get funding hopefully to the states to get down to the most local communities to do exactly what you have done and be able to purchase local food farmed locally to food banks and solve hunger. Thanks very much. I yield back.

The CHAIRMAN. The gentleman from California, Mr. Panetta, is recognized for 5 minutes.

Mr. PANETTA. Thank you, Mr. Chairman, and thanks to all our witnesses for participating in this very important hearing, especially on the evening before the farm bill coming up in 2023. So, I appreciate you discussing something that is going to be and is very important to my district on the Central Coast of California.

Recently, I led a bipartisan letter with my colleague Shontel Brown and the late Congressman Don Young, requesting an additional \$900 million to support The Emergency Food Assistance Program, TEFAP, as we have been discussing, obviously identifying the urgent need to resource this vital program.

I am continuing, though, to hear from food banks in my district about how critical TEFAP is so that they can meet their demand for food. And I think we all know that food banks, as well as families, are being squeezed by the cost of food, fuel, and other basic needs, especially at this time.

Mr. Waide, I am going to hit you up again. I know you have been busy in this hearing, as I have been seeing, but I am going to rely on your expertise to answer this next question. Go ahead and describe what the Federal drop in commodities has meant to food banks, and what can be done in the upcoming farm bill to ensure food banks who literally are the final backstop in the Federal Government's safety net? What can be done to ensure that they are adequately resourced?

Mr. WAIDE. Well, thank you, Congressman, for the question. As I have indicated throughout this hearing, food banks right now are responding to the decline in Federal commodities by buying more food with private resources. We are expecting a 40 percent decline in the volume of TEFAP food in the coming year collectively. And in response to that, we are trying to fill the gap with purchased food because we are also seeing challenges in terms of donated food due to other issues in the supply chain.

For my food bank, as an example, prior to COVID, we were spending approximately \$6 million a year in total food purchasing activity. In the coming year, we will spend more than \$15 million on buying food. So that is 2½ times what we were buying prior to the pandemic. And, my food bank compared to most food banks in the network is very well-resourced. And, even for us, if we were to do that indefinitely, it would become very challenging to sustain our operations.

So expanded TEFAP funding—and we are recommending \$450 million in annual mandatory TEFAP funding in the next farm bill—would help reduce that dependency on buying food and give us more resources to invest in programming, to invest in trucking, to invest in grant-making to our partners so that we can really build our distribution capacity to get food where it is needed.

Mr. PANETTA. Great. Great. Thank you. I appreciate that.

Dr. Gruner, I got two for you. Obviously, you understand the importance of using SNAP, especially, to buy fresh fruits and vegetables, but also at farmers' markets. And unfortunately, there are some barriers there that SNAP beneficiaries have in using their benefits at farmers' markets. What are some of those barriers, and how can we make it a little bit easier for people to use their SNAP benefits at farmers' markets?

Dr. GRUNER. I will take a perspective from our rural areas. Just having EBT equipment that connects and that can read cards, so connectivity broadband is where we definitely need investment for our rural communities so that they can have SNAP equipment that can read EBT cards so that beneficiaries can even participate in the program or even use SNAP benefits at farmers' markets. So, I would say that is one of the primary things that we see, just an additional investment and a need for technology support in our rural communities.

I am sorry, you had one more, so I want to just give you an opportunity—

Mr. PANETTA. Thank you. Real quickly on the GusNIP, how can we utilize online SNAP to improve user experience and increase access to fresh fruits and vegetables through the use of GusNIP?

Dr. GRUNER. I would love to submit some more—it is a complex answer, but I will just say I am thinking about online SNAP has to be part of a solution for how we think about modernization, and using the farm bill to really lay that groundwork work is really important, so it has to be part of how we think about it.

Mr. PANETTA. Outstanding. Thank you. Thanks to the witnesses. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. And now the gentlelady from Ohio, Ms. Kaptur, is now recognized for 5 minutes.

Ms. KAPTUR. Thank you, Mr. Chairman. What an outstanding set of witnesses you have gathered today. And I want to thank you all on behalf of the people of Ohio that I represent for the tremendous job that you do in representing all of America. Your experience will influence us in drafting this farm bill.

And I wanted to just mention that in another bill Congress passed, which is the Infrastructure Investment and Jobs Act (Pub. L. 117-58), there is funding there for energy systems, new energy systems. Many of the food banks and even farmers' markets that we operate around the country could be much more efficiently run if they had modern power and even some generator backups for some of our freezers and some of our food banks. I would urge you to look at that bill and put together a—you would have to give it a name, a food network plan for the regions that you represent, whether it is West Virginia, California, Georgia, wherever it might be, and take a look at that bill. And also, on broadband, which Dr. Gruner just mentioned, there is funding in that bill that could really help you do the work that you are attempting to do. And I thank you on behalf of the country.

I will be real quick and say my goal in participating in the farm bill drafting will be to strengthen local agriculture in this country. And I have heard that from many of you. And another goal of mine is to improve nutrition and the elements of that so the younger generation understands what it is to grow food and harvest a crop.

We are far from that in our country, and it is hurting us. It is hurting us as a country.

So, I am very interested in that, Mr. Besaw, I listened to you use the term *shorten the food chain*. I know he is up there on the computer somewhere. But I am somebody that wants to do that. And Ms. Schrier, Representative Schrier used the term *circular food system*, and I just am sitting here applauding. So, I believe that what American farmers grow, grows America. And when they get harmed, boy, we are in trouble. And too much of our food is imported. I grew up in a family market. We used to go over to Indiana, pick up the best melons in the world. The other day, I went to shop at a produce market and the melon came from Honduras. There are climate refugees from Honduras. I look at that and I say to myself, "Am I taking food from someone in Honduras?" I don't really know. But I want to support local agriculture in this country.

I am asking myself the following questions. Mr. Waide, do food banks in your network have the ability to contract with local farmers in order to move product to your food bank? I don't know if you are authorized to do that. I would like to know that. I will ask these questions very quickly.

Dr. Gruner, I would like to ask you, in terms of the Senior Farmers' Market Nutrition Program, the coupon program, it is so popular. Why does it only function in maybe one Congressional district per state in this country?

And number three, how do we encourage local schools to get food from local farmers? How do we move into those school nutrition contracts? What can we do in the farm bill in that regard? So, anybody that wants to address any one of those three, I am really interested in your answers. Thank you.

Mr. WAIDE. Well, I can quickly answer the first question you asked me. We do source purchased produce from local farmers. The point I would emphasize, though, for you all to consider is the local producers, including socially disadvantaged producers in our region, what they really want is access to markets and customers, right? And so, working with food banks is great for them, but, more importantly, they need customers. And the key enabler for them is going to be access to capital and investment in their capacity. And so, in addition to helping folks participate more regularly in the TEFAP program as suppliers, the more we can do through a variety of programs, with the farm bill, with FSA programs, is help these smaller producers get access to capital to invest in their capacity so that they can build customer relationships.

Ms. KAPTUR. I agree with you, Mr. Waide. I don't want to cut you off, but in terms of what we can do through the farm bill, we can empower our local food banks to buy from local farmers because our local farmers are the major donors to our food banks, at least where I come from. And I am going, hey, how come they can't get a contract to grow cucumbers and tomatoes and so forth and move those into the food banks? But it is my understanding that that isn't so easily done in current programs. I don't know if anyone else wishes to comment on that.

But I did ask two other questions, one about how we can improve the ability for local schools to buy local from farmers and producers. And then in terms of the Senior Farmers' Market Nutrition

Program, how can we make it a national program rather than diddle around in one Congressional district and half the states?

The CHAIRMAN. If you don't mind, your time has expired. But that was a very important question, and we would appreciate it if each of you could respond to Ms. Kaptur in writing.* And I thank you for that, Ms. Kaptur, and for your wonderful—oh, okay. Mr. Lawson?

Mr. LAWSON. Thank you, Mr. Chairman. Thank you. I am having some difficulty on the computer, but now, I think—first, I want to thank you—

The CHAIRMAN. Yes—

Mr. LAWSON.—Mr. Chairman and Mr. Thompson, for holding such a great hearing. And, hunger is a serious issue among seniors. According to the recent data from Feeding America, nearly 5.2 million seniors were food-insecure during 2020, which is incredible. Dr. Gruner, you had heard that the Senior Farmers' Market Nutrition Program is drastically oversubscribed nationally. Can you tell us roughly how many more seniors you could serve with more funding? Dr. Gruner?

The CHAIRMAN. Yes, Mr. Lawson, can you repeat the question and who you directed it to?

Mr. LAWSON. Yes. Mr. Chairman, I don't know whether you can hear me, but it was directed to Dr. Gruner. I was talking about the 5.2 million seniors that were food-insecure in 2020. And my question was, we have heard that Seniors Farmers' Market Nutrition Program is drastically oversubscribed nationally. And I was asking, Doctor, can you tell us roughly how many more seniors you could serve with more funding?

Dr. GRUNER. Thank you, Representative. I think where we see opportunity is we also need an additional investment in admin. When we talk to some of our neighboring states, I think where we see commonality is a lot of us are limited in how much outreach we can do. And so, speaking of the program only being in a couple of Congressional districts, that is really because the personnel time is so strapped, especially in a state like Arizona. We are the sixth-largest state, and so getting to all of our rural communities and getting out and transportation there and getting programs up and running there, technical support there, and then also just distributing coupons or whatever the incentive model there is, is quite challenging. And so I think additional admin would really help us to expand our capacity.

In Arizona, we served just over almost 1,400 seniors last year, but we are also capped at whatever our CFAP program is, a that is like one of the entry points. We have created an additional way that we can do an eligibility waiver. But essentially, it is really tied closely with our CFAP. So, I think these programs work really closely together. But, ultimately, we have farmers that are available and willing to offer product. We just need personnel and resources to be able to expand into other communities and reach more seniors. So, I would say that we don't necessarily have a number I can say, but I would say just additional admin time would help not just Arizona, but some of our neighboring states as

* **Editor's note:** the response from Dr. Gruner is located on p. 1103.

well to really expand to reach some of those hard-to-reach areas of all of our states.

Mr. LAWSON. Okay, thank you very much. And, Mr. Waide, thank you for all the work that you are doing in Georgia distributing food during these difficult times. I am very interested in Atlanta Community Food Bank's work and with housing, health services, job training, and other critical support. The kind of wrap-around service that you provide can change the lives during this time. So, are there any restrictions on TEFAP that prevents you from offering more support services?

Mr. WAIDE. There are no restrictions in TEFAP that prevent us from offering more services. The way we typically do that is by partnering with other organizations that are experts in those areas. We are really good at moving food. We are really good at building partnerships on the grassroots level and investing the capacity of other organizations. Those other organizations are really good at job training or other kinds of healthcare type of provision of services, and we really leverage their expertise.

I think the key thing that could always make a difference is expanding eligibility for TEFAP. Right now, about 57 percent of the people we serve earn too much money to be eligible for TEFAP, and so we could serve more of those people more food and do more work for them if that eligibility threshold were lifted to a higher number.

Mr. LAWSON. Thank you very much. Mr. Chairman, my time is running out, and I yield back.

The CHAIRMAN. All right, thank you very much. And now we have reached the end of our hearing. And we want to first of all thank you. And then we are going to have some comments from the Ranking Member and then my closing statement as well.

So first, Mr. Kyle Waide, President and CEO of Atlanta's Community Food Bank, we want to say thank you. And we are committed to helping secure this additional \$450 million. I believe this Committee—and I think you have heard from them—share this goal as well. And with the help of my good friend, the Ranking Member, I believe we will be able to do it.

And now, Mr. Gary Besaw, Director of the Menominee Tribal Department of Agriculture and Food Systems, we want to say thank you to your excellent testimony.

And to Dr. Jessie Gruner, Director of Community Innovations, Clinical Prevention, thank you very much.

And for Ms. Spencer Moss, Executive Director of the West Virginia Food and Farm Coalition, thank you for your very informative testimony.

And Mr. William Smittcamp, President and CEO of the Wawona Frozen Foods, testifying on behalf of the American Frozen Foods Institute, thank you for your excellent testimony and presenting that very important perspective from our frozen foods. They play a very important role.

And now with that before I give my closing statement, Mr. Ranking Member, I recognize you.

Mr. THOMPSON. All right, Mr. Chairman, thank you so much. Each of the witnesses, thank you for bringing your experience, your expertise, and obviously your passion in this realm. Nutrition is incredibly—Title IV of the farm bill, the Nutrition Title is a very im-

portant title, as important as any other title in the farm bill. And quite frankly, this is about—I think Title IV for me summarizes what I have come to identify as a rural value, maybe an urban value, too. I have never lived in urban America, so I am not sure. But a rural value is neighbors help neighbors in need. And part of that is making sure that we look at it from a broad perspective.

Certainly, as was pointed out, in a lot of the testimony I heard today, it is recognized that financial distress, poverty, whatever we want to call it, financial challenge is transitory. People enter in and they are either in or out. I don't think we will ever end poverty, but the goal is to help people stay there for a short period of time when they find themselves in difficult financial situations, whether it is because of nothing that they did, or quite frankly, bad decisions, whatever would put them in that.

And so, I think that that is why, not only making sure that folks are getting access to nutrition, I think nutrition comes in many different ways. Frozen, fresh, I don't get too hung up on how things are packaged. But, in addition to that, I think we have an obligation here to make sure that we are helping people effectively move out of poverty, out of financial distress to the point that they don't need these programs. And that is why we have the SNAP-Education programs. That is why we have the education, call it training, although I will say, the Ranking Member in the Education Workforce Committee would take argument with that because she says we train dogs and we educate people. And I don't argue with her, so I am okay with that.

And we have great programs to do that. We reauthorized the Perkins Act (Pub. L. 115-224) for education, laborers, career and technical education. We have great opportunities. We expanded apprenticeships, so we have different ways to move people out of poverty. And we need our partners who are there to help people land softly, let's say, when they find themselves in financial distress, get the proper nutrition they need. They help us be partners to move these folks so that they can realize the American dream because the American dream is not being stuck in financially difficult circumstances, obviously. This country offers more than that.

I think we also have to be looking—and I know it was part of my opening remarks—of what puts people into poverty, these inflation prices, which I think are self-inflicted at this point when you look at energy policy, when you look at regulatory policy. It is just incredible where inflation has come to over eight percent, a new record just this past week. And so, we need to—we in terms of us, Members of Congress—we need to be looking at what can we do in order to correct the course of the policies we have seen over the past couple of years that lead people into those poverty circumstances.

So, we have a stunning statistic, and I am going to round off numbers, I apologize if I get it wrong by a decimal point. But there is somewhere in the neighborhood of 11.2 jobs open and available in this country today. That is more than maybe any time in our lifetime. And unless I am incorrect, I believe there are about 11 million people that have been on the SNAP program, and that is the able-bodied adults that do not have dependent children or,

quite frankly, parents that need care at home because those folks need to be dedicated to doing that. And these are able-bodied folks.

And so, we got a lot of work ahead of us actually. And I really appreciate the role that you all play primarily in the nutrition space. But quite frankly, those who participate in the programs where we also put an emphasis into the education component to helping people move out of those financially distressed circumstances to greater opportunity, which that is basically the only thing this country promises each and every one of us.

So, Mr. Chairman, thanks so much for this hearing and your leadership.

The CHAIRMAN. And thank you, Ranking Member, for your leadership as well. You are my partner on this Committee. You and I have worked together on many things, and I appreciate that, and certainly none greater than making sure that we feed the American people. That is the number one objective of our Agriculture Committee. And I appreciate our partnership.

And I just want to say again, and echo a few of the things that the Ranking Member mentioned as well; our first priority is what we have been in here talking about. But we are also faced with numerous challenges. And then, more than that, statistical evidence that Mr. Kyle Waide presented in terms of the 40 percent increase in terms of need. That is almost half of what we are doing. We have to increase. We have been hit with COVID-19. We have been hit with challenges all the way through.

Many of our veterans are going hungry, and that just breaks my heart for any of our American citizens going hungry. But Lord knows those that have put their lives on the line for us are reaching pinnacles of homelessness and food deserts. Sometimes the chill in this room, this gives me an aggravated cough, so I appreciate you all working with me on that during this session.

But I can't tell you how grateful we are. And you have reinforced—I think you have heard from the feedback from the Members of this Committee, both on the Republican side and on the Democratic side. This is one thing, one issue that has bipartisan support, feeding our nation.

And so, I mean that sincerely, Mr. Waide, we are going to get you and this nation that \$450 million that is needed in this farm bill. We are committed to doing that. And I think then that I feel confident that we have the collective power to get it done.

And all of the other recommendations that each of you have mentioned, we can get it done. All we have to do is work together in a bipartisan way. That is the way you get things done. In my whole career people say I have done great work, but I have done great bipartisan work. And we Democrats and Republicans are going to work together to make this the absolute best farm bill we have ever had. And we have had a bunch of, many of them, but we want to keep improving.

And so, I just want to thank you. And before I close out, I want to thank my wonderful staff. They have put together a wonderful hearing here. Would you mind giving my staff a good round of applause? These are the people that do the work. And so I thank you for that. And I believe I have to do a little homework here before I adjourn.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any question posed by a Member.

With that, this hearing of the Committee on Agriculture of the House of Representatives is adjourned.

[Whereupon, at 1:09 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. ALMA S. ADAMS, A REPRESENTATIVE IN CONGRESS FROM
NORTH CAROLINA

June 9, 2022

Hon. NANCY PELOSI,
Speaker of the House,
U.S. House of Representatives,
Washington, D.C.;

Hon. KEVIN MCCARTHY,
Minority Leader,
U.S. House of Representatives,
Washington, D.C.;

Hon. CHUCK SCHUMER,
Majority Leader,
United States Senate,
Washington, D.C.;

Hon. MITCH MCCONNELL,
Minority Leader,
United States Senate,
Washington, D.C.

Dear Speaker Pelosi, Minority Leader McCarthy, Majority Leader Schumer, Minority Leader McConnell,

We urge you to take steps now to prevent a “hunger cliff” that otherwise looms ahead when the Federal COVID–19 Public Health Emergency Declaration (PHE) expires.

Food insecurity in 2020 affected an estimated one in ten U.S. households overall. Food insecurity also had disparate impacts, with food insecurity affecting nearly one in eight Hispanic-headed households and more than one in five Black-headed households.¹ Recent supply chain issues, the Russian invasion of Ukraine, and other factors pushing food price rises are exacerbating the challenges many Americans have in affording an adequate diet.

Federal relief enacted at the outset of the pandemic has helped to mitigate the depth of hunger. Specifically, the Families First Coronavirus Response Act of 2020 authorized the issuance of SNAP Emergency Allotments (EAs) while Federal and state PHEs are in place. That Act also temporarily suspended time limits on SNAP eligibility for certain unemployed and underemployed workers and provided USDA with enhanced authority to allow changes to SNAP operations. The Consolidated Appropriations Act, 2021 increased SNAP access for college students during COVID–19.

In addition to positive impacts on the food budgets of millions of households and the streamlining of administrative operations, the temporary SNAP relief has had positive impacts on the economy. Each \$1 in SNAP benefits during a downturn generates between \$1.50 and \$1.80 in economic activity. That has benefited the entire food chain—from farmers, ranchers and food manufacturers, to truckers, grocers and store clerks.

Moreover, SNAP has had positive impacts on all communities, rural as well as urban. In 2020, SNAP reduced poverty in metro areas by 0.8 percent and in rural areas by nearly double that (1.4 percent).²

Once the HHS PHE sunsets, however, most of these SNAP relief measures also will end. Due to the end to EAs alone, most SNAP participants, on average, are expected to *lose \$82 per person a month* in SNAP benefits. The average SNAP benefit will fall to about a mere \$5.40 per person per day.

Action is needed to avert the looming “hunger cliff” and to strengthen SNAP permanently. First, Congress should both extend the authority for issuing SNAP EAs beyond the PHE to provide a more gradual path to regular benefits as well as instruct USDA to require states to notify and robustly screen all households for all allowable shelter, childcare, and medical expense deductions in order to ensure the correct amount of SNAP benefits.

Second, Congress should include in any upcoming legislation three key strengthen SNAP bills:

Closing the Meal Gap Act of 2021 (H.R. 4077/S. 2192) to address SNAP benefit adequacy and equity by: (1) substituting the Low Cost Food Plan for the Thrifty Food Plan as the market basket on which to calculate SNAP benefits; (2) increasing the \$20 minimum monthly benefit; (3) removing the cap on the shelter costs that households with children can take into account for SNAP; (4) streamlining the SNAP standard medical deduction for SNAP participants who are elderly or have a disability; and (5) providing equitable access to residents

¹ <https://www.ers.usda.gov/publications/pub-details/?pubid=102075>.

² <https://www.aei.org/wp-content/uploads/2022/03/SNAP-Supports-Rural-Families.pdf?x91208>.

of Puerto Rico, American Samoa, and the Commonwealth of the Northern Mariana Islands.


Two additional bills to improve equitable access to SNAP: one, ending a time limit on benefits for certain unemployed and underemployed adults (Improving Access to Nutrition Act of 2021 (H.R. 1753)); the other, eliminating long-standing rules that require many college students to work 20 hours a week for their food benefits, effectively undermining their educational success. (Enhance Access To SNAP Act of 2021 (H.R. 1919/S. 2515)).

Hungry people can't wait. Taking these actions now can help avert a severe "hunger cliff" and promote food security and economic equity during COVID-19 and beyond.


Sincerely,



Hon. JAMES P. MCGOVERN,
Member of Congress



Hon. ALMA S. ADAMS,
Member of Congress



Hon. BARBARA LEE,
Member of Congress



Hon. MELANIE A. STANSBURY,
Member of Congress



Hon. JIMMY PANETTA,
Member of Congress



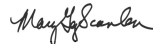
Hon. JANICE D. SCHAKOWSKY,
Member of Congress



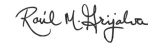
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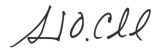
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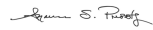
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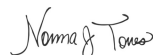
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Hon. NORMA J. TORRES,



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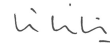
Member of Congress



Hon. ALAN S. LOWENTHAL,
Member of Congress



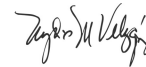
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SABLAN,
Member of Congress



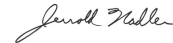
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Hon. NIKEMA WILLIAMS,
Member of Congress



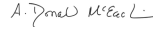
Hon. STACEY E. PLASKETT,
Member of Congress



Hon. JOHN GARAMENDI,
Member of Congress



Hon. KATIE PORTER,
Member of Congress



Hon. A. DONALD MCEACHIN,
Member of Congress



Hon. TROY A. CARTER,
Member of Congress

SUBMITTED LETTER BY HON. JIMMY PANETTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

February 28, 2022

Hon. TAMMY BALDWIN,
Chair,
Senate Appropriations Agriculture,
Rural Development, Food and Drug
Administration, and Related Agencies
Subcommittee,
Washington, D.C.;

Hon. JOHN HOEVEN
Ranking Minority Member,
Senate Appropriations Agriculture,
Rural Development, Food and Drug
Administration, and Related Agencies
Subcommittee,
Washington, D.C.;

Hon. SANFORD D. BISHOP, JR.,
Chair,
House Appropriations Agriculture, Rural
Development, Food and Drug Adminis-
tration, and Related Agencies Sub-
committee,
Washington, D.C.;

Hon. ANDY HARRIS
Ranking Minority Member,
House Appropriations Agriculture, Rural
Development, Food and Drug Adminis-
tration, and Related Agencies Sub-
committee,
Washington, D.C.

Dear Chairs Baldwin and Bishop and Ranking Members Hoeven and Harris:

We write to respectfully request that you include additional funding beyond what has already been provided in FY 2022 appropriations legislation for The Emergency Food Assistance Program (TEFAP) in omnibus spending legislation or any additional COVID relief supplemental spending legislation.

The charitable food system continues to experience an on-average 40 percent increase in demand for local emergency hunger relief, with over 60 million people turning to food banks in 2020.¹ This rise comes at a time when past emergency food support provided by Congress has ended. As we continue to observe a high demand for food assistance, food banks will need additional support to ensure they can meet the demand from community members, families, and children facing hunger.

United States Department of Agriculture (USDA) foods including TEFAP are the cornerstone of the food supply for our nation's food banks. According to Feeding America, USDA commodities provide approximately 39 percent of the food distributed by their network of 200 food banks and 60,000 local faith-based and charitable partner organizations. Last year, USDA foods provided 2.4 billion meals distributed to their network food banks. Many food banks could struggle to meet the demand for food assistance without the fresh fruits, vegetables, protein, and more provided through the program.

¹ *State-By-State Resource: The Coming Food Bank Crisis—Your Community May Face a Food Crisis in 2021—Feeding America Action* (<https://feedingamericaaction.org/resources/state-by-state-resource-the-coming-food-bank-crisis-your-community-may-face-a-food-crisis-in-2021/>).

Further, TEFAP is essential to rural communities. Rural communities make up 63 percent of all counties in the United States, but account for 87 percent of counties with the highest rates of food insecurity in the nation.² Last year, through USDA commodities, food banks distributed 1.2 billion pounds of food to rural America,³ with TEFAP providing nearly 40 percent of this assistance. For years, farmers, agriculture partners, and food banks have maintained a deep working relationship to provide U.S. grown commodities to families and children facing hunger.

We can help address the need for emergency food bank support by providing an additional \$900 million for food purchases through TEFAP. We ask that you include this additional critical funding to ensure food-insecure families can put food on the table.

Sincerely,



Hon. JIMMY PANETTA,
Member of Congress



Hon. SHONTEL M. BROWN,
Member of Congress



Hon. DON YOUNG,
Member of Congress



Hon. JAKE AUCHINCLOSS,
Member of Congress



Hon. DEBBIE DINGELL,
Member of Congress



Hon. GWEN MOORE,
Member of Congress



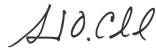
Hon. KIM SCHRIER,
Member of Congress



Hon. JAHANA HAYES,
Member of Congress



Hon. SUZANNE BONAMICI,
Member of Congress



Hon. SALUD O. CARBAJAL,
Member of Congress



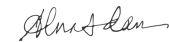
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Hon. ZOE LOFGREN,
Member of Congress



Hon. JIM COSTA,
Member of Congress



Hon. ALMA S. ADAMS,
Member of Congress



Hon. MIKE THOMPSON,
Member of Congress

²Rural Hunger Facts | Feeding America (<https://www.feedingamerica.org/hunger-in-america/rural-hunger-facts>).

³The Emergency Food Assistance Program is Rural America's Hunger Lifeline—Feeding America Action (<https://feedingamericaaction.org/tefaphelpsrruralhunger/>).



Hon. SHARICE DAVIDS,
Member of Congress



Hon. NIKEMA WILLIAMS,
Member of Congress



Hon. ADAM SMITH,
Member of Congress



Hon. JOHN GARAMENDI,
Member of Congress



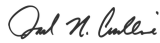
Hon. JULIA BROWNLEY,
Member of Congress



Hon. EARL BLUMENAUER,
Member of Congress



Hon. MARY GAY SCANLON,
Member of Congress



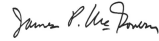
Hon. DAVID N. CICILLINE,
Member of Congress



Hon. EDDIE BERNICE JOHNSON,
Member of Congress



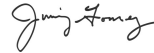
Hon. CONOR LAMB,
Member of Congress



Hon. JAMES P. MCGOVERN,
Member of Congress



Hon. LORI TRAHAN,
Member of Congress



Hon. JIMMY GOMEZ,
Member of Congress



Hon. DANIEL MEUSER,
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Hon. KAIALI'I KAHELE,
Member of Congress



Hon. ANN M. KUSTER,
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Hon. JASON CROW,
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Hon. ABIGAIL DAVIS SPANBERGER,
Member of Congress



Hon. ANGIE CRAIG,
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Hon. ERIC SWALWELL,
Member of Congress

James R. Langevin

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Member of Congress

James R. Langevin

Hon. PETER A. DEFAZIO,
Member of Congress

Peter Defazio

Hon. JUAN VARGAS,
Member of Congress

Juan Vargas

Hon. MARK DESAULNIER,
Member of Congress

Mark DeSaulnier

Hon. DWIGHT EVANS,
Member of Congress

Dwight Evans

Hon. DONALD NORCROSS,
Member of Congress

Donald Norcross

Hon. RO KHANNA,
Member of Congress

Ro Khanna

Hon. G. K. BUTTERFIELD,
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G. K. Butterfield

Hon. JOSH GOTTHEIMER,
Member of Congress

Josh Gottheimer

Hon. RICK LARSEN,
Member of Congress

Rick Larsen

Ted W. Lieu

Hon. TED LIEU,
Member of Congress

Ted Lieu

Hon. J. LUIS CORREA,
Member of Congress

J. Luis Correa

Hon. MADELEINE DEAN,
Member of Congress

Madeleine Dean

Hon. JOYCE BEATTY,
Member of Congress

Joyce Beatty

Hon. ANDY KIM,
Member of Congress

Andy Kim

Hon. PETER WELCH,
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Peter Welch

Hon. JERROLD NADLER,
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Jerrold Nadler

Hon. EMANUEL CLEAVER,
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Emanuel Cleaver

Hon. JERRY MCNERNEY,
Member of Congress

Jerry McNerney

Hon. ELEANOR HOLMES NORTON,
Member of Congress

Eleanor Holmes Norton



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Hon. MARC A. VEASEY,
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Hon. DEBORAH K. ROSS,
Member of Congress



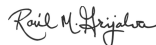
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Hon. LINDA T. SÁNCHEZ,
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Hon. MELANIE A. STANSBURY,
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Hon. RAÚL M. GRIJALVA,
Member of Congress

André Carson

Hon. ANDRÉ CARSON,
Member of Congress



Hon. STEVEN HORSFORD,
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Hon. CAROLYN B. MALONEY,
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Hon. STEPHEN F. LYNCH,
Member of Congress



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Hon. RITCHIE TORRES,
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Hon. DINA TITUS,
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Hon. VERONICA ESCOBAR,
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Hon. STACEY E. PLASKETT,
Member of Congress



Hon. ELAINE G. LURIA,
Member of Congress



Hon. TROY A. CARTER,
Member of Congress



Hon. JOE NEGUSE,
Member of Congress



Hon. THOMAS R. SUOZZI,
Member of Congress



Hon. HAKEEM S. JEFFRIES,
Member of Congress

SUPPLEMENTARY MATERIAL SUBMITTED BY KYLE WAIDE, PRESIDENT AND CHIEF
EXECUTIVE OFFICER, ATLANTA COMMUNITY FOOD BANK

Insert 1

Mr. COSTA. All right. You talk about waste in our food supply chain, and you noted \$2,100. How do we get at the waste that we need to cut at all ends of the food supply chain? My time is obviously almost over. But I would like you to submit that to the Committee for future reference.

Feeding America is the nation's largest food rescue organization and partners with food manufacturers, retailers, restaurants, and growers to recover surplus nutritious food and distribute it to people in need. An estimated 72 billion pounds of edible food goes to waste each year in the United States. Last year, the Feeding America food bank network and partners rescued 4.7 billion pounds of groceries to help provide additional food assistance to our neighbors facing hunger. In Georgia, we continue to work with agriculture partners to ensure agriculture products that would otherwise go to waste can be used to help Georgians facing hunger. However, Congress and the United States Department of Agriculture (USDA) can take additional actions to reduce food waste and increase food assistance. The Feeding America food bank network urges Congress and the USDA to consider the following policy suggestions:

- Increase technical support and education about the Bill Emerson Good Samaritan Food Donation Act, to reduce donor concern about potential liability.
- Increase storage and distribution funding for food rescue efforts. The 2018 Farm Bill funded food waste pilots that USDA has implemented to focus on composting at the municipal level; this should be expanded to include food rescue support by food banks and others.
- Standardize food donation guidelines to allow the donation of safe, nutritious food beyond the "sell-by" date. Currently, 20 states do not allow the donation of food if it is beyond a "sell-by" date, even when the food is known to be safe and nutritious.
- Simplify food labels by providing a uniform national standard to reduce confusion around what terms like "sell-by," "best-by," "use-by," and "best before" dates mean.
- Provide resources to innovative food rescue programs, including offsetting the cost to harvest, pack, and transport donated food.
- Increase tax incentives for food donation and provide tax incentives for donations of transportation to 501(c)(3) nonprofit organizations or grant dollars to support transportation and distribution of recovered food.
- Increase access to donated foods for Native American communities by allowing Tribal organizations to receive donated food, along with 501(c)(3) organizations, under Internal Revenue Code Section 170(e)(3).

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Mr. AUSTIN SCOTT of Georgia. . . .

We have moved now to the TEFAP program since Farmers to Families was canceled. And just I understand that your food bank, that you have received some of these boxes already, is that correct?

Mr. WAIDE. Yes, we received boxes through both programs. The Farmers to Families Food Box Program provided a lot of support for our community, helped

us meet the need in our community. And in the new program, we have benefited from that as well.

Mr. AUSTIN SCOTT of Georgia. And how many commodities are available through that program?

Mr. WAIDE. I don't know the specific number of commodities. We can follow up with that specific answer.

According to the United States Department of Agriculture (USDA), from May to December 2020, the Farmers to Families Food Box Program provided 132 million food boxes nationwide to people in need of food assistance. The Feeding America food bank network distributed 20–29% of the food throughout this timeframe. While the program provided critical additional food assistance during an unprecedented time, the Administration and Congress should consider a few recommendations before potentially implementing similar programs. These recommendations include:

- Provide increased accountability for the Farmers to Families Food Box Program by requiring distributors to distribute the food in an equitable manner nationwide through USDA Food Distributions Programs like The Emergency Food Assistance Program (TEFAP) to emergency hunger relief organizations.
- Provide support for emergency hunger relief organizations for distribution costs by providing storage and distribution grants directly to the organizations per truckload of food received.
- Provide a steady supply of ready-to-load commodities to food banks to help meet demand. Both growers and food banks would benefit from knowing how long additional food purchase support from USDA could last so that they can plan accordingly and understand the impact of the program. This would allow food banks to plan with other partners to source additional food as needed. The Farmers to Families Food Box Program provided food quickly but was not as efficient or effective as it could be in distributing food to people in need. We recommend a program that provides food quickly during this crisis, but that operates through existing distribution channels to ensure equitable distribution across the country, predictable deliveries, and safe food handling.

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Mr. ALLEN. . . .

. . . And for our witnesses today, seeing Title IV alone will cost taxpayers more than \$1.1 trillion over the next 10 years, how do you reconcile that with your programmatic recommendations? And we will start off with you, Mr. Smittcamp, I believe, if I am reading that correct.

* * * * *

Mr. ALLEN. Sorry, I am out of time. And, Mr. Waide, if you will provide us something to that question to us in writing, I would appreciate it. Mr. Chairman, I yield back. Thank you.

Currently, 38 million people, including 12 million children, continue to face hunger in the United States, which is still higher than pre-pandemic levels. Last year, one in six people in the United States—53 million people—sought help from the charitable food sector. In Georgia, the food insecurity rate within the Atlanta Community Food Bank's 29 county service area is currently 12%. In addition, hunger continues to disproportionately impact communities of color and rural communities, which often have higher rates of food insecurity. While food banks have worked tirelessly to ensure our neighbors in need have access to emergency food assistance, we know hunger cannot be solved without continued strong partnerships between the private- and public-sectors. For example, United States Department of Agriculture (USDA) commodities like The Emergency Food Assistance Program (TEFAP) provide 39% of all the food distributed through the Feeding America food bank network. This critical program would not exist without the strong partnerships between our nation's farmers, food banks, and the USDA. Federal nutrition programs have been proven to help reduce hunger across the United States, and Congress should continue to invest in these programs. In the 2023 Farm Bill, the Feeding America food bank network is urging Congress for a modest increase in increase TEFAP baseline funding by \$250 million a year, providing \$500 million total for TEFAP food purchases before adjusting for inflation. TEFAP is currently funded at \$250 million per year, adjusted annually by the Thrifty Food Plan, with an additional \$35 million per year added by the 2018 Farm Bill. Increased funding for TEFAP will help ensure food banks can continue to meet the demand for food assistance from neighbors in need. In addition, Feeding America is planning for a nearly 40% decrease in Federal commodity food pounds in FY2023. Food banks will not be able

to make up for the decrease in food without additional increases in TEFAP and other USDA commodity programs.

SUPPLEMENTARY MATERIAL SUBMITTED BY JESSIE G. GRUNER, PH.D., RDN,
DIRECTOR OF COMMUNITY INNOVATIONS, PINNACLE PREVENTION

Insert 1

Ms. KAPTUR. . . .

* * * * *

Dr. Gruner, I would like to ask you, in terms of the Senior Farmers' Market Nutrition Program, the coupon program, it is so popular. Why does it only function in maybe one Congressional district per state in this country?

And number three, how do we encourage local schools to get food from local farmers? How do we move into those school nutrition contracts? What can we do in the farm bill in that regard? So, anybody that wants to address any one of those three, I am really interested in your answers. Thank you.

* * * * *

The CHAIRMAN. If you don't mind, your time has expired. But that was a very important question, and we would appreciate it if each of you could respond to Ms. Kaptur in writing.

Thank you for your questions, Representative Kaptur. We typically see the greatest utilization of the Senior Farmers' Market Nutrition Program (SFMNP) in places and regions where seniors have greater access to farmers' markets and limited transportation barriers. Due to the limited funding of the program, we believe that some states are strategic in channeling their funding to areas where they will have the highest utilization of the program with the lowest human capacity for implementation. Ultimately this results in the program operating only in one or two Congressional districts per state. Our experience with the SFMNP has led us to recognize that innovative transportation solutions and additional technical assistance are needed to increase access to the program, especially in geographically hard-to-reach communities, including rural and Tribal areas. Additional resources to meet the needs of these communities in the form of administrative funds would help to ensure that more seniors and growers can participate in this program and further shore up our regional food system. Even a small amount of increased investment can greatly increase reach, program utilization, and ultimately consumption of nutritionally-dense food among our senior population. For example, in Colorado, the addition of a nominal \$5 per share empowered a CSA program to deliver weekly produce directly to isolated households. Increasing the administrative cost cap from 10% to 15% would allow states more flexibility and innovation to reach underserved communities and further advance equity in the program.

In terms of encouraging schools to get food from local farmers, there are a couple of pieces of legislation that will help to move more local food into our school system that will hopefully be adopted through Child Nutrition Reauthorization (CNR). This includes:

- The Kids Eat Local Act (H.R. 3220, S. 1817), which will bring more local food into school meal and child nutrition programs by making it easier for schools to source local food through procurement processes, providing more market opportunities for farmers, ranchers and fishermen.
- the Farm to School Act (H.R. 1768, S. 1328), which will increase annual funding for the highly demanded Farm to School Program from \$5 million to \$15 million and increase the grant award maximum to \$250,000, which will help support more grantees and grantees from large school districts and state agencies in launching and establishing long-term, sustainable programs.
- The Scratch Cooked Meals for Students Act (H.R. 6608), which will provide funding for culinary training, kitchen equipment, infrastructure, and technical assistance for schools and districts. Greater access to equipment and training will ultimately help to expand the types of products schools are able to procure and cook for students, including more whole and minimally processed products.
- The School Food Modernization Act (H.R. 4379 and S. 876), which will help provide grant assistance and seed funding for schools to upgrade kitchen infrastructure and high-quality equipment, which will expand the type of foods that schools are able to source and menu.

These policy efforts through CNR will help to build the capacity of schools to procure more local food. We also recognize a need to build the capacity of local farmers, ranchers, and fishermen to help navigate the unique school marketplace. Building off of experiences and lessons learned from USDA's recently launched Local Foods for Schools (LFS) Cooperative Agreement Program, we have identified a need to help farmers build capacity to navigate school procurement systems and a need to improve access to equipment and technology to help producers source product to their local school districts. This could include increased and improved accessibility of funds farmers, ranchers, and fishermen could specifically apply for to:

- increase food safety training and certification, such as the Food Safety Certification for Specialty Crop Program;
- improve on-farm cold food storage and transportation, including Coolbots and refrigerated trucks and vans; and
- gain greater access to packing and processing equipment, and third-party processors to better meet the unique serving size and product needs of schools.

Continued investment in equipment, infrastructure and technical support will help increase the capacity of local farmers which will ultimately make it easier for schools to source food from local producers. Improving access and creating low-burden application processes of existing funding will help to ensure a greater number of producers have access to programs, especially historically underserved producers. In summary, to evade duplication of efforts, we recommend that farm bill efforts emphasize building farmer capacity and CNR efforts continue to support building the capacity of schools.

Insert 2

Ms. KUSTER. . . .

Dr. Gruner, we have heard the program is drastically oversubscribed nationally. Can you tell us roughly how many more seniors you could be serving with more funding in the program?

Dr. GRUNER. Representative, I realize your time has expired. I am happy to follow up in written comments if that would be helpful.

Thank you for your question, Representative Kuster. It is not our experience that the Senior Farmers' Market Nutrition Program is oversubscribed. For context, in Arizona, we have nearly 250,000 seniors who are eligible for the SFMNP and our current funding allocation can serve roughly 2,600 individuals, meaning we only have enough funding to meet about 1% of the need.

We recognize that there could be improvements made to the funding allocation to ensure that there is an equitable distribution of funds based on current poverty rates across states. For example, in FY 2021, Texas received less than 0.50% of the current SFMNP allocation despite being home to 10% of the nation's adults over the age of 65 living in poverty. In June of this year, the USDA released a framework for shoring up the food supply chain and transforming the food system to be more fair, competitive, and resilient. This included an additional \$50 million allocated for the SFMNP. We have submitted a letter to Undersecretary Vilsack advocating that this funding be used to help resolve the significant inequity in the current allocation of funds to be more in line with state poverty rates. We suggest that in order to have a distribution of funds that more accurately reflects need, the additional \$50 million be used to ensure that all states receive an allocation that (at a minimum) reflects a standard equation based on poverty rates, without penalizing states that are meeting and exceeding their current caseloads. While this one-time funding is a welcomed investment that will ultimately help to serve more seniors and improve equity in the program, what is ultimately needed long-term is an increase in the base funding for the program through farm bill to create a more sustainable solution. Reexamining the current appropriation of funds in the absence of increased base funding will continue to perpetuate the disparities in the funding allocation and would fail to address the true need of serving more seniors and optimize the full capacity and potential for this program.

In terms of how many more seniors we could we could serve in Arizona, approximately 23,000 seniors participate in the Commodity Supplemental Food Program (CSFP), making them eligible for the SFMNP (in Arizona, our SFMNP is tied to CSFP participation). We are currently serving 2,600 seniors and with additional funding we would have the capacity to serve all seniors participating in CSFP.

SUBMITTED QUESTIONS

Response from Kyle Waide, President and Chief Executive Officer, Atlanta Community Food Bank

Question Submitted by Hon. Salud O. Carbajal, a Representative in Congress from California

Question. As a supporter of additional funding for TEFAP, I know how vital the program continues to be to ensure food banks can continue to meet the increased demand for food. During the pandemic, I heard from food banks in my district about the flexibilities that allowed them to improve program operations. Allowing things as simple as a streamlined signature process was critical as food banks had to shift to scale up and quickly modify their programs. I'm also glad to see California raise the income threshold so that families facing higher costs of living can access the program.

Mr. Waide, can you describe ideas to strengthen TEFAP in the 2023 Farm Bill by building on program improvements while maintaining the critical civil rights protections in Federal nutrition programs?

Answer. The Emergency Food Assistance Program (TEFAP) and United States Department of Agriculture (USDA) foods are the backbones of the Feeding America food bank food supply, providing 39 percent of the food we distribute to people in need of emergency food assistance. The Atlanta Community Food Bank distributed approximately 40 million pounds of food commodities provided through TEFAP and other special USDA programs in our FY 2021. In addition, TEFAP and USDA foods continue to be a critical source of nutrition for unserved and rural communities. Last year, Feeding America distributed 1.2 billion pounds of food in rural communities, and 465 million pounds distributed in rural counties were through USDA commodities like TEFAP. As our nation's food banks continue to experience an increase in demand for food assistance and a decline in retail donations, food banks will need additional support to help meet the demand. Unfortunately, Feeding America is planning for a nearly 40% decrease in Federal commodity food pounds in FY 2023, which cannot be made up without additional investments in TEFAP. In the 2023 Farm Bill, Congress should increase TEFAP baseline funding by \$250 million a year, providing \$500 million total for TEFAP food purchases before adjusting for inflation. TEFAP is currently funded at \$250 million per year, adjusted annually by the Thrifty Food Plan, with an additional \$35 million per year added by the 2018 Farm Bill. Congress must also authorize \$200 million per year for TEFAP Storage and Distribution funds and \$15 million per year for TEFAP Infrastructure Grants. This funding will help ensure that TEFAP food levels remain steady throughout the food assistance network, continue to help households facing hunger, and support the U.S. agricultural economy. In addition, programmatic improvements can be made to increase access to the program. TEFAP state agencies should work with distributors of TEFAP foods, like food banks, to use policy options that optimize distribution. The USDA should strongly encourage states to reduce program administrative barriers and reduce barriers to eligibility. Federal law specifies four key requirements for TEFAP eligibility: Local organizations must collect an individual's name, income eligibility, address, and the number of people in their household. However, numerous states require additional paperwork that reduces individual dignity and creates burdensome processes for food banks and state agencies.

Response from Gary J. Besaw, Director, Menominee Tribal Department of Agriculture and Menominee Tribal Food Systems and Food Distribution Program

Questions Submitted by Hon. Tom O'Halleran, a Representative in Congress from Arizona

Question 1. Mr. Besaw, how do you expect the 638 Self-Determination Demonstration Project for FDPPIR—or the 638 contracts—to impact local farmers and ranchers and the broader food systems in and around participating Tribes?

Answer. This is a new market opportunity for local farmers and ranchers that can increase farm income and open doors to other institutional markets for our producers. That helps producers grow their businesses and scale up, which in turn creates new job opportunities. Those new jobs are not only on farm, but also in the surrounding food system: when producers scale up and add value-added opportunities to their operations, this creates a need for processing facilities, packing, transportation and shipping for those value-added products. This also keeps food dollars circulating within our communities, stabilizing economies. That doesn't just benefit Tribal citizens, but everyone in and around the Tribe.

Importantly—this is also a market opportunity that continues even during emergencies. When the coronavirus pandemic started in spring 2020, almost overnight local farmers and ranchers across the country lost market access as restaurants, schools, and even farmers['] markets closed. But our food assistance programs like FDPIR continued because they had to provide food during that crisis.

Question 2. Mr. Besaw, of the eight Tribes participating in the Self-Determination Demonstration Projects, Menominee is unique in that it has joined together with Oneida Nation to establish a joint 638 Demonstration Project. Can you elaborate on why it was important to Menominee collaborate on this project?

Answer. There were several reasons. Some of the bigger goals of the joint 638 Demonstration Project collaboration were to (1). Model a cooperative agreement process between two Tribal sovereigns in order to demonstrate and educate the USDA/FNS on our unique needs and joint processes, (2). Model to other regional Tribal sovereigns that Tribal sovereigns can create culturally and legally informed agreements and set the stage for future agriculturally related agreements, (3). By joining together, we could increase the volume of produce and proteins needed to order from each vendor, thus increasing the positive impact to indigenous producers and economically justifying their respective involvement as suppliers. (4). Since our reservations are approximately 40 miles apart, by shortening the delivery radius and coordinating deliveries, we could decrease the transportation and storage needs, thus reducing the carbon footprint, a goal of the USDA as well.

Question 3. Mr. Besaw, I understand the Self-Determination Projects currently last up to 3 years. Does the time-limited nature of the Self-Determination Projects impact your ability to secure contracts with more Native farmers?

Answer. Yes, absolutely. Timing has certainly been an issue. Farmers and ranchers are excited about working with us but they need to know about contract availability much earlier in the year to be able to plan and commit to that. Also, many of the producers we are working with are small- or midsize farmers and ranchers who may be able to scale up their operations because of the market opportunity they have with these contracts, but that requires additional capital investment, which is challenging for them to receive without a guarantee of stable contracts. We can provide that stability for our farmers and ranchers when we can offer a longer termed, more permanent contract for producers to plan out and finance infrastructure improvements needed. The longer termed contracts can also serve to provide the justification for start-up farmers and producers to develop feasibility models and more realistic business plans needed to obtain financing for infrastructure and capital needed to get started in the Tribal agricultural economy.

As long as this is a limited pilot project that relies on discretionary appropriations, USDA will be unable to extend the kind of long-term contracts we need to see the most benefit to our producers, people, and food systems from this authority. The next farm bill offers an opportunity for Congress to make this authority permanent, which would remove that time-limited barrier. That type of change would benefit Tribal and non-Tribal producers and ranchers across untold communities by creating regional food systems, while also reducing carbon emissions by reducing travel and storage needs.

Question 4. Mr. Besaw, in your testimony, you mention the administrative hurdles you ran into last year when Wisconsin suffered unusual weather and experienced three hard frosts, damaging many of the apples in your region. How would self-governance authority help you handle unforeseen issues like this?

Answer. Expanded self-governance authority for this program would help us be as flexible as possible in sourcing food for our people and supporting our producers. When those kinds of weather events happen and we have limited apples to source, we would have the immediate ability to shift and purchase different products for the program, or immediately pivot to other available orchards or fruit providers.

Broader self-governance authority for all USDA programs would be even more helpful in situations like this, because Tribes would have the ability to offer more immediate disaster relief to our producers.

The current demonstration project is limited in scope and only allows Tribes or Tribal organizations to enter into short-term contracts to replace USDA food with locally grown, traditional foods. By expanding into self-governance, Tribes would have greater authority and flexibility to revise what foods are being provided in the program and adapt to the unpredictability of food production. If we had Self-Governance authority, we would be able to handle unforeseen issues like this without having to obtain Federal approval and all the administrative work that goes along with it.

**A 2022 REVIEW OF THE FARM BILL
(DAIRY PROVISIONS)**

WEDNESDAY, JUNE 22, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, Costa, McGovern, Adams, Brown, Kuster, O'Halleran, Carbajal, Khanna, Craig, Harder, Axne, Schrier, Bishop, Davids, Thompson, LaMalfa, Allen, Johnson, Baird, Balderson, Cloud, Mann, Feenstra, Moore, Cammack, and Fischbach.

Staff present: Lyron Blum-Evitts, Daniel Feingold, Emily Pliscott, Kelcy Schaunaman, Ashley Smith, Patricia Straughn, Trevor White, Erin Wilson, John Konya, and Dana Sandman.

**STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF GEORGIA**

The CHAIRMAN. The hearing will now come to order, and I would like to welcome everyone, and thank you each for joining us today. Today's hearing is entitled, *A 2022 Review of the Farm Bill: Dairy Provisions*. After brief opening remarks, Members will receive testimony from our witnesses, and then the hearing will be open for questions. And let me begin with my statement first.

Good morning again, and I appreciate our wonderful witnesses for joining us today. Before we discuss the topics of today's hearing, I certainly want to welcome Congresswoman Sharice Davids to our House Committee on Agriculture. Ms. Davids represents the Third District in Kansas and joins Mr. Mann as our second Member from the great State of Kansas. So we want to extend a welcome to Ms. Davids, and I understand she will be joining us in person very soon.

Today's hearing continues our review of the 2018 Farm Bill as we analyze the dairy provisions, and the impact that they have had on dairy farmers, and how appropriate it is that we hold this hearing in the month of June, as we celebrate Dairy Month. I am very pleased to welcome two panels today, a panel first of USDA witnesses, and an industry panel. These two panels provide us with a depth of expertise to evaluate the dairy provisions of the farm bill. A significant portion of today's hearing will cover the dairy

safety net for family farmers, which is an integral part of ensuring the consistent production and availability of dairy products.

And, contained within that safety net, is Dairy Margin Coverage. Very, very important, DMC. This program provides more comprehensive coverage to small- and medium-sized farms than any other program before it. The Dairy Margin Coverage is extraordinarily important to our dairy farmers. The creation of DMC was an important part of the 2018 Farm Bill, and it is vital that we understand if there are ways to further improve this valuable tool so that it is working for our farmers and the American people. That is our chore today. And I look forward to a productive conversation about programs, such as DMC, designed to give our farmers a safety net that works.

And nothing made the importance of this safety net more apparent than the COVID-19 pandemic that we saw, and we saw during the early stages of the pandemic how shocks to labor, and our supply chain—some of which still persist today—how they impacted the ability of farmers to get their products to market. However, as market balances were disrupted, we were able to provide Pandemic Market Volatility Assistance Program funds through USDA to help our dairy farmers. However, COVID also raised a question of whether the Federal Milk Marketing Order system, which governs the pricing of milk, is the best fit for today's world. And we must listen to our farmers, and we must continue a dialogue with industry and USDA, as we navigate that issue to identify the best approach to any changes as we move forward.

And even as we have seen dairy prices rebound in 2022, there are several trends that are extremely troubling to me, and to our Committee. The number of licensed U.S. dairy herds fell by more than half between 2002 and 2019, and with an accelerating rate of decline in 2018 and 2019, even as milk production continued to grow, and we are losing dairy farms every single day. And this is something that is pressing on my heart, and the heart of this Committee. Folks, we are losing at a record pace our small farmers in many areas of our agriculture industry, and this is why I am writing a bill, and some legislation, with our Committee to see if we can help to stem this loss. This loss is devastating. Many of these smaller farmers—and while we have room for all sizes in the dairy industry, the loss of the smaller farms is having an impact across our rural communities. Human loss, as well as drastic economic loss. And in that same vein, we must also pay attention to the needs of small farmers around the country.

We were intentional in selecting our witnesses for our stakeholder panel today from multiple regions across the country, because this will provide us with the diversity of views, and can provide insight into recent developments, such as in the Northeast, where organic farmers have struggled to identify alternative markets after a major plant closed, and faced debilitating transportation issues in trying to find new markets for their milk. And as I have said many times, I have tremendous admiration for our farmers, and dairy faces a unique set of challenges, which is why the farm bill dairy provisions are so vitally important to each and every one of the Members on this Committee. And I look forward to hearing from our distinguished panels today about these pro-

grams, as well as opportunities where this Committee can move to improve them.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning, and thank you to our Committee Members and witnesses for joining us today. Before we discuss the topic of today's hearing, I would like to welcome Congresswoman Sharice Davids to the House Committee on Agriculture. Ms. Davids represents the Third District in Kansas and joins Mr. Mann as our second Member from the great State of Kansas. Welcome Ms. Davids.

Today's hearing continues our review of the 2018 Farm Bill, as we analyze the dairy provisions and the impact they have had on dairy farmers. How appropriate it is that we hold this hearing in June, as we celebrate Dairy Month. I am pleased to welcome two panels today, a panel of USDA witnesses, and an industry panel. These two panels provide us with a depth of expertise to evaluate the dairy provisions of the farm bill.

A significant portion of today's hearing will cover the dairy safety net for family farmers, which is an integral part of ensuring the consistent production and availability of dairy products. Contained within that safety net is Dairy Margin Coverage (DMC), a program that provides more comprehensive coverage to small- and medium-sized farms than any program before it.

The creation of DMC was an important part of the 2018 Farm Bill, and it is vital that we understand if there are ways to further improve this tool so that it is working for farmers and the American people. I look forward to a productive conversation about programs, such as DMC, designed to give these farmers a safety net that works.

Nothing made the importance of this safety net more apparent than the COVID-19 pandemic. We saw during the early stages of the pandemic how shocks to labor and the supply chain—some of which persist today—impacted the ability of farmers to get their products to market. As market balances were disrupted, we were able to provide Pandemic Market Volatility Assistance Program funds through USDA to our farmers.

However, COVID also raised the question of whether the Federal Milk Marketing Order System, which governs the pricing of milk, is the best fit for today's world. We must listen to farmers and continue a dialogue with industry and USDA as we navigate that issue to identify the best approach to any changes moving forward.

Even as we've seen dairy prices rebound in 2022, there are several trends that are extremely troubling. The number of licensed U.S. dairy herds fell by more than half between 2002 and 2019, with an accelerating rate of decline in 2018 and 2019, even as milk production continued to grow. We are losing dairy farms every single day. Many of these are smaller farms, and while we have room for all sizes in the dairy industry, the loss of these smaller farms is having impacts across rural communities.

In that same vein, we must also pay attention to the needs of small farmers around the country. We were intentional in selecting witnesses for our stakeholder panel from multiple regions across the country. This will provide us with a diversity of views and can provide insight into recent developments, such as in the Northeast, where organic farmers have struggled to identify alternative markets after a major plant closed and faced debilitating transportation issues in trying to find new markets for their milk.

As I have said many times, I have a tremendous admiration for our farmers. And dairy faces a unique set of challenges, which is why the farm bill dairy provisions are so important. I look forward to hearing from our distinguished panels today about these programs, as well as opportunities to improve them.

With that, I'd now like to welcome the distinguished Ranking Member, the gentleman from Pennsylvania, Mr. Thompson, for any opening remarks he would like to give.

The CHAIRMAN. And with that, I would like to turn it over to my good friend, the Ranking Member from Pennsylvania, Ranking Member Thompson.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Chairman Scott, thank you so much for convening this important hearing to discuss farm bill dairy provisions. Agriculture is the number one industry in Pennsylvania, and dairy is our most valuable commodity. Our dairy producers have a huge impact on the economy in our Commonwealth, especially in the rural communities and townships that I am honored to represent. I am a descendant of many generations of dairymen and -women who produced the milk, processed the milk, and actually delivered the milk. Unfortunately, our family farm sits at the bottom of a lake today, thanks to eminent domain.

But dairy will always remain a key interest of mine—I am proud to say I have milk flowing through my veins. I am concerned with the number of farms that we have lost in my state, and—dairy farms that we have lost, and those across the country as well. From 2020 to 2021, Pennsylvania lost more than 200 dairy farms, and nearly 1,800 nationwide in that same period. In order to stem this decline, we must have strong dairy policies in place that provides a safety net to help farmers withstand the tough years, and programs that help facilitate the movement of milk from the herd to the household.

Now, I am glad that we have witnesses from the Department of Agriculture to update us on current policy and program implementation, as well as from our dairy stakeholder community to give their perspective on what is, and, quite frankly, what isn't working well. With the trends that we have seen year in, year out, in terms of number of cows, number of dairy farms, we can't keep doing what we have been doing and expect different results. The dairy policy we have in place now is the result of an alliterative process. To be frank, Congress missed the mark in the 2014 Farm Bill with regards to the dairy safety net. I will say our Committee didn't miss the mark. Unfortunately, once the dairy coverage in 2014 Farm Bill went to the larger body changes were made that did not work well, make it affordable, nor make it useful for our dairy farmers. Since then, via the omnibus spending bills, and the 2018 Farm Bill, we have made key improvements, and now our producers have access to the Dairy Margin Coverage Program, as you have made reference to, Mr. Chairman, which is proven to be an effective risk management tool for dairies.

In terms of the agriculture industry, I would argue no sector was as acutely affected by the COVID-19 pandemic as dairy producers and processors. Unlike many other commodities, that can be stored or easily re-routed from food service to retail shelves, dairy doesn't have that luxury. Unfortunately, in the early days of the pandemic, there were some tragic examples of farmers being forced to dump milk, but I credit the resiliency of the industry in limiting those occurrences. Everyone, from the producer to the processor, stepped up, and they worked overtime to find new markets or retool their production lines to keep up with the rapidly changing demands of the shuttered economy.

Now, I am proud of our dairy industry for rising to the unprecedented challenges, and continuing to provide households here at home and abroad with safe, abundant, and affordable supplies of

nutritious milk and dairy products. Unfortunately, these market disruptions had a negative impact on producers' income due to the changes made in the 2018 Farm Bill to the Class I Mover. While USDA has provided some assistance to compensate producers for those losses, the 5 million pound limitation on assistance under the Pandemic Market Volatility Assistance Program left large operations with significant uncovered losses. In the past, dairy policy was regularly one of the most contentious debates during farm bill reauthorizations. However, in the 2018 Farm Bill, the dairy industry worked together to achieve consensus, rather than having Congress fight its battles for them. Now, I want to commend the National Milk Producers Federation and the International Dairy Foods Association for their work to foster those conversations, and present a united front on critical policy debates, particularly as it relates to further modifications to the Class I Mover.

Before I close, I would be remiss if I didn't point out that dairy not only needs producers and manufacturers, it needs consumers. Dairy is a nutrition powerhouse, but we lost a generation of milk drinkers when the milk fat was taken out of our schools in 2010, not by this Committee, but by the Education and Labor Committee, and we badly need to turn that around, and make sure that our kids have access to the nutrition that they need, and milk fat, we know, is where that nutrition is centered. I will continue to push for my bipartisan Whole Milk For Healthy Kids Act of 2021 (H.R. 1861). Many Members of this Committee are cosponsors of that bill, which has strong support across the Committee, and Congress, and hope that we can make some progress there.

Thank you, Mr. Chairman, for working with me on this hearing, and I look forward to hearing from the witnesses on both panels, and I yield back.

The CHAIRMAN. And thank you, Ranking Member, for your opening statement. The chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony to ensure that there is ample time for questions. And now let me introduce our distinguished panel. And, again, as I mentioned earlier, we are going to have two panels today.

On our first panel, we have our first witness for our first panel, is Mr. Scott Marlow. Mr. Marlow is the distinguished Deputy Administrator for Farm Programs at the Farm Service Agency at the United States Department of Agriculture. Welcome, Mr. Marlow. Good to have you. And now our second witness today is Ms. Dana Coale, the Deputy Administrator for the Agricultural Marketing Service Dairy Program at the Department of Agriculture. Good to have you too.

And—so now we are going to start, and, again, I want everyone to please keep your microphones muted until you are ready to speak. And, Mr. Marlow, please begin when you are ready.

**STATEMENT OF SCOTT MARLOW, DEPUTY ADMINISTRATOR
FOR FARM PROGRAMS, FARM SERVICE AGENCY, U.S.
DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.**

Mr. MARLOW. Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee, for this opportunity to appear before you and discuss the Farm Service Agency's efforts to

support the American dairy sector. My name is Scott Marlow, and since January of this year I have had the honor of serving as the Deputy Administrator for Farm Programs at the USDA's Farm Service Agency. In this capacity, I oversee the management of FSA's disaster assistance, conservation, safety net, and price support programs, including the focus of today's hearing, our dairy programs. I come to this job after decades of work supporting farmers and ranchers as they navigate the impacts of financial crises and disasters, and work to rebuild. I have seen firsthand the importance of timely, targeted, and accessible assistance from USDA, and I am humbled to now have the opportunity to help shape and improve the very programs I have helped producers access. Since the start of the Biden-Harris Administration, USDA has been focused on helping all producers recover from the continued impacts of the bruising COVID-19 pandemic, and in particular this Administration has been dedicated to filling gaps in previous pandemic programs and keeping farmers and ranchers in business.

At FSA our staff have worked tirelessly to find flexibilities in our existing dairy programs to be more responsive to the realities of dairy farming today, and we have made key improvements to both our Dairy Margin Coverage Program and our Dairy Indemnity Payment Program to meet the needs of our producers. I will let Deputy Administrator Coale delve into the details of the AMS Pandemic Market Volatility Assistance Program, the Dairy Donation Program, the Dairy Business Innovation Initiatives, but I will reference those programs as additional clear examples of this Administration's commitment to filling gaps and helping the dairy industry recover and rebuild with resilience.

As we look ahead to the upcoming farm bill process, and opportunities to update and improve our programs, I look forward to providing technical assistance and working together to continue finding the best path forward to support American dairy producers. In the remainder of my testimony, I will provide additional details on FSA's key dairy programs, and improvements that we have made.

The Dairy Margin Coverage Program is a voluntary risk management program established in the 2018 Farm Bill that offers reasonably priced risk protection to dairy producers when the difference between the all-milk price and the average cost of feed falls below a certain level selected by the producer. In 2021 DMC payments triggered for 11 months, for a total of \$1.2 billion paid to producers who enrolled in DMC for the 2021 program year. Ahead of the 2022 DMC signup, FSA made key improvements to DMC. Specifically, FSA rolled out Supplemental DMC, allowing dairy producers to better protect their operations by enrolling supplemental production, and providing an additional \$450 million in benefits. FSA also updated the DMC and Supplemental DMC formula to better reflect the actual cost dairy farmers pay for high quality alfalfa hay. We are now calculating those payments using 100 percent premium alfalfa hay, rather than 50 percent. This change is retroactive to January 2020 and provided additional payments of \$42.8 million for 2020 and 2021.

In addition to DMC, FSA administers the Dairy Indemnity Payment Program, which has historically provided indemnities to dairy producers for contaminated milk and milk products, and in Decem-

ber of 2021, FSA updated its DIPP regulations to better address the tragic crisis of PFAS contamination. Specifically, dairy producers are now eligible to receive payments for the loss of contaminated dairy cows. While I know that our updates to DIPP will provide critical assistance to impacted dairy operations, I also want to take a moment to recognize the reality that DIPP does not capture the scope of the problem when it comes to PFAS contamination on agricultural lands.

Moreover, while New Mexico and Maine have been at the forefront of this crisis, PFAS contamination extends far beyond these states. Unfortunately, the resources FSA has at the ready are not designed to comprehensively respond to these concerns, and as we look ahead to the upcoming farm bill, USDA will continue to provide technical assistance in response to any requests from Congress, and we are eager to engage on questions that will help USDA better support the range of agricultural producers grappling with chemical contaminants, including PFAS.

I also want to highlight forthcoming disaster assistance for dairy producers. On September 30, 2021, President Biden signed into law the Extending Government Funding and Delivering Emergency Assistance Act (Pub. L. 117-43), which includes \$10 billion in assistance to agricultural producers impacted by natural disasters in 2020 and 2021. FSA has implemented the first phase of assistance for livestock and crop producers, and, thus far, using a streamlined application process, has provided \$590 million through the Emergency Livestock Relief Program, and \$3 billion through the Emergency Relief Program. My team and I are actively working on designing phase two of both programs and will also be implementing assistance to specifically address milk loss, and I look forward to sharing additional details later this summer.

As I close my testimony, I also want to take the opportunity to express my gratitude and admiration for the entire FSA workforce, who are committed to keeping our nation's dairy producers, and all farmers and ranchers, in business for generations to come. Since my first day on the job, I have seen our staff work hard to develop and implement many new pandemic relief and disaster programs authorized by Congress, while administering our conventional farm programs, and I am grateful for the opportunity to work with them. I look forward to answering your questions and working with each of you.

[The prepared statement of Mr. Marlow follows:]

PREPARED STATEMENT OF SCOTT MARLOW, DEPUTY ADMINISTRATOR FOR FARM PROGRAMS, FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Thank you, Chairman Scott, Ranking Member Thompson, and Members of the Committee, for the opportunity to appear before you and discuss the Farm Service Agency's (FSA's) administration of programs that benefit our nation's dairy farmers.

My name is Scott Marlow, and since January of this year, I have had the honor of serving as the FSA Deputy Administrator for Farm Programs at the U.S. Department of Agriculture (USDA). In this capacity, I oversee the management of FSA's disaster assistance, conservation, safety net, and price support programs, which play a critical role in our farm and ranch economy. I am grateful for the opportunity to share and discuss FSA's efforts to support the American dairy sector.

Thanks to the work of many in this room, the 2018 Farm Bill established a much stronger dairy safety net. Over the past 2 years, pandemic relief and appropriations

laws provided additional support to address new challenges and stressors facing the dairy sector. Since the start of the Biden-Harris Administration, FSA has engaged with stakeholders and worked to implement provisions to support dairy farmers hard hit by the dual crises of the pandemic and devastating natural disasters.

Specifically, over the past year, FSA staff have worked tirelessly to find flexibilities in our existing dairy programs to be more responsive to the realities of dairy farming today. We have made key improvements to both our Dairy Margin Coverage (DMC) Program and our Dairy Indemnity Payment Program (DIPP) to meet the needs of our producers. We have also collaborated with our partners at the Risk Management Agency (RMA) and the Natural Resources Conservation Service (NRCS) to ensure we are working effectively across the Farm Production and Conservation (FPAC) mission area to best serve these producers. As we look ahead to the upcoming farm bill process, we look forward to providing technical assistance and working together to continue finding the best path forward to support American dairy producers. Additionally, just last week USDA Deputy Secretary Bronaugh signed a key Memorandum of Understanding (MOU) with the Innovation Center for U.S. Dairy, to continue our collaborative work on sustainability and reducing methane emissions with this important industry. The Innovation Center for U.S. Dairy was established in 2008 through the dairy check-off program. The MOU, which extends and builds upon a 2009 agreement, will facilitate cooperation to encourage the adoption of technologies and practices that improve sustainability and assist in addressing environmental needs of U.S. dairy farmers. We feel this MOU will further position the domestic dairy industry as a leader in sustainability.

In the remainder of my testimony, I will provide additional details on FSA's key dairy programs.

Dairy Margin Coverage

The DMC Program is a voluntary risk management program established in the 2018 Farm Bill that replaced the Margin Protection Program for Dairy (MPP-Dairy). DMC offers reasonably priced protection to dairy producers when the difference between the all-milk price and the average cost of feed falls below a certain level selected by the program participants. By providing flexible coverage options, DMC was crafted to better target small- and mid-sized dairy producers.

The last couple years have proven to be incredibly volatile for dairy producers. The monthly all-milk price for 2021 ranged from \$17.10 per hundredweight to \$21.80 per hundredweight, and the dairy margins varied from \$5.03 per hundredweight to \$9.53 per hundredweight. So far in 2022, the monthly all-milk price has ranged from \$24.20 per hundredweight to \$27.10 per hundredweight, with dairy margins ranging from \$10.98 per hundredweight to \$12.29 per hundredweight.¹ This swing in dairy prices and margins caused the 2022 forecast for net cash farm income for dairy businesses to increase by 58% relative to the previous year to \$382,100 per farm business. Still, we must interpret this data with an important caveat—that these incomes are not representative of the experience of all dairy farms, especially since “farm businesses” only include farms with annual gross cash farm income (GCFI) of at least \$350,000 or operations with less than \$350,000 in annual gross cash farm income but in which farming is reported as the operator's primary occupation.

Numbers for 2021

In 2021, DMC payments were triggered for 11 months for a total of \$1.2 billion paid to producers who enrolled in DMC for the 2021 program year, with an average payment of \$60,275 per operation. At 15¢ per hundredweight at the \$9.50 level of coverage, DMC is a very cost-effective risk management tool for dairy producers.

Performance for 2022

Ahead of the 2022 DMC signup which opened in December 2021, FSA made key improvements to DMC. Specifically, the program was expanded to allow dairy producers to better protect their operations by enrolling supplemental production, as authorized by the Consolidated Appropriations Act of 2021. Supplemental DMC provides \$580 million to better help our small- and mid-sized dairy operations that have increased production over the years but were not able to enroll that additional production. Specifically, eligible dairy operations with fewer than 5 million pounds of established production history can now enroll supplemental pounds based on a formula using 2019 actual milk marketings, which are resulting in additional payments. Supplemental DMC coverage is applicable to calendar years 2021, 2022, and

¹ <https://www.fsa.usda.gov/programs-and-services/dairy-margin-coverage-program/index#accordion-col-8>.

2023, which means that participating dairy operations with supplemental production history have been able to receive retroactive supplemental payments for 2021 in addition to payments based on their established production history.

In addition to rolling out Supplemental DMC, FSA updated the DMC and Supplemental DMC feed cost formula to better reflect the actual cost dairy farmers pay for high-quality alfalfa hay. FSA now calculates payments using 100 percent premium alfalfa hay rather than 50 percent of the premium alfalfa hay price and 50 percent of the conventional alfalfa hay price. This change is retroactive to January 2020 and provided additional payments of \$42.8 million for 2020 and 2021.

After rolling out these updates, FSA heard from stakeholders about the need for additional outreach and time for producers to make an enrollment decision. In addition to hosting a widely attended webinar, FSA conducted specific outreach with FSA cooperators, Tribal governments, State Outreach Coordinators, State Beginning Farmer and Rancher Coordinators, and other USDA Outreach Coordinators. FSA also extended the original DMC deadline to enroll in DMC and Supplemental DMC from February 8, 2022, to March 25, 2022. Continued interest in DMC is reflected in the increase in both 2021 and 2022 DMC enrollment numbers.

Dairy Indemnity Payment Program (DIPP)

In addition to DMC, FSA administers the Dairy Indemnity Payment Program (DIPP), which has historically provided indemnities to dairy producers for contaminated milk and milk products. In December 2021, FSA updated its DIPP regulation to better address the crisis of perfluoroalkyl and polyfluoroalkyl substances (PFAS) contamination. Specifically, dairy producers are now eligible to receive payments for the depopulation, or losses above normal mortality, of contaminated dairy cows. Applications are already available for cow indemnification under DIPP, and the program will now be able to provide much-needed compensation to dairy producers who must depopulate or lose their cows due to chemical contamination through no fault of their own. Here at FSA, we are also working closely with USDA's NRCS to target assistance through the Environmental Quality Incentives Program and other conservation programs to help producers safely dispose of and address resource concerns created by affected cows.

While I know that our updates to DIPP will provide critical assistance to impacted dairy operations in New Mexico and Maine, I also want to take a moment to recognize the reality that DIPP does not capture the scope of the problem when it comes to PFAS contamination on agricultural lands. Moreover, while New Mexico and Maine have been at the forefront of this crisis, the tragic reality of PFAS contamination extends far beyond these states. Unfortunately, the resources FSA has at the ready are not designed to comprehensively respond to these concerns. As we look ahead to the upcoming farm bill, USDA will continue to provide technical assistance in response to any requests from Congress, and the Administration looks forward to working this year with the Congress, partners, stakeholders, and the public to identify shared priorities for the 2023 Farm Bill.

Emergency Relief for Dairy Loss

I also want to touch on forthcoming disaster assistance for dairy producers. Over the past 2 years, dairy producers across the country have been hard-hit by more frequent and intense natural disasters. On September 30, 2021, President Biden signed into law the Extending Government Funding and Delivering Emergency Assistance Act (P.L. 117-43), which includes \$10 billion for necessary expenses related to losses of crops, including milk, due to wildfires, droughts, hurricanes, winter storms, and other eligible disasters experienced during calendar years 2020 and 2021. In addition to disaster assistance provided by farm bill programs, Congress designated \$750 million of this funding to assist livestock producers for losses in 2021 due to drought or wildfires. USDA is implementing this assistance using a two-phase process for both livestock and crop disaster assistance. The first phase of the Emergency Livestock Relief Program, which provides payments related to forage losses, was announced on March 31, and \$597 million in payments have been disbursed for the Emergency Livestock Relief Program as of June 2. I look forward to sharing additional details this summer regarding assistance to address milk loss.

Risk Management Agency (RMA)

Last, while it is outside the scope of my work at the FSA, I want to highlight the great work the Risk Management Agency (RMA) is doing to proactively help dairy farmers through the Dairy Revenue Protection (DRP) and the Pasture, Rangeland, and Forage (PRF) program.

Dairy Revenue Protection (DRP)

Dairy producers have seen significant expansion of Federal crop insurance offering the last several years. Through the Dairy Revenue Protection (DRP), dairy producers can protect against unexpected declines in their quarterly revenue from milk sales relative to a guaranteed coverage level.

While this product has only been offered for a few years, it covers approximately a quarter of the milk production in the United States. Livestock Gross Margin for Dairy Cattle is also available and provides protection when feed costs rise, or milk prices drop and can be tailored to any size farm. Modifications were made last year to allow dairy producers to purchase coverage on a weekly basis.

Pasture, Rangeland, and Forage Program (PRF)

RMA also offers the Pasture, Rangeland, and Forage (PRF) program, which is designed to provide insurance coverage on pasture, rangeland, or forage acres grown for the intended use of livestock grazing or haying. The PRF program allows producers to insure specific 2 month time periods, called index intervals, that are important to their operation. In doing so, the program is designed to help protect a producer's operation from the risks of forage loss due to a lack of precipitation.

Conclusion

In closing, I would like to emphasize FSA's commitment to keeping our nation's dairy producers in business for generations to come. I want to thank you for the opportunity to testify and for the support you have provided to USDA so that we can implement strong, inclusive programs. I look forward to continuing to work with this Committee to empower our producers to address new challenges, and I am happy to take any questions from the Committee.

The CHAIRMAN. Thank you very much, I appreciate that. And now, Ms. Coale, you are recognized. Begin when you are ready.

**STATEMENT OF DANA H. COALE, DEPUTY ADMINISTRATOR,
DAIRY PROGRAM, AGRICULTURAL MARKETING SERVICE,
U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.**

Ms. COALE. Good morning, Chairman Scott, Ranking Member Thompson, and Members of the Committee. Thank you for the opportunity to appear before you today to discuss USDA's implementation of select provisions of the 2018 Farm Bill, as well as the numerous other activities undertaken by the Agricultural Marketing Service, where the primary role is to facilitate the efficient marketing of milk and dairy products for the benefit of our nation's dairy farmers through increasing transparency in the marketplace. I am Dana Coale, Deputy Administrator of AMS Dairy Programs.

As someone who has worked with the dairy industry for more than 32 years, I have witnessed the turbulent landscapes that producers have faced over several decades. Most recently we have seen prices oscillate from near record lows to now record highs, while the margins vary widely across the country. Through all of this, I have seen America's dairy farmers continue to innovate, persevere, and put top quality dairy products on tables here and around the world. At USDA, we are committed to being a strong partner for dairy farmers, providing vital market information and programs to spur the development of more and better markets for America's dairy farmers both here and abroad. While my written testimony provides more detail on the wide range of activities conducted by AMS, I would like to briefly highlight some of our current activities that help our nation's dairy farmers.

The 2018 Farm Bill directed USDA to develop a program to reduce food waste and provide nutrition assistance to low-income individuals. The Milk Donation Reimbursement Program was established in 2019. Under the program, eligible dairy organizations

may apply for, and receive, limited reimbursements to cover donations of fluid milk products. Congress authorized \$9 million for the program in Fiscal Year 2019, and \$5 million for each fiscal year thereafter. In the Consolidated Appropriations Act of 2021 (Pub. L. 116–260), Congress expanded USDA’s authority to reimburse processors for donated dairy products and provide additional resources for the new Dairy Donation Program. An interim final rule implementing this program was published on September 1, 2021. To lessen the burden on participating entities, and gain administrative efficiencies, the programs are administered jointly, while still maintaining separate funds from which payments are made, according to the separate program rules.

The 2018 Farm Bill also authorized the establishment of at least three Dairy Business Innovation Initiatives, which was expanded to four in 2021, to support dairy businesses in the development, production, marketing, and distribution of dairy products. The DBI initiatives provide technical assistance to dairy businesses and provide sub-awards to dairy businesses as well. The DBI businesses approach of providing both technical assistance and sub-awards serves as a unique and very effective model. In order to improve regional dairy supply chain resiliency, support processing capacity expansion, and increase technical assistance service to local and regional dairy businesses, USDA invested, just this week, an additional \$80 million in DBI funding from the American Rescue Plan (Pub. L. 117–2). The four DBI partners are now able to reach dairy producers and processors in nearly 40 states.

The Pandemic Market Volatility Assistance Program was authorized and funded under the CARES Act of 2021 (P.L. 116–136), and provided much needed pandemic assistance payments to dairy farmers, who received a lower value for their milk due to market abnormalities occurring during the pandemic. Under the program, payments reimbursed qualified dairy farmers for 80 percent of revenue losses for fluid milk sales from July to December of 2020 on an annual production of up to 5 million pounds. USDA distributed the funds to producers through their handlers and implemented a robust oversight system to ensure accurate payments were distributed to producers within the 30 days of a handler receiving the money. A key part of the program was a required producer educational component on the PMVAP Program, and other dairy topics.

Finally, the origin of livestock final rule was published in the *Federal Register* on April 5, 2022. This rule provides clear and uniform standards about how and when livestock may be transitioned to organic dairy production, and how transitioned animals are managed.

Thank you for the opportunity to be here today, and we look forward to working with the Committee as you draft the next farm bill. I would be happy to address any questions you have. Thank you.

[The prepared statement of Ms. Coale follows:]

PREPARED STATEMENT OF DANA H. COALE, DEPUTY ADMINISTRATOR, DAIRY PROGRAM, AGRICULTURAL MARKETING SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to appear before you today to discuss the U.S. Department of Agriculture's (USDA) implementation of select provisions of the Agriculture Improvement Act of 2018 (2018 Farm Bill) as well as the numerous other activities undertaken by the Agricultural Marketing Service (AMS) to facilitate the efficient marketing of milk and dairy products for the benefit of our nation's dairy farmers.

I am Dana Coale, Deputy Administrator of AMS' Dairy Program, and as someone who has worked with the dairy industry for 32 years, I've witnessed the turbulent landscapes that producers have faced over the last several decades. More recently, we've seen milk prices oscillate from near-record lows to now record highs. Through all of this, I've seen America's dairy farmers continue to innovate, persevere, and continue to put top quality dairy products on tables here and around the world. At USDA, we are committed to being a strong partner for dairy farmers, providing vital market information and programs to spur the development of more and better markets for America's dairy farmers at home and abroad.

We appreciate the tools that Congress has provided to the agency through the 2018 Farm Bill and subsequent legislation. In addition to a summary of those farm bill provisions, my testimony today will discuss other key AMS dairy programs and activities.

Milk Donation Reimbursement Program and Dairy Donation Program

The 2018 Farm Bill directed USDA to develop a program to reduce food waste and provide nutrition assistance to low-income individuals. The Milk Donation Reimbursement Program was established in a Final Rule published on September 5, 2019. Under the program, eligible dairy organizations that account to a Federal Milk Marketing Order market-wide pool and incur qualified expenses related to certain fluid milk product donations may apply for and receive limited reimbursements to cover those expenses. The program is intended to reduce food waste and provide nutrition assistance to low-income individuals. Congress authorized \$9 million for the program in Fiscal Year 2019, and \$5 million per fiscal year thereafter.

In the Consolidated Appropriations Act, 2021, Congress expanded USDA's authority to reimburse processors for donated dairy products, including those in addition to fluid milk, and provided additional resources for the new Dairy Donation Program (DDP). An Interim final rule implementing this program was published on September 1, 2021. To lessen the burden on participating entities and gain administrative efficiencies, the programs are administered jointly, while still maintaining separate funds from which payments are made according to the separate program rules. The program began making reimbursement payments this spring.

Dairy Business Innovation Initiatives

The 2018 Farm Bill authorized the establishment of at least three Dairy Business Innovation (DBI) Initiatives to support dairy businesses in the development, production, marketing, and distribution of dairy products. The DBI Initiatives provide technical assistance to dairy businesses and use at least 50% of the award for subawards to dairy businesses, including makers of niche dairy products, such as specialty cheese, or producers of dairy products derived from the milk of a dairy animal, including cow, sheep, and goat milk. For example, the University of Wisconsin's Center for Dairy Research partners with the Wisconsin Cheese Makers Association to test new ingredients and conduct trials of new cheeses. The DBI Initiatives' approach of providing both technical assistance and subawards to dairy businesses serves as a unique and effective model by facilitating the development of critical relationships with local dairy producers and processors to support their on-the-ground needs. For example, the Vermont Agency of Agriculture, Food, and Markets made marketing and branding consultants available to help dairy businesses pivot their business strategies in response to the pandemic.

In Fiscal Year 2019, which was the DBI Initiative's first year with funding, AMS competitively awarded \$1.36 million to three initiatives to fulfill the purpose of the program: the University of Tennessee, the Vermont Agency of Agriculture, Food & Markets, and the University of Wisconsin. In Fiscal Year 2020, AMS awarded \$18.4 million in additional funds to the current Initiatives to continue the work started under their previous awards. On November 8, 2021, AMS announced \$18.4 million, to be evenly split among the three current initiatives and an additional \$1.8 million for a new initiative at California State University Fresno Foundation. Each of these centers serve a multi-state region, such as the northeast, to reach stakeholders across broad geographic regions.

In order to improve regional dairy supply chain resiliency, support processing capacity expansion, and increasing technical assistance services to local and regional dairy businesses, USDA announced on March 2, 2022, an additional \$80 million in funding to support long-term resilience in the dairy industry. This American Rescue Plan funding provided the four DBI partners the opportunity to submit an additional proposal to further dairy processing capacity expansion, on-farm improvements, and technical assistance to producers. On June 20, 2022, USDA awarded this \$80 million in additional funding and announced a new DBI Request for Applications for \$22.9 million in appropriated funding for Fiscal Year 2023. It's important to note that with this supplemental \$80 million in funding, the reach of the DBIs was extended from 30 to 39 states.

Extension of Dairy Forward Pricing Program

The 2018 Farm Bill extended the Dairy Forward Pricing Program until September 30, 2023. This program allows farmers to voluntarily enter into forward price contracts with handlers for pooled milk used for Class II, III, or IV products under the Federal Milk Marketing Orders. The program allows regulated handlers to pay farmers in accordance with the terms of a forward contract instead of paying the minimum Federal Order blend price for pooled milk. The final rule extending the program was published on March 1, 2019.

Class I Skim Milk Price

The 2018 Farm Bill amended the Class I skim milk price formula for milk pooled under Federal Milk Marketing Orders. Per Congress's direction, the Class I skim milk price became the simple average of the monthly advanced pricing factors for Class III and Class IV skim milk, plus \$0.74 per cwt, plus the applicable adjusted Class I differential. Prior to this amendment, the Class I skim milk price was the higher of the two advanced pricing factors, plus the applicable adjusted Class I differential. The final rule amending the formula was published on March 11, 2019.

Pandemic Market Volatility Assistance Program

The Pandemic Market Volatility Assistance Program (PMVAP) was authorized and funded under the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2021 and provided much-needed pandemic assistance payments to dairy farmers who received a lower value due to market abnormalities occurring during the pandemic. Under the PMVAP, payments reimburse qualified dairy farmers on an annual production of up to 5 million pounds of milk, for 80 percent of revenue losses for fluid milk sales from July 2020 through December 2020. The payment rate varies by region based on the actual losses on pooled milk related to price volatility.

USDA disbursed funds to handlers to provide to their eligible dairy farmer suppliers. After receiving the payments, handlers had 30 days to make payments to their eligible dairy farmer suppliers. Handlers began payments to farmers in January 2022. USDA has implemented a robust oversight system to ensure accurate and verified payments are distributed by handlers to qualifying dairy farmers within 30 days of a handler's receipt of the money.

As part of the program, handlers provided virtual or in-person education to dairy farmers on the program and other dairy topics, selecting from educational information available from USDA or other sources. Handlers were paid a limited reimbursement for administrative costs and the dairy policy education they provided.

Market News

One of AMS' most important functions is *Market News* which collects, analyzes, and disseminates current market information to assist producers and marketers of farm products and those in related industries in making critical daily decisions. *Market News* information covers local, regional, national, and international markets and includes data on supply, movement, contractual agreements, inventories, and prices for numerous agricultural commodities, both conventionally and organically produced. Reported commodities include cotton, cottonseed, and tobacco; dairy products; fruits, vegetables, and ornamentals; and livestock, meat, grains, poultry, and eggs. There are over 470 unique market reports disseminated from over 45 *Market News* offices across the country.

Market News continues to expand its organic market price reporting services, increasing the products and markets covered by boosting outreach to reporters and industry contacts in the organic sector. *Market News* has added new organic products and expanded overall organic coverage at each of the market levels reported—shipping point, wholesale/terminal markets, and retail. The AMS *Market News* organic webpage focuses on market reports detailing over 300 different grains, feedstuffs, eggs, specialty crops, and dairy products. The AMS Weekly Retail Organic Price Comparison report shows price differences between organic and conven-

tional products to assist stakeholders in analyzing commodity sales and consumers' willingness to pay for organic products.

Federal Milk Marketing Orders

Federal Milk Marketing Orders (FMMOs) establish certain provisions under which dairy processors purchase fresh milk from dairy farmers supplying a marketing area. In Federal Order provisions, dairy processors are referred to as handlers and dairy farmers are known as producers. A marketing area is generally defined as a geographic area where handlers compete for packaged fluid milk sales, although other factors may be taken into account when determining the boundaries of a marketing area. Federal Orders serve to maintain stable marketing relationships for all handlers and producers supplying marketing areas. Federal Milk Marketing Orders were established in the 1930s by Congress and have been continually modified, at industry request (most recently in 2019), to evolve into the system we have today. The program carries out its objectives by establishing minimum milk prices participating handlers must pay to producers, ensuring timely and accurate payments to producers, and providing robust market information. The provisions work together to facilitate the complex process of marketing fresh milk.

Research and Promotion Programs

Since 1966, Congress has authorized industry-funded research and promotion boards, also known as check-offs, to provide a framework for agricultural industries to pool their resources and combine efforts to develop new markets, strengthen existing markets and conduct important research and promotion activities. AMS oversees 22 research and promotion programs, which generate more than \$900 million in assessments annually. The strategic direction for activities conducted by research and promotion programs is determined by a board of directors appointed by the Secretary of Agriculture. AMS ensures that those boards properly account for all program funds and administer the programs in accordance with their authorizing statutes and Orders. Boards are required to post their bylaws; annual budget summaries; annual reports containing information about board activities, projects, and administrative expenses; annual Certified Public Accountant financial audit report; and most recent independent economic evaluation to their website.

AMS oversees two research and promotion dairy programs. The Dairy Research and Promotion Program is a national producer and importer program for dairy product promotion, research, and nutrition education. It is the largest of all commodity check off programs generating \$346.7 million annually. To fund the program, U.S. dairy farmers pay a 15¢ per hundredweight assessment on their milk and importers pay 7.5¢ per hundredweight on dairy products imported into the U.S.

The Fluid Milk Processor Promotion Program develops and finances a generic advertising program designed to maintain and expand markets and uses for fluid milk products produced in the U.S. Processors marketing more than 3 million pounds of fluid milk per month pay a 20¢ per-hundredweight assessment on fluid milk processed and marketed in consumer type packages in the U.S. This program generates \$85.7 million annually. The Dairy and Fluid Milk boards fund a variety of programs and activities including consumer marketing and education, product innovation and partnerships, nutrition research, exports, and childhood health and wellness, and climate change solutions.

The provisions contained in the authorizing statutes, the Dairy Production Stabilization Act of 1983 and the Fluid Milk Promotion Act of 1990, may be amended by Congress. The National Dairy Promotion and Research Board and the Fluid Milk Processor Promotion Board may recommend to the Secretary of Agriculture amendments to the Dairy Production and Research Order and the Fluid Milk Order. Amendments to the programs are conducted through the rulemaking process in the Federal Register.

Origin of Livestock

The Origin of Livestock final rule was published in the *Federal Register* on April 5, 2022. This rule provides clear and uniform standards about how and when livestock may be transitioned to organic dairy production, and how transitioned animals are managed within the organic dairy system. Now, all organic dairy livestock producers will have the confidence and certainty they are operating in a fair and competitive market.

Some organic certifiers and dairies had not been consistently implementing these requirements. Therefore, the organic industry sought further rulemaking to eliminate the inconsistencies and what they viewed as some producers avoiding the significant costs and time investments required under statute.

AMS-accredited certifiers visit every certified organic dairy yearly. AMS is working with them to ensure the inspectors understand and apply the new regulation

consistently, to ensure all organic dairies are held to the same standard. In addition to the inspections by certifiers, the ongoing organic livestock compliance project targets Federal surveillance and unannounced inspections based on risk factors that include operation size, complexity, and compliance history to better enforce uniform compliance with the organic standards.

Conclusion

Thank you for the opportunity to be here today and we look forward to working with the Committee as you work to draft the 2023 Farm Bill. I would be happy to address any questions you may have.

The CHAIRMAN. Thank you and thank you to the both of you. At this time Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members, and you will be recognized for 5 minutes each in order to allow us to get in as much time, and as many questions, as possible. And as always, please keep your microphones muted until you are recognized so that we can minimize noise. I recognize now myself for my 5 minutes of questions.

Let me start with you, Mr. Marlow. I have been hearing a lot about Dairy Margin Coverage from our producers. Tell us, how has Dairy Margin Coverage enrollment changed since it replaced the Margin Production Program after the 2018 Farm Bill? Tell us, what type of feedback has the Department received from dairy farmers since DMC was first implemented?

Mr. MARLOW. Thank you very much, Chairman Scott. The Margin Protection Program, which you recognized, was a transition in dairy programs to a risk management-based—essentially a risk management-based program. DMC then expanded on that program. What we have seen as we have moved into DMC, and we have made a series of improvements to the program, DMC, in the transition from MPP Dairy, lowered the cost of the protection, increased the level of protection that producers could get, and a series of other improvements.

Since the start of the Administration, we have made a series of improvements again to DMC. These include changing the calculation of the cost of feed to include 100 percent high quality alfalfa hay instead of just 50 percent so that it more accurately represents the cost that producers are facing. Also, with Congress' authority, we created Supplemental DMC, which allowed producers who had increased production from the time that they set their production history back in 2011, 2012, 2013, who had increased their production, to increase their coverage under DMC. And that—the introduction of Supplemental DMC, it put an extra \$580 million into the program.

The CHAIRMAN. And so where do you see, or what do you see, we could do in this farm bill to improve this program?

Mr. MARLOW. The changes that we have made so far are very much in response to the input that we have gotten from farmers. Supplemental DMC was an important step. Both DMC and Supplemental DMC are equivalent, so it would be very easy to combine the two, or to make that a permanent change.

The CHAIRMAN. So, you are saying sort of steady as we go, we are okay right now, you don't see us making any changes?

Mr. MARLOW. Well, we are happy to provide technical assistance, and look at any suggested reforms, but we made extensive changes and improvements to the program over the last couple of years,

and believe that it is, in concert with the Risk Management Agency programs, a strong safety net.

The CHAIRMAN. Okay. That is fine. Deputy Administrator Coale, when discussing any potential changes to our Federal Milk Marketing Orders, what are your thoughts regarding the procedure for implementation?

Ms. COALE. Thank you for the question, Chairman Scott. I believe that the process that we utilize to make amendments within the Federal Milk Marketing Order system is one that provides for clear transparency, and, most importantly, it stimulates and encourages industry participation. USDA must respond to the industry, rather than USDA leading, so it is an opportunity for the industry to present issues before the Department, and then we can work with them to determine if we need to go through rulemaking proceeding, but it is a very collaborative process.

The CHAIRMAN. Well, we on the Committee, we have seen—shall I say a reluctance to initiate this process within the industry. Is that your impression?

Ms. COALE. That is not my—

The CHAIRMAN. Within USDA.

Ms. COALE. Within USDA, that is not my impression. We spend a considerable amount of time, and I personally have traveled throughout the United States, talking with dairy producers, with cooperatives, with processors, regarding what kind of changes might be made to the Federal Order system.

The CHAIRMAN. And let me ask you also, what have you heard from industry on changes to structure, and do we in Congress need to act?

Ms. COALE. With regard to structure, I am not exactly certain what you are referring to with that. Is it the structure of the Federal Order system, or is it the structure within the industry?

The CHAIRMAN. Well, what we are trying to find out is—I will say within the industry.

Ms. COALE. Okay. I think that the Federal Order system is a program that is designed to work in the current structure, as well as in any future structure of the industry. The Order system adapts and changes on a regular basis to reflect what is happening within the industry itself, and that is based on proposals that the industry brings forward to the Department.

The CHAIRMAN. Okay. Thank you very much. Ranking Member, I now recognize you for your questions.

Mr. THOMPSON. All right. Well, thank you to both our witnesses from the USDA for your service and leadership. Ms. Coale, I appreciate the Department's work implementing the Dairy Donation Program we created to provide needed dairy products for families in need, while also minimizing food waste. This is a great win-win, in my opinion. As you have implemented the program, can you talk about the successes you have seen so far, as well as any areas for improvement that we could help to refine in order to make sure the program is used to the fullest potential?

Ms. COALE. Thank you, Ranking Member Thompson. I would agree with you, the Dairy Donation Program is a fantastic program, and it was really designed to take a situation where dairy farmers were dumping milk and put that into consumers who real-

ly needed to have that nutritional product, so the premise on which the program has been established is wonderful.

At this particular time, we are in the infancy, as far as implementing the Dairy Donation Program. As you know, we implemented the Milk Donation Reimbursement Program as part of the last farm bill. That program did not receive enough publicity, and enough participation, I think partially because of the reimbursement level, and that has been corrected through the Dairy Donation Program, where reimbursements are more reflective of what the costs are being incurred for those donations. So, I think at this particular time we need to see how the program further develops. Any assistance in encouraging processors and feeding networks to participate in the program is always welcome, and we are working on increasing the awareness of the program.

Mr. THOMPSON. Well, thank you. And we are certainly open to, as implementation proceeds, any suggested refinements as we prepare for the next farm bill. Mr. Marlow, I was glad USDA incorporated the dairy quality alfalfa price point, you mentioned that, into the Dairy Margin Coverage formula. We included language in the 2018 Farm Bill directing NASS to include that price point in their monthly surveys, enabling you all to make this change, and I am pleased with this improvement, as it makes our dairy safety net more reflective of actual farmer feed costs. Can you talk about how this change has impacted producer payments under the program?

Mr. MARLOW. Prior to that change, the feed costs were calculated based on 50 percent high value alfalfa. The change made a significant increase in payments. There are two factors to this. One is that we made it retroactive to 2020, so that farmers were able to receive payments for both 2020 and 2021. Also, this is a permanent change to the program. Having this change in the program will affect the baseline, and our conversations as we go into the new farm bill. So it has provided a series of benefits.

Mr. THOMPSON. Well, I am so thankful that, when we set the Dairy Margin Coverage, we based it on margin. I think it was *Southern Ag* that had a blog on Monday this week that talked about hundredweight prices topping \$27 per hundredweight. I didn't think we were going to see that. Unfortunately, agriculture is a business, right? And at the end of the day, it is the margin that matters, so I am, again, very thankful that we based our safety net for dairy on margin. That is probably something we need to look at for other commodities.

So, Mr. Marlow, the escalating cost of inputs that is making that high commodity price is not really beneficial, do we have a mechanism, or additional mechanisms to consider any of those input costs for further adjustment within the Dairy Margin Coverage?

Mr. MARLOW. We are very concerned about the margins, and, as you just said, I think it is very important that the DMC focused on the margin, and not just the price in the marketplace. We know that producers are facing inflation on costs far beyond just the feed costs that are part of the calculation. This is part of a much broader strategy on inflation that the Administration is taking on, which includes looking at a series of issues, including labor, and also freeing up trade, freeing up trade and the movement and transpor-

tation, and a series of issues that we are taking on. But at this point, and I agree with you and the Chairman, that this margin-based coverage has proven to be extremely important in terms of addressing the costs that you are talking about, and is something that we need to look at in terms of other commodities.

Mr. THOMPSON. All right. Thank you so much. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you. And now the gentleman from California, Mr. Costa, who is also the Chairman of the Subcommittee on Livestock and Foreign Agriculture, is recognized for 5 minutes.

Mr. COSTA. Thank you very much, Mr. Chairman, for this important informational hearing as we set the table for the reauthorization of next year's farm bill. Clearly, we understand that the dairy industry is such an important component of American agriculture, and it has variations on a regional basis, as we are already discussing. As a third-generation dairy—son of three generations of dairy family in Fresno, California—from the time I was a young man until I was in my early 20s I worked on our family's dairy—I understand the trials and the challenges that we face, a business that is 365 days a year in which the cows must be milked, the volatility that we have seen not only in recent years, but it is part of the history of dairy in America. So this hearing is near and dear to my heart, as California is the leading dairy state in the nation. We are producing 20 percent of the milk products for the entire country, a total milk production of over 41 billion pounds last year.

My district is one of the top ranking dairy producing districts in the nation, so as we talk about how we make changes, and how we adjust, in light of the pandemic and other factors, I think it is very important, for the 2023 reauthorization bill, that we examine the safety net provisions, whether we are talking about the Dairy Margin Coverage Program, or other issues in terms of the Dairy Forward Pricing Program that involve risk management. Clearly we are fortunate to have a situation where organizations that work closely with Members of the Committee, and I think there is a consensus—a bipartisan consensus here, whether we are talking about National Milk Producers Federation, International Dairy Foods Association, Dairy Farmers of America, or California Dairy, Inc., that I work very closely with.

What we have seen is extreme volatility during this pandemic, with price per hundredweight dropping down below \$10 per hundredweight, now we see it at \$27 per hundredweight. That volatility, and those input costs, I think demonstrates the risky nature of this business. And so I want to—and commend the USDA for their efforts, going back to 2020, making it retroactive, and including the alfalfa pricing, as a number of Members have mentioned, I think was the appropriate thing to do, because these are part of the input costs. But I think the \$5 million cap, frankly—and, again, one size doesn't fit all, but it is really discriminatory to California, where our 1,200+ dairy producers exceed that amount, and so that is something that I would like to bring to the Committee's attention.

My first question is to Ms. Coale. As you are aware, the State of California conducted statewide processing under the old system before we joined the Federal Milk Marketing Order to ensure that

we understood the data, as a vital resource, would be included in cost allowance. Can't we do better on the Federal Marketing System to update that data collection services, and what would you need to ensure that to occur?

Ms. COALE. Thank you, Congressman Costa. You are correct in that the California Department of Food and Ag had a robust manufacturing cost survey that they conducted when there was a California State Order. When California became part of the Federal Order System, that manufacturing cost survey was no longer continued by CDFA. Currently at USDA, we do not have the authority to conduct a mandatory manufacturing cost survey so that—

Mr. COSTA. Could that be something we consider under the reauthorization of the new farm bill?

Ms. COALE. That would certainly be something that would need to be authorized under the upcoming farm bill.

Mr. COSTA. And what level of funding would you need to do that?

Ms. COALE. That is a great question.

Mr. COSTA. Get back to us, because I want to pursue that.

Ms. COALE. Okay. We can get back to you with the information on how much we will need for that funding. Thank you.

Mr. COSTA. And when we talk about—and maybe both of you might want to respond, I have limited time here, but the Federal Milk Marketing Order for Class II, III, and IV purposes, reauthorized in the 2018 Farm Bill, is set to expire. You think—it is a very valuable risk management tool. Do you think we ought to permanently include that? You can say yes or no because of limited time.

Ms. COALE. Yes.

Mr. COSTA. Okay. My time has expired. Thank you very much, Mr. Chairman.

The CHAIRMAN. The gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman. I appreciate this discussion today, and the key element that dairy is for my home state, and district, and following up with Mr. Costa on that, we do see California as a major, major producer, and the challenges they have faced from state regulations and market conditions—let me launch right into a couple thoughts here for Deputy Administrator Coale. On Dairy Forward Pricing Program, as far as how producers take this, what do you think the great benefit will be from permanent authorization of the program?

Ms. COALE. I think if that—forwarding contracting on Class II, Class III, and Class IV were made permanent, the industry would have a good understanding and appreciation to use the program more robustly than they currently do, because there is always the concern that, at the end of a farm bill, it may not be reauthorized in the next one.

Mr. LAMALFA. Farm bills aren't easy to pass around here. It is tougher every 5 years, it seems, to get it done, with a lot of misinformation put out about them and such, but on the farmer's side of it, which represents about 20 percent of the spending is more critical than ever that we have it, no real downside on permanency that you would see, as far as having to change it with further legislation? Would it be pretty linear over time?

Ms. COALE. Absolutely, as long as it continued for Class II, Class III, and Class IV.

Mr. LAMALFA. Okay, thank you. And, Administrator Marlow, the Emergency Livestock Relief Program related to forage losses for the last couple years, of course, bringing it back home to my home state, and the western states, where we have had such drought problems and lack of availability of forage, of feed, at good pricing, and it is going to be that way in 2022 with that crop as well, what further work can we do to streamline an emergency program like this to make sure that the producers are getting relief as soon as possible, since they are not as likely to be able to float this cash-wise with other increased expenses, *et cetera*?

Mr. MARLOW. That time lag, in terms of the time between disaster and payment, is something that we are very focused on, and administering this program would leverage the applications that farmers had already filled out to streamline that application process and build on information that we already have.

Mr. LAMALFA. So you don't have to reinvent the wheel with a new application? Just change the dates, pretty much, and it will be much quicker?

Mr. MARLOW. We were able to use the information from farmers' Livestock Forage Program applications to essentially be the application for this program. We have now disbursed \$590 million into farmers' pockets without them ever having to fill out an application, or go into their local offices.

Mr. LAMALFA. But there is still accountability the taxpayers would demand and expect, right?

Mr. MARLOW. Absolutely.

Mr. LAMALFA. Yes. Okay. So, as we have seen, that Congress did pass the funding in September of 2021, but the program didn't come into place until end of March in 2022, so you don't see further delays like that coming forward, like—happening for what is in the pipeline, or maybe possible 2022 claims next year?

Mr. MARLOW. Well—

Mr. LAMALFA. A 6 month gap?

Mr. MARLOW. What I would encourage us to look at is not just the time until the program is announced, but the time to actual cash in farmers' pockets. On ELRP alone, we had money going into farmers' pockets within just a couple of weeks of the program being announced.

Mr. LAMALFA. Beautiful.

Mr. MARLOW. We are now on Emergency Relief Program-Phase One. That program was announced approximately a month ago. We now have over \$3 billion that has been disbursed. Those checks are out, and in farmers' pockets. We are now in the process of looking for Phase Two. What we are charged with on phase two is filling in the gaps and addressing those who have not received those benefits. We are moving forward as quickly as we can to finish out the disaster programs.

Mr. LAMALFA. Okay. Good, good. I appreciate—that is a good report. Thank you for that. So, Mr. Chairman, I will yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from Ohio, Ms. Brown, is recognized for 5 minutes.

Ms. BROWN. Thank you, Chairman Scott, and Ranking Member Thompson, for holding this hearing today, and thank you to both of our panels for being here today. Dairy products of all kinds are an important component of USDA's food distribution programs. Programs such as The Emergency Food Assistance Program, the Commodity Supplemental Food Program, and the Food Distribution Program on Indian reservations are unique in that they utilize only U.S. grown and produced products. These programs are critical to our nation's farmers, farm economy, and food security. CFAP bonus commodity purchases are particularly unique, as they are driven by the need for agriculture commodity support when the market price of commodities falls, and those purchases are made by Agricultural Marketing Service and Farm Service Agency.

So my question is, Deputy Administrator Marlow and Deputy Administrator Coale, can you speak about how our USDA food distribution programs, including CFAP bonus purchases, serve these important dual purposes of supporting food-insecure families, as well as our nation's farmers, in particular dairy farmers? Thank you.

Ms. COALE. Thank you for the question, Congresswoman Brown. The food programs that we have at USDA are vital to both the agricultural producers who grow the food that is purchased through the Commodity Procurement Program at the Agricultural Marketing Service, and then distributed through the various programs offered and developed through the Food and Nutrition Service. This is not our particular area of expertise, and I would encourage you to contact us to give you the individuals at the Food and Nutrition Service who would be happy to go into detail on the specific programs that you are asking about. But anytime that USDA can deliver food to individuals who need nutrition assistance, it is a benefit to everyone in the agricultural sector, so thank you so much for that question.

Ms. BROWN. Thank you. Along similar lines, can you speak to how the Supplemental Nutrition Assistance Program supports dairy farmers by ensuring that low-income Americans can afford to purchase their products?

Ms. COALE. Once again, this would be a question that I would defer to my colleagues in the Food and Nutrition Service, and what I can say is that we are actively, and have recently, increased the amount of fluid milk that is available through feeding networks, which is something that USDA implemented recently. We also are working on developing, through various programs, the opportunities for food banks to have refrigeration systems so that the nutritious dairy products are available to them as well. Again, specifics could be answered best by our colleagues at the Food and Nutrition Service regarding the specific SNAP program.

I might indicate as well that the Dairy Donation Program, which is administered within the Agricultural Marketing Service, is one program that is truly designed to connect the consumer with products that are donated, and it is to provide a direct benefit to the dairy farmer in that milk that might have been dumped on the farm can be manufactured and put into the feeding networks for those low-income individuals to have the nutritious product.

Ms. BROWN. All right, excellent. Well, thank you for sharing that information, I appreciate it. And with that, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman from Indiana, Mr. Baird, is recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman, Ranking Member, for holding this session. Mr. Marlow, my question deals with the 2022 DMC signup. In other words, that was expanded or opened in December of 2021, and it has key provisions for helping small- and mid-sized producers to sign up for a supplemental production. Could you elaborate on that?

Mr. MARLOW. Thank you, Congressman, for the question. When DMC was established, farmers were able to establish their history of production based on either the 2011, 2012, or 2013 years. Many farmers had not reached the 5 million pound cap yet. So what Supplemental DMC did was allowed farmers to essentially enroll that supplemental production, that was between what they had established in 2011 or 2012, and the 5 million pound cap in the program, increasing their risk management for their operations.

Mr. BAIRD. So can you elaborate on—are there any issues that we need to tweak in that program, that you are aware of, or has it been working well enough to leave it alone?

Mr. MARLOW. With the changes that we have made over the last year, we have gotten very positive feedback from dairy producers on the current status of the program. We look at the opportunity possibly to combine Supplemental DMC with DMC, and make that a more permanent part of the program. This would allow farmers to update their production history, and the amount that they can enroll in the program. We continue to seek and receive feedback from producers in terms of the types of changes that we have already made, and we will continue to be aggressive about communicating with the producers, and responding to that feedback, and look forward to providing technical assistance on any suggestions that come from this hearing, or other conversations in preparation for the farm bill. Thank you.

Mr. BAIRD. Thank you. Thank you very much. I am going to turn now to Deputy Administrator Coale. The 2018 Farm Bill is probably going to serve as the base, certainly for what we do in the 2023, but I am interested in the Dairy Forward Pricing Program that is extended until September of 2023. I want to know what classes of milk, and I think it is II, III, and IV, that are covered in that extension, and how that has been working.

Ms. COALE. Thank you, Congressman, for the question. The Dairy Forward Pricing Program is working very well, as it was authorized within the last farm bill and previous farm bills. The application of forward contracting does apply to Class II, Class III, and Class IV uses of milk, and I think that is the appropriate continuation of the program. At the current time we see the program probably utilized most in the upper Midwest region of the U.S., and potentially the program would be utilized a bit more if there were permanent authorization for the program, although that is something that we don't have any information on. But the individuals who do utilize the program, the feedback that I get from the dairy

sector is that it works very positively, and is a valuable risk management tool for the producers who do use it. Thank you.

Mr. BAIRD. Thank you, and thank you, both witnesses, for your responses, and I yield back.

The CHAIRMAN. The gentlewoman now from North Carolina, Ms. Adams, who is also the Vice Chair of the House Agriculture Committee, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Chairman Scott, and Ranking Member Thompson, for having this hearing, and to our witnesses, thank you for testimonies that continue to help Members of the Committee prepare for the farm bill. We can see that the subsidy policies discussed today are effective for producers and consumers across the board. I would like to see similar farm bill subsidies and programs improve conditions for fresh produce growers as they continue to face barriers to expanding their production, advocating for subsidies that support dietary guidelines for all Americans, meaning that we need to remove these barriers.

So, Deputy Administrator Coale, I would like to discuss the dairy safety net programs, and their ability to withstand market disruptions. So, if these programs are working well, why were additional payments, including \$350 million in Pandemic Market Volatility Assistance payments necessary?

Ms. COALE. Thank you for the question, Congresswoman. The payments that were distributed and are currently still under distribution for the Pandemic Market Volatility Assistance Program, resulted from market abnormalities that occurred during the pandemic. In the 2018 Farm Bill, Congress authorized a change to the Class I price mover, and we implemented that in the Department in 2019. As was mentioned earlier this morning, this change in Class I mover was a consensus agreement reached by the National Milk Producers Federation and the International Dairy Foods Association to benefit the entire industry, and implementation in the farm bill was designed to be revenue neutral.

However, at the time it was implemented, nobody foresaw a pandemic occurring, and, more importantly, nobody even could have projected the implications that that pandemic would have on all agricultural market prices, and particularly within the dairy sector. So, a provision that was intended to be revenue neutral, what we saw occur between a period of mid-2020 through mid-2021 was a result in a significant change in that revenue neutrality. If you look at the Class I mover prior to the pandemic, and the Class I mover as we are moving out of the pandemic, it is maintaining pretty much a revenue neutral position, compared to the prior mover. However, during that pandemic period, due to the price inversions that occurred, we had some major losses that were incurred by the dairy sector, and hence USDA stepped up to help provide assistance that was needed to those dairy producers during that period of time. Thank you.

Ms. ADAMS. Thank you. Mr. Bozic, you mentioned long-term trends in the U.S. dairy industry, and the continued decrease in demand, so can you explain or speak to how farm bill programs can aid milk prices, and stabilize a volatile market?

The CHAIRMAN. I believe that was—who did you direct that to?

Ms. ADAMS. Well, any of the panelists can answer that.

The CHAIRMAN. Okay. Would any of you—

Ms. COALE. All right, I will go ahead and answer that question. I believe it was directed towards my colleague, but I will be happy to try and step in.

The CHAIRMAN. Go right ahead.

Ms. COALE. USDA has several programs to help assist dairy producers, and I think it is important that all of these programs are a package that work together, and many of them are dependent upon the producer actually taking the initiative to participate. So if a producer wants to participate in a forward contracting program to lock in a particular price, they need to invest, and take the time to understand the program, and sign up for the program. Likewise, the programs that Deputy Administrator Marlow administers in the Farm Service Agency also require signup by those producers.

Working collectively, USDA tries to assure that there are various opportunities for producers to ensure that they have viability going forward in the future because, of course, American agriculture is the essence of USDA.

Ms. ADAMS. Well, thank you very much. Mr. Chairman, I am going to yield back.

The CHAIRMAN. All right, thank you. And now the gentleman from Ohio, Mr. Balderson, is recognized for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman. Panel, thank you for taking time to be here today. My first question is for Deputy Administrator Coale, Federal Milk—

The CHAIRMAN. Excuse me a moment. Members, remember, check your microphones. Let us keep them muted until you are recognized. Thank you. You may continue.

Mr. BALDERSON. Thank you, Mr. Chairman. Again, this is for Deputy Administrator Coale. Federal Milk Marketing Order price formulas use the average cost of manufacturing a pound of four specific dairy products. AMS released a cost processing study earlier this year which accounted for data from October 2017 to December of 2020. Prior to this data collected from a 2006 and 2007 cost of processing study was being used. This was touched on earlier by Mr. Costa, but can you elaborate further on the benefits of conducting cost of processing studies more often?

Ms. COALE. Thank you for that question, Congressman. I do believe that, in the Federal Milk Marketing Order price formulas, we are using make allowances, and there were benchmarks that we could utilize to determine if those make allowances were staying in touch with reality, as far as what was happening in the manufacturing sector. And, without the California Department of Food and Ag, without their make allowance study, there really is no information, so USDA progressively has worked with Dr. Mark Stevenson to have a manufacturing cost study. It is a voluntary study, and the information, obviously, was not as robust as what the industry was hoping for, nor was it as robust as what USDA was hoping. However, the information is purely voluntary.

In order to continue to have an effective make allowance within the Federal Milk Marketing Order price formulas, I think that it would be beneficial to have authorization for USDA to conduct a mandatory price survey, as far as the manufacturing costs are concerned. The timing, and the robustness of that survey would be

things that could be determined by the industry, as to who should participate, if it should be the same participants that are already required to report under the Dairy Mandatory Price Reporting System, or if it should be something else, as well as the industry determining how often that make allowance study should be conducted, and how the results of that study should be implemented within the Federal Milk Marketing Order System.

So, I think this is a conversation that is applicable to the upcoming farm bill and is something that needs to incorporate a robust discussion with the industry as well. Thank you.

Mr. BALDERSON. Ms. Coale, thank you. That was a great response. I appreciate that. My next question is for Mr. Marlow. Thank you for being here also, sir. You discussed the changes your agency has made to the DMC Program earlier. Did you reach out to get feedback from small- and medium-sized producers when deciding what changes would be made to DMC, and what kind of outreach was conducted?

Mr. MARLOW. Thank you very much for the question. Yes, since the start of the Administration, dairy producers, and especially small- and mid-scale dairy producers, have been one of the areas we have focused our attention, in terms of the gaps within the programs that have needed increased assistance. Over that time, based on input that we have received from producers, we have made changes specifically because of the input of producers, and the input of those who work with small- and mid-scale producers. We continue to seek that input through our county and our state officers, and also through meetings with industry that we hold on a regular basis.

Mr. BALDERSON. Okay. Thank you very much. Mr. Chairman, I yield back my remaining time. Thank you very much, sir.

The CHAIRMAN. The gentleman from Arizona, Mr. O'Halleran, is now recognized for 5 minutes.

Mr. O'HALLERAN. I want to thank Chairman Scott and Ranking Member Thompson for organizing this important hearing. I also want to thank the witnesses for their participation today in preparation for the upcoming farm bill. Last year, Arizona's dairy industry created more than 44,000 jobs. Dairy is an essential part of Arizona's economy, and among the top commodities in Arizona's First Congressional District. Over 98 percent of Arizona dairies are family owned and operated, and these families depend on our work to stabilize prices and incentivize domestic production.

I know a little bit about dairy farming. It is in my family's background. My grandfather, my father, were dairy farmers, along with seven brothers of my father's, and some of those uncles took on the role of dairy farming even after my grandfather's farm was lost during the Great Depression. During the previous farm bill reauthorization I worked to strengthen the dairy farm safety net. This included creating the Dairy Margin Coverage Program, which serves as an important risk management tool for producers in my district.

Mr. Marlow, you have significant expertise in risk management. In your view, how successful has the DMC program in aiding farmers through the recent volatile years?

Mr. MARLOW. Congressman, thank you very much for the question. I think it is important for us to look at the safety net as a system between both DMC and also the Risk Management Agency programs that also work with it to provide a more comprehensive coverage. I would highlight that in 2021, the DMC Program put out \$1.1 billion in payments to dairy farmers across the country, having a very significant impact on farm viability across the country. I am very proud of the changes that we have made in DMC over the last couple of years. I think it is a much more robust safety net, along with our programs from our partners over at RMA, but I also would be remiss if I didn't note that between 2013 and 2021 we lost approximately 17,000 dairy farms in the United States.

That is a loss, and over time I have spent time sitting at the kitchen tables of families going through that process, I know that that is a continued weight on the land, a weight in our communities, but we are very proud of the safety net that we have created, and the safety net that we have built through the changes that we have made over the last couple of years.

Mr. O'HALLERAN. And a follow up on that, what are the most important updates we can make to the DMC Program, or other programs, to make sure the dairy safety net is as strong as it needs to be, to make sure that we don't lose 17,000 farms, like you had just mentioned?

Mr. MARLOW. Thank you very much, Congressman. I would say that the opportunity was provided through Supplemental DMC for farmers to update their coverage levels, and their production history has been a very important part of the process, and a very important part of it being an effective safety net over the last couple of years. We can look at how that becomes more of a part of the program over time. I would also say that, by focusing on the margin, and by focusing on the gap between the price and the cost, in this case feed cost, as we have talked about inflationary pressures and other issues, this is a very important model for assistance programs as we go forward, and should serve as an important touchpoint in the conversation going to the farm bill. And we look forward to providing technical assistance on any other proposals that come either through your offices, or through the remaining panels who are yet to speak today.

Mr. O'HALLERAN. Thank you very much, Mr. Marlow. Ms. Coale, despite the safety net provisions, the dairy industry was hit hard during the beginning of the COVID-19 pandemic. At one point Arizona dairy farmers were dumping hundreds of thousands of gallons of milk a day. Milk pricing became volatile, and farmers in Arizona have had to contend with economic ups and downs ever since. I am going to be sending you, due to time, some questions on that, but I find it that we have to continually adapt to these changing environments at a much faster pace so that there is reality placed in the system of the timeliness and the impacts to family farms. Thank you, and I yield back.

The CHAIRMAN. The gentleman from Iowa, Mr. Feenstra, is now recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Scott, and Ranking Member Thompson. Thank you for the testimony from both of you. The dairy industry is extremely vital to Iowa, in my Fourth District. I

mean, we are home to Agropur, Wells, Blue Bunny, Dean Foods, AMPI. They are all in my back yard, literally in my back yard, and I talk to my dairy producers virtually every week, so I am just thankful for you taking the time out to discuss these topics.

However, the number one topic that I am hearing from my producers is the fear moving forward, granted, we are at \$25 per hundredweight right now, but their input costs are just very significant. So from either one of you, I am just wondering, as we move forward—and I know we have the Dairy Margin Coverage and stuff like that, but a lot of the smaller producers are saying that they are going to go under if this changes, or if the commodity price changes at all, the costs of feeding and everything else going up, that they are setting up for a huge cliff. Can either of you talk about what we can do in the farm bill, or what we should be doing moving forward so we don't lose these producers?

Mr. MARLOW. Thank you, Congressman, this is an extremely important question at this point. We share the concern about the volatility of the price, and the pressures of inflation. Inflation and input costs has been a major concern within USDA, and a major cause of action, and it is taking essentially a two-prong approach. One is looking at what we can do to improve the situation in the short-term, and address some of the specific situations in terms of shipping, in terms of transportation, in terms of supply chain issues, and those types of things. We are also looking at longer-term structural issues, in terms of competition.

So, I would point at both the work that is being done on the investments, on increasing fertilizer production, and increasing and addressing fertilizer costs, but then also, longer-term, the very significant investment that the Administration is making in supply chain diversification, and the opportunities to access and increase processing. I would also suggest that, for the smaller-scale and mid-scale farmers that you are referring to, access to higher value markets is often a very critical component of their strategy for financial viability and as we invest in these supply chains, invest in higher value markets, and invest in bringing a greater portion of the food dollar back to the farm. One of the issues that our division is working on is to look at how we need to adjust our safety net programs to make sure that we are recognizing those markets that are so critically important to the scale of farmers that you are talking about and how, in our disaster programs, we are able to recognize those prices, recognize those markets, and make sure that that safety net extends into the higher value shorter chain operations that farmers of the scale that you are referring to need to be viable, and not just stay in, but thrive over time.

Mr. FEENSTRA. Yes. Right. I mean, I agree 100 percent. I mean, you have to find value added. They have to figure out a way to make sure that—and sustainability. I mean, long-term, this is always a challenge. The other thing that sort of goes along with this, when it comes to inputs, is the cost of finding workers, and, especially in the Midwest right now, we have such a shortage of workers, both from the production side, all right, from the producer, and then also from the side that is making the dairy products, whether—the ice cream, or cheese, or whatever—proteins, or whatever it might be.

Actually, yesterday we had a situation that one of the locations I noted was dumping milk. Well, we sure don't ever want that, and so I look at that, and I have 35 seconds here. Any direction there? I know we talked to the H-2A—H-1A program, but any direction that you look at and say, "Hey, this is something that we need to address"?

Mr. MARLOW. This is an issue that the Secretary has taken a personal interest. We have supported the Farm Workforce Modernization Act of 2021 (H.R. 1603), and we are happy to continue conversations about specific needs within specific industries, but, in my last 3 seconds, it is an issue that has very much taken the attention of the Department.

Mr. FEENSTRA. Yes. Thank you, and I yield back.

The CHAIRMAN. The gentlewoman from Washington, Ms. Schrier, is now recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman, and thank you to our witnesses. I thought I would first focus today on just keeping costs down for our producers. As everyone here knows, import costs are extremely high for farmers and agricultural producers right now. I first became aware of supply chain dysfunction made worse by the pandemic from hay growers in Ellensburg, Washington, in my district, and, of course, issues impacting the hay and feed supply are going to directly impact dairy producers, so right now I am seeing the storm brewing that will impact all feed for cattle. Part of that is weather, part of it is port congestion, and supply chain issues. Part is the high cost of inputs, like fertilizer, and then another is that right now the price of wheat is so high that there is more incentive to grow wheat, and less incentive to grow hay, and so this is all potentially contributing to skyrocketing prices for feed.

So, Mr. Marlow, first I want to thank you—especially on behalf of the producers in my district. Thank you for the change in the DMC feed cost formula to better reflect the cost of high-quality alfalfa hay. And I want to ask you a couple of things. One is, in light of this change, is there more that can be done to address or offset high feed costs, and kind of part two of that question is—I do have dairy producers in my district who have their cows at least part time just feed off the grass, just feed—and—on the range, and was wondering if—how you think about costs of feeding those cattle?

Mr. MARLOW. Thank you very much Congresswoman for the question. This is an extremely important issue. The inflation of costs for producers is something that we have been looking at and working on quite intensively. You mentioned several pieces. One is opening up movement through the ports to allow a greater flow of goods. We have recently created a program with the ports of Seattle and Oakland to basically provide an opportunity for containers to be filled with agricultural commodities, and to increase that flow of goods. We have also had increased funding for the expansion of fertilizer production in the United States.

And there are a series of steps that we are taking to address the specific issues that you named. One is the extent to which we have been able to open up some of the CRP land for supplemental grazing and supplemental haying based on the extensive droughts across the country. For land that is being taken out of CRP at the end of the season, we have opened up the ability for farmers to get

out of CRP early in order to prepare land for fall production if that land was coming out of CRP anyway.

These issues of inflation, and we have had a whole series of issues, the extensive disasters, the war in the Ukraine, coming out of the pandemic, these issues are going to require a comprehensive approach in terms of addressing each of the different pieces. We are really looking at that comprehensive approach in terms of increasing the ability for the financing of infrastructure, the development of supply chain diversification, and a series of other steps to be taken.

Ms. SCHRIER. Thank you for the answer. We may have to have a further discussion about undoing conservation programs for this, but that can be another day. I just want to close by mentioning that there is a big problem, as Mr. Feenstra just said, with labor issues for our dairy producers. In Washington State, folks point to immigration policy as one of the primary barriers here, and so I just want to mention the need to make progress here with the passage of the Farm Workforce Modernization Act of 2021 that passed in a bipartisan manner in the House, but we need to get through the Senate. It would allow for more worker visas, which would help the dairy producers in my district, and across this country. Thank you, I yield back.

The CHAIRMAN. The gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. All right. Well, thank you, Mr. Chairman. I will jump right into it. So, Ms. Coale—am I saying that right?

Ms. COALE. You are.

Mrs. CAMMACK. All right, wonderful. I always have to ask, because people always get my name wrong. But, Ms. Coale, as you know, my dairy farmers in the great State of Florida were especially hard hit by the price inversions that occurred during the pandemic 2 years ago. Now, I appreciate that the Department has reimbursed farmers for some of the losses under the Pandemic Market Volatility Assistance Program, but I am continuing to work on rectifying that program's 5 million pound limitation.

I know that we see eye to eye on how important it is that we work towards real reforms for the dairy sector that avoid a repeat of what happened amid the pandemic, and that we consider the impact of such reforms, and what they can do on dairy farmers of all sizes, including our family dairy farms in my state, where the average dairy has more than 1,300 cows, and keep in mind these are all family operations. These are not massive corporate entities, but they are family operations. So can you give me your assessment on some of these pricing dynamics, and how they impacted producers in different areas?

Ms. COALE. Thank you, Congresswoman. I have been on many of your family-owned dairy farms in Florida, and I completely understand how they are operating, and the unique marketing conditions that they face in the State of Florida that are different than from other areas across the country. And what we did see through the pandemic was that there was a real increase in price volatility, and typically we see cheese prices that are lower than what the price for fluid milk is, or Class I milk, as we refer to it, but during the pandemic there were some market abnormalities that occurred,

and cheese was suddenly valued much higher than Class I milk. And that continued for a period of time, and the Department recognized that this was creating great hardship for the dairy sector and dairy producers, so the Pandemic Market Volatility Assistance Program was developed and implemented.

And I recognize that the program had different effects across the country, and there were different payouts across the country. That was a result of several things, including the 5 million pound cap, which obviously impacted every producer in the State of Florida, and it may not have impacted all other producers in different regions. When we are looking at how the Pandemic Market Volatility Assistance Program paid out, what it looked at was the difference between the prior Class I mover and the current Class I mover. It looked at the volumes of milk that were pooled. It looked at how the cooperative or the processor was paying the individual dairy producers, and took all of this collective information to determine how to pay out the monies. And I recognize that we were limited in the resources that we had available to us, and therefore we looked across to determine how other support programs were administered that USDA had been given authority to, and that is how the 5 million pound cap came into existence.

So it is a program that we would look at. If Congress were able to provide additional resources for that, we could explore what other opportunities might be to help the dairy producers in your region, as well as across the country.

Mrs. CAMMACK. I appreciate your insight there, and I would like to insert into the record an article from the *Tampa Bay Times* from one of my dairy farmers, Ms. Brittany Nickerson-Thurlow.

The CHAIRMAN. Without objection.

[The article referred to is located on p. 1191.]

Mrs. CAMMACK. Thank you, Mr. Chairman. Now, as you know, and you talk about this, my state, Florida, our dairy farmers have been working for generations, but, as we know, their livelihood and their survival are threatened. Now, I want to reiterate something that has already been spoken about in this hearing here today, which is that 95 percent of the U.S. dairies, even those larger dairies like those in my State of Florida, with more than 1,300 cows, are family owned and operated. We keep reiterating this. Now, these farms are part of the fabric of my state—we like to call ourselves the Dairy Belt—and they are vital to our economy and our food security. And, yes, these farms have grown in size, but they are still family farms, and they grow in size because they have to meet margins just to stay viable.

One of the dairy farms in my state recently spelled out a reality that I hope we can all remember as we move forward. In the 1960s, a dairy with 27 cows was enough to support one family and three kids. To be successful today, many of our dairy farmers, particularly those in my State of Florida, must operate on a larger scale, with hundreds, thousands, even, of cows in order to make a living and survive this challenging time. With any of the programs moving forward, I think that the Pandemic Market Volatility Assistance Program being one of them, we need to take into the—reality this—the account. Many farms are not that small. They have many operations, and I look forward to working with my colleagues here

on the Committee, but also with USDA to ensure that our family-owned dairy farms are able to be provided equitable relief and support, regardless of the size of their operation. And with that, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman from California, Mr. Harder, is now recognized for 5 minutes.

Mr. HARDER. Thank you, Chairman Scott, and thank you also to our witnesses for joining us today. California's dairy producers are key to the ag economy of the Central Valley. In both Stanislaus and San Joaquin Counties, milk is the second top commodity, valuing over \$700 million and over \$400 million respectively. But despite the staggering economic contributions that we have seen from dairy, dairy has to face some real challengers, many of them exacerbated by the COVID pandemic. Just in my district we have seen hundreds of dairies close in recent years, and I know we are working to try to address that in the 2023 Farm Bill.

I know that USDA and this Committee have partnered to roll out programs that assist dairy farmers to combat price fluctuations, unforeseen natural disasters, but I hear from many of our dairy producers that those programs don't quite meet the scope of our California dairies. And, of course, top of mind is the Dairy Margin Coverage Program, which I know came from the 2018 Farm Bill. It has been helpful to some dairy farmers, but most of our producers find that the 5 million pound cap either gives them minimal support, or deters them from the program entirely. And, given the vast amount of dairy production in the State of California, you would think that we would have a pretty high level of participation within DMC, but that is, of course, not the case. California has much lower participation than other states.

Mr. Marlow, given your role managing the safety net programs like DMC, can you discuss any regional differences you have seen in DMC participation, in particular why California participation is so much lower compared to other states?

Mr. MARLOW. Thank you very much, Congressman. Thank you for the question. I do think, as we look at our safety net programs, that a one-size-fits-all approach does not fit. The scale of production definitely has an impact on participation, but in answering your question, I really want to look at our dairy safety net programs more comprehensively, including our Risk Management Agency programs.

It is true that DMC has the 5 million pound cap. Coverage up to that cap is available to all dairy farmers, regardless of scale. They can also obtain the same coverage above that cap, just at a higher price. We also look at the RMA crop insurance policies based on dairy as part of that safety net, especially for some of our larger operations as they move past that 5 million pound point. So I think we have to look at it in a comprehensive way, and look at all of those programs together as providing a safety net, whereas the 5 million pound cap really focuses in on providing a basic safety net across all scales, rather than just a subset. As you said, it may not cover the full range for a large scale producer.

Mr. HARDER. Yes, I hear what you are saying. I also think the DMC Program is incredibly important for dairy producers, and I am curious if you have any suggestions around what can be done

to include California producers who may be on the fence about participating in DMC.

Mr. MARLOW. Well, I think it is important to recognize that the margin factor of the DMC is one of the major factors that makes it effective for dairy producers, that it is focused on the margin. We also have an RMA program that is also focused on margin for dairy producers as well. We are happy to engage in a conversation on how it can be extended more effectively to producers across the scale. I am happy to engage in technical assistance as we look at additional proposals.

Mr. HARDER. Thank you. I appreciate your comments, and I do think it is important to make sure that, as we look at the 2023 Farm Bill process, that we are making sure that our California dairy farmers are well represented. I look across this Committee, I see a lot of folks that represent California dairies, more so than in the 2018 Farm Bill process, and I think that should be a chief goal of this Committee as we go forward. So, I look forward to working with the Committee, and our Chairman, and Ranking Member, and our stakeholders to hopefully get this right. So thank you guys so much for coming, and, Mr. Chairman, I yield back the remainder of my time.

The CHAIRMAN. The gentlewoman from New Hampshire, Ms. Kuster, is now recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman, and I want to thank our panel for being with us today. Dairy is an important pillar of New Hampshire's diverse agricultural economy, so I am glad we are having this discussion as we look ahead to the 2023 Farm Bill. In the last farm bill, 2018, we successfully retooled what is now known as the Dairy Margin Coverage Program that we are discussing today. The narrow margins between high feed costs and low milk prices strain dairy farms across the country, and that was especially true for small family farms in New England, and in my district in New Hampshire, where transportation costs trend much higher. Farmers have been burned so badly by the previous iteration of margin coverage that not one dairy farmer I talked to in my district thought they would re-enroll.

Thankfully, the DMC Program won over many converts, and has made a tangible difference in ensuring that farmers can access reliable margin coverage, and choose between options that best fit their needs. And it was a tremendous testament to the type of work we can get done when we write the farm bill in a bipartisan way. Nevertheless, New England dairies continue to face significant challenges to their long-term viability, and we are still losing small dairy farms in New Hampshire who have a tough time remaining viable as the industry consolidates nationwide.

Consolidation runs the clear risk of making our dairy supply chains less flexible, especially in moments that call for maximum agility. We saw this discrepancy play out in the early days of COVID, when farmers were forced to dump milk, even though families were going hungry. The supply chain dots just weren't being connected. I believe there is much more we can do in the next farm bill to shore up family dairy operations, so with that, let us dive into the Milk Marketing Orders. In 2020, we saw the Federal dairy pricing thrown off as a result of the increased demand for cheese

in the Farmers to Families Food Box Program, which then negatively impacted the fluid milk price. Deputy Administrator Coale, given this type of uncertainty, I am curious if USDA is making any moves regarding Federal Milk Marketing Orders, and if you had been in touch and heard from small dairy producers about how best to ensure fairness for setting dairy prices.

Ms. COALE. Thank you, Congresswoman. I appreciate the question about what we are doing within the Federal Order System, and right now USDA's primary role is to have conversations with our stakeholders, and those conversations include both large and, in particular, small dairy producers to find out and educate them as to what the Federal Order System provides, and how it enables them to have a market for their milk production. The Federal Order System is one that is designed to establish minimum prices, and, in essence, this assures a dairy producer as to what the value is of the milk that they are marketing, based on how it is used. So it is vital that we have those conversations, and continue to educate the industry as a whole as to what it is that we offer within the system.

We have had multiple, and I personally have had multiple conversations with producers from the northeastern part of the United States just discussing the unique marketing challenges that they face, and how best they can position themselves. One of the programs that USDA does have that has been providing a benefit, and adding a value to dairy producers and operations, is through the Dairy Business Innovation Initiatives. And these are opportunities for dairy producers to receive technical assistance and also to get some grants and some awards if they want to put in any kind of value-added production, or improve their efficiencies, whether it be for climate change, or just general marketing practices, *et cetera*. So, the DBIs are one very effective model that we have been using within AMS to assist all dairy producers, but with real focus on small- to medium-sized producers. Thank you.

Ms. KUSTER. Great. That is good to hear. I just want to quickly go back to the margin coverage. Do you see opportunities for better incorporating regional feed cost calculations into the program formulas?

Mr. MARLOW. We would be happy to engage in technical assistance with you on any proposed changes made to regional feed costs. We are happy to look at those issues as we move into the farm bill conversation.

Ms. KUSTER. Great.

The CHAIRMAN. The gentlelady's time—

Ms. KUSTER. Thank you very much. With that I yield back.

The CHAIRMAN. Yes, ma'am, thank you. And now the gentleman from Texas, Mr. Cloud, is recognized for 5 minutes.

Mr. CLOUD. Thank you very much, Mr. Chairman, and thank you all for being here to help us as we prep for the farm bill. Mr. Marlow, I wanted to ask you about the Dairy Margin Coverage Program. I talked to some dairy producers back in Texas, and Texas maybe tends to have some of the larger producers. Could you give me a rough estimate of how many farms are enrolled in Tier One, as opposed to Tier Two?

Mr. MARLOW. Approximately 60 percent of the farmers who enroll in DMC are in Tier One only, so about 40 percent are in Tier One and Tier Two.

Mr. CLOUD. Forty percent are in both? Or are in Tier Two?

Mr. MARLOW. Well—were you—you can—

Mr. CLOUD. Sixty percent are in Tier One?

Mr. MARLOW. You can enroll in Tier One for the first 5 million pounds, and then Tier Two for the additional. So about 40 percent of the producers who are in the program go beyond that 5 million pound limit.

Mr. CLOUD. Right. I have talked to some in Texas, and, even though they produce that much, some say they can hit that 5 million mark in a matter of a couple weeks, but they don't enroll in Tier Two just because of the cost discrepancy. Can you speak to how that 5 million benchmark came into place, and whether that is a good figure or not?

Mr. MARLOW. I believe that that was in the original legislation that was provided to us, and so we work with that \$5 million—I am sorry, 5—

Mr. CLOUD. Five million pound.

Mr. MARLOW.—million pound number.

Mr. CLOUD. Right.

Mr. MARLOW. We are happy to engage in a conversation about where that lands. It is approximately a 250 cow dairy for the 5 million pound mark. That is really an approximate point.

Mr. CLOUD. Okay. I guess is it your estimation that that is a good amount? Would you recommend more? I mean, it—the ones I am talking to are saying it would be great if it was raised, but—

Mr. MARLOW. I think it is important to look at the combination of DMC with the Risk Management Agency programs as a combined safety net so it is not just DMC standing on its own, and those Risk Management Agency programs are also available to the larger scale operations. So they have the choice of either doing Tier Two, or going into the RMA programs, and looking at it there.

Mr. CLOUD. Okay. I wanted to ask you another question too, because probably the biggest thing I have heard from farmers over the last year has been just the ability to work with their local FSA field agents, and so I was curious if you can give us an update on the teleworking status? Are field agents back to work, what percentage, what is our status on that?

Mr. MARLOW. We continue to monitor COVID issues very closely. All of our staffing levels are based on the science of what the COVID levels are in their areas. We are across the board—and I don't have the number of specific offices, but almost across the board back to 100 percent staffing.

Mr. CLOUD. Yes. For practical purposes, we are almost full—okay.

Mr. MARLOW. Absolutely.

Mr. CLOUD. That really helps. I appreciate it. Thank you very much. That helps me. I appreciate it. Thank you, Mr. Chairman.

The CHAIRMAN. Well, thank you, Mr. Cloud. And, Ms. Coale, Mr. Marlow, thank you. This concludes this part of our hearing today. Panel one, you all did a great job, thank you. And now, Panel one,

you will be excused. We will take a 5 minute break to exchange panels, and then our second panel will appear in 5 minutes. And so, for 5 minutes, we will stand in recess. Thank you.

[Recess.]

The CHAIRMAN. The Committee will come to order. First I want to welcome our second panelists, and to introduce our first witness on our second panel today, I am pleased to yield to the distinguished gentleman from Pennsylvania, my friend, the Ranking Member, Mr. Thompson.

Mr. THOMPSON. Thank you very much, Mr. Chairman. It is my pleasure to introduce fellow Pennsylvanian, Ms. Lolly Leshner. Lolly, her husband William, and three of their children operate Way-Har Farms in southeastern Pennsylvania. The Leshners are seventh generation dairy producers, and have expanded their operation to sell milk and ice cream direct to consumers. She has been very active in the industry in numerous roles over her career, and is a current member of the DFA Resolutions Committee. Lolly, thank you so much for joining us today.

The CHAIRMAN. And I thank the Ranking Member for his comments. To introduce our second witness, I am pleased to yield to the distinguished gentleman from California, the Chairman of the Livestock and Foreign Agriculture Subcommittee, Mr. Costa.

Mr. COSTA. Mr. Chairman?

The CHAIRMAN. Yes, you are recognized.

Mr. COSTA. Can you hear me?

The CHAIRMAN. Yes, I do. Go right ahead.

Mr. COSTA. Thank you very much, Mr. Chairman. I have the honor to introduce Mr. Mike Durkin, who has testified before, back by popular demand, I think. His experience and background I think is well known in the dairy industry across the country. He is the President and Chief Executive Officer of Leprino Foods, representing today the International Dairy Foods Association. Leprino Foods many of you are familiar with. They are the largest producer of mozzarella cheese in America, which makes them the largest in the world. They also export 20 percent of their products abroad, so he is very experienced in the challenges with the food supply chain that we have had in the last couple years as a result of the pandemic and other factors. But what they do is produce protein, lactose, and other dairy ingredients that are critical to our food supply chain, and I might also say baby food formula that they sell to processors.

Leprino Foods has three plants in California, notably in the San Joaquin Valley, two in Lemoore, one in Tracy. It is the home of the largest cheese manufacturing facilities in the world. Mr. Durkin has a lot of experience in senior leadership roles. He holds a Bachelor Degree in Marketing and Finance from the University of Rhode Island, and a Master in Business and Finance from Pace University. We look forward to hearing from him again today, and I thank you for giving me the honor to introduce him.

The CHAIRMAN. And our third witness is Mr. Travis Forgues, who is the Executive Vice President of Membership for Organic Valley from LaFarge, Wisconsin. And our fourth and final witness today is Dr. Marin Bozic, an Assistant Professor of Applied Eco-

nomics at the University of Minnesota from St. Paul, Minnesota. And now, Ms. Leshner, please begin when you are ready.

STATEMENT OF LAURA “LOLLY” LESHER, OWNER/OPERATOR, WAY-HAR FARMS, BERNVILLE, PA; ON BEHALF OF NATIONAL MILK PRODUCERS FEDERATION, DAIRY FARMERS OF AMERICA

Ms. LESHER. Thank you. Good morning. Chairman Scott, Ranking Member Thompson, thank you so much for the opportunity to testify. My name is Lolly Leshner. My husband William and I own and operate Way-Har Farms in southeast Pennsylvania. Our family has milked cows for seven generations, and in the past 50 years we added a retail farm market so that we could sell our milk and ice cream directly to consumers. We milk 240 cows and are joined in the family business with three of our four children. I am proud to be a member-owner of Dairy Farmers of America, and I am testifying to you today on behalf of National Milk Producers Federation, of which DFA is a member.

I am pleased to offer comments on the current dairy policy, but first a few words about the economic landscape. Growth in domestic consumption and exports have been very bright spots for us. Milk prices have reached an all-time high level earlier this year, but the increasingly high input costs are pinching our farmer margins. Just this year our family dairy farm has seen the cost of diesel fuel increase by 290 percent compared to 2019. This is a problem that is only getting worse.

Prior to the 2018 Farm Bill, the dairy policy did not work as well as it does today. The previous Margin Protection Program was well intended, but did not provide an effective safety net, and dairy farmers did not have access to other risk management tools. So, the dairy farmers are very grateful for your work to reform dairy policy in the 2018 Farm Bill and the Bipartisan Budget Act of 2018 (Pub. L. 115–123). Being from Pennsylvania, I am particularly grateful to you, Ranking Member Thompson, for your advocacy. The Dairy Margin Coverage Program is much more effective and has worked well for farmers during these very difficult times.

DMC worked well, as intended, last year, paid out over \$1.1 billion to farmers nationwide, including nearly \$89 million to Pennsylvania producers. Our farm has consistently purchased the maximum available coverage, knowing that DMC may not pay out, but has served as a very much intended safety net when needed, and I was very happy to learn 71 percent of farmers have signed up. However, there is always room for tweaking. DMC’s production history calculation is outdated, and barely relevant. It is critical that, moving forward, farmers can update this calculation to reflect current productions.

The current standard of 2013 was a long time ago, and many farms have grown to meet market demands, or to allow children to join the family farm, just like my family farm did in 2015. To that end, we thank this Committee for enacting the Supplemental DMC to compensate farmers for modest production increases since 2014, and it is critical that this adjustment be carried forward in the 2023 Farm Bill. We also want to thank the Committee and USDA for ensuring DMC better reflects farmer feed costs by fully incor-

porating the dairy quality alfalfa into the feed formula. And, finally, we are grateful that other—like other producers, dairy farmers can now have access to other risk management tools, like Dairy-RP and LGM-Dairy.

Just over a year after the current farm bill was signed, the COVID pandemic took a hold, and the entire country was impacted in hugely—ways. Dairy farmers never stopped producing our nutritious food, but we were not immune to the economic upheaval. The change made to the Class I mover in the last farm bill, combined with the government’s heavy cheese purchase, cost dairy farmers over \$750 million in Class I skim milk revenue in the last 6 months of 2020 alone. The Northeast Order, which includes much of Pennsylvania, lost over \$141 million, which is the largest share of any one particular Order. The pandemic was, of course, a shock for all of us, but it highlighted the need to improve the Federal Milk Marketing Order system.

Fortunately, the dairy industry, through National Milk, is working hard to reach an industry-wide consensus on fixes that we can take to USDA for consideration via a national Order hearing. National Milk farmer-led Economic Policy Committee is examining multiple issues, including the asymmetric risk inherent in the Class I mover, and other areas. DFA is a member of the National Milk, and is actively participating in this process. We recognize that, for our efforts to succeed, we must all work together, giving a little bit to get a little bit. This is way too important for our future, and we look forward to working with the Committee and the broader industry to help these efforts advance.

My written testimony touches on key issues outside of the dairy title. In particular, we urge continued support of the Dairy Donation Program, which helps provide needed dairy products to food-insecure families, and we also support the Healthy Fluid Milk Initiative projects, intended to increase consumption of milk and dairy foods. Again, I want to thank you for this opportunity to testify, and I will be happy to answer any and all questions.

[The prepared statement of Ms. Leshar follows:]

PREPARED STATEMENT OF LAURA “LOLLY” LESHAR, OWNER/OPERATOR, WAY-HAR FARMS, BERNVILLE, PA; ON BEHALF OF NATIONAL MILK PRODUCERS FEDERATION, DAIRY FARMERS OF AMERICA

Chairman Scott, Ranking Member Thompson, Members of the Committee, thank you for the opportunity to testify before you today as the Committee reviews current dairy policy in advance of the upcoming farm bill.

My name is Lolly Leshar. My husband William and I own and operate Way-Har Farms located in southeastern Pennsylvania. Our family has milked cows for seven generations and in the past 50 years added a retail farm market to sell our milk and ice cream directly to consumers. Way-Har Farms consists of 240 milking cows and 400 acres of corn, hay, triticale, and rye. Our farm market operation has a retail store and a wholesale business with distribution to over 70 different outlets. William and I are joined in the family business by three of our four children. We also volunteer in our local community by serving on our local food bank, county Holstein group, the dairy promotion committee, and the Pennsylvania Center for Dairy Excellence Foundation. I also serve on our local school board.

I am proud to be a member-owner of Dairy Farmers of America (DFA) and to serve on the Cooperative’s Policy Resolutions Committee. DFA is the nation’s leading diversified milk marketing cooperative, owned and governed by 11,500 dairy farmer members across the country. DFA’s family farmers are invested in 83 processing facilities that produce a wide range of dairy products, including fluid milk, cheese, butter, ice cream, and dairy ingredients.

I am testifying before you today on behalf of the National Milk Producers Federation (NMPF), of which DFA is a member cooperative. NMPF develops and carries out policies that advance the well-being of dairy producers like me and the cooperatives we own. NMPF's member cooperatives market the majority of the U.S. milk supply, making NMPF the voice of tens of thousands of dairy producers on national issues.

I am pleased to offer comments on current dairy policy as you prepare to craft the next farm bill. First, a word about the current dairy economic landscape. Overall, robust growth in both domestic consumption and cheese exports have been bright spots for the dairy sector. During the first quarter of this year, milk production nationwide was one percent lower than during the same time period last year. In this context, milk prices reached their highest-ever monthly level earlier this year, as measured by the U.S. average all-milk price. However, record or near-record high input costs, including fertilizers, are pinching dairy farmer margins, with many dairy farmers now facing diesel fuel shortages partly on account of Russia's invasion of Ukraine.

When this Committee last began its work heading into the 2018 Farm Bill, dairy policy looked much different than it does today. The previous Margin Protection Program (MPP), while well-intended, fell short of providing the protection required of an effective farm safety net. MPP allowed farmers to insure against low margins—the gap between milk prices and feed costs—but did not offer affordable or meaningful coverage that accounted for the challenges producers endured. As a result, dairy farmers largely opted out of the program or only obtained the free catastrophic coverage. Further, unlike our counterparts who grow crops, dairy farmers did not have access to the risk management options that can help farmers meet their customized needs.

Dairy farmers are grateful for the work this Committee did to reform the dairy safety net in both the 2018 Farm Bill and the Bipartisan Budget Act of 2018. As a Pennsylvania producer, I am particularly grateful to you, Ranking Member Thompson, for your years of advocacy on behalf of dairy farmers in the Commonwealth and beyond. The Dairy Margin Coverage (DMC) program is a significant improvement over its predecessor and has been a strong safety net for dairy farmers during difficult times. It offers producers affordable coverage for margin levels that reflect the milk price and feed cost challenges they face. DMC worked as intended in 2021, paying out well over \$1.1 billion to participating farmers nationwide, including nearly \$89 million to Pennsylvania producers, as they continued to weather the COVID-19 pandemic. The program has provided important security to my family's farm, given the volatility that persists in dairy markets. We have consistently purchased the maximum available DMC coverage since 2019, at a margin of \$9.50 per hundredweight, knowing that it may not pay out every year, but is intended to serve as a safety net when needed. I am glad that more than 71 percent of those dairy farmers who have DMC production history are enrolled in the program for 2022.

However, as valuable as the program has been, many farmers have not been able to fully benefit because DMC's underlying production history calculation is outdated. It is critical that farms like mine and my neighbors have an opportunity to update their production history to reflect current on-farm production. 2013 is far too long ago, and other farm safety net programs do not use such an outdated production reference. Many farms have grown to meet market demands or to allow their children to join the farm. To that end, we thank this Committee for enacting Supplemental Dairy Margin Coverage payments to compensate farmers for incremental production increases since 2014, accounting for a nearly decade-old production history formula. It is critical that this production history adjustment be carried over into the 2023 Farm Bill so that DMC remains a viable safety net. We also appreciate USDA's actions to ensure that DMC more accurately reflects dairy farmer feed costs by fully incorporating dairy quality alfalfa into the DMC feed formula. We know this change would not have been possible without this Committee's work to require the Department to report dairy-quality alfalfa prices in its monthly price surveys.

Finally, we are grateful that, on par with producers of other commodities, dairy farmers, large and small, now have access to both a Farm Service Agency-run safety net as well as Risk Management Agency tools, such as Dairy Revenue Protection (Dairy-RP) and Livestock Gross Margin-Dairy (LGM-Dairy), which give all farmers the ability to adapt their risk management to their needs. We are pleased that USDA recently approved several improvements to LGM-Dairy, including simplifying the purchase process to align it more closely with Dairy-RP and making the program available in all counties in every state. We also support further improvements, including permitting concurrent use of Dairy-RP and LGM-Dairy in the same month

and allowing producers who already have revenue coverage through Dairy-RP to obtain LGM-Dairy coverage with premiums and indemnities solely driven by changes in feed input costs. We hope these adjustments can be made to further strengthen dairy farmer risk management options.

Just over a year after the current farm bill was signed, the COVID-19 pandemic took hold and, from the start, impacted our entire country in significant ways. While dairy farmers never stopped providing households with an abundant supply of nutritious milk and dairy products, we were not immune to the massive economic consequences of the pandemic. In particular, the combined effects of the change made to the Class I mover in the last farm bill and the government's heavy cheese purchases cost dairy farmers over \$750 million in Class I skim milk revenue during the last 6 months of 2020. No one could have anticipated COVID-19 when the change was made to the mover, but the events of the last 2 years have shined a spotlight on the need for an overall update to the Federal Milk Marketing Order (FMMO) system.

To recap, prior to the 2018 Farm Bill, the Class I mover was based on the higher of the Class III or Class IV price each month, commonly called the "higher of" formula. In an effort to accommodate a request for improved price risk management for processors, while also maintaining revenue neutrality for farmers, a compromise was reached to restructure the mover as the monthly average of the Class III and Class IV prices, with a \$0.74/cwt. adjustment factor added to that average. The historical record from January 2000 through August 2017 indicated that this new mover would be revenue neutral for dairy farmers by maintaining essentially the same Class I skim milk revenue as the old mover. The new mover was enacted into law on the basis that farm-level revenue would be maintained.

The new Class I mover took effect in May 2019, but the COVID-19 pandemic dramatically undercut the revenue neutrality that formed its foundation. The Farmers to Families Food Box Program heavily weighted its dairy product purchases toward cheese, priced under Class III. This imbalance caused a wide chasm between the monthly Class III and Class IV prices, making the average of the two significantly lower than the "higher of" the two, even with the \$0.74/cwt. adjustment factor added. As a result, Class I skim milk prices averaged \$3.56/cwt. lower during the second half of 2020 than they would have under the previous mover. This undermined the orderly marketing of milk and represented a net loss to dairy producers of more than \$750 million during the latter half of 2020, including over \$141 million in the Northeast Order, which includes much of Pennsylvania. Dairy farmers are grateful to USDA for creating the Pandemic Market Volatility Assistance Program to partially reimburse farmers for these losses. We urge Congress to provide additional funding to close the gap for those producers who were adversely impacted by the program's 5 million pound per producer limitation. Farmers incurred these losses on all their milk volume, so we thank the Members of this Committee who are working to secure this equitable support.

However, work must also be done to avoid a repeat of this scenario in the future. Fundamentally, the current Class I mover saddles dairy farmers with asymmetric risk because it includes an upper limit on how much more Class I skim revenue it can generate for producers than the previous mover, but no lower limit on how much less can be generated than the previous mover. On this point, even 2 years later, the current mover has not made up for the 2020 losses because it is only moderately different from the previous mover and has not performed significantly better at any point. In other words, when the asymmetric risk inherent in the current mover causes non-trivial losses, as it did in 2020, those losses become effectively permanent.

Fortunately, the dairy industry through the National Milk Producers Federation is treating this matter with urgency and is seeking to find consensus on not only the Class I mover, but also a range of improvements to the FMMO system that we can take to USDA for consideration via a national Order hearing. DFA is a member of NMPF and is actively participating in its process, which involves careful examination of key issues to the dairy sector nationwide. NMPF's producer-led Economic Policy Committee has been meeting to discuss several FMMO updates, and we are grateful to Congress and USDA for their support during this process. The dairy industry recognizes that to successfully enact policies that are better than those we have in place today, we must work together with the goal of achieving consensus. We look forward to working with the broader dairy industry and Members of this Committee as our efforts advance.

I would like to highlight several other areas of great significance to dairy. First, dairy producers are long-time environmental stewards who tend with great care to our land, water, and other natural resources. As a testament to dairy's endeavors, research shows that producing a gallon of milk in 2017 required 30% less water,

21% less land, had a 19% smaller carbon footprint, and produced 20% less manure than it did in 2007. However, we always believe that more can be done, and, as a result, have set industry-wide goals of becoming greenhouse gas neutral or better, improving water quality, and optimizing water use by 2050. Conservation programs like the Environmental Quality Incentives Program are key as we work to continue our ongoing sustainability efforts. Enhanced funding will help dairy farmers scale up innovative climate smart practices, such as new approaches to both feed and manure management, especially as these popular programs are currently oversubscribed.

Second, trade is critical to our success as farmers. Today, exports account for 17% of our production and are likely to comprise an even greater share as global dairy demand continues to grow. Trade promotion programs like the Market Access Program and the Foreign Market Development program promote American-made dairy and agriculture products that compete with heavily subsidized foreign products, returning well over \$20 in export revenue for every \$1 dollar invested in the programs. We support doubling funding for both essential programs to better promote U.S. dairy products worldwide. In addition, we hope to work with this Committee to combat the European Union's efforts to restrict the use of common food names in markets around the world. These efforts are a trade barrier plain and simple, and they must be stopped.

Third, dairy farmers appreciate the enduring connection between agriculture and nutrition. Dairy is a nutrition powerhouse, serving as an excellent source of 13 essential nutrients, but continues to be under consumed according to the most recent Dietary Guidelines for Americans. I thank you, Ranking Member Thompson, for authoring the bipartisan Whole Milk for Healthy Kids Act to allow schools to offer students all varieties of milk, including whole milk, and I also thank you, Chairman Scott, and others on this Committee for supporting this effort. In addition, nutrition programs like the Supplemental Nutrition Assistance Program are vital to linking the food we produce as farmers to families across the country facing difficult circumstances. Finally, we strongly encourage robust support for the Dairy Donation Program to provide nutritious dairy products to food-insecure families and minimize food waste. We also look forward to working with this Committee on any additional enhancements that will help the program meet its goals.

Fourth, in recent years, farmers have endured one difficult year after another. Stress in rural America continues to be a major problem that grips many of our communities. I am thankful to this Committee for working in the previous farm bill to reauthorize the Farm and Ranch Stress Assistance Network, which aims to connect those working in agriculture to stress assistance and behavioral and mental health support programs. We thank the Members of the Appropriations Committee for providing the needed funding and hope those efforts can be increased in the future.

I will close with two issues that are outside of this Committee's jurisdiction, but critically important to dairy producers. First, dairy farmers across the country are facing acute shortages of workers even as they work to provide sustainable nutrition for all Americans at a time of rising food costs. However, unlike the rest of agriculture, the dairy industry is unable to use the H-2A seasonal agricultural worker visa program because of the year-round nature of dairy production. We strongly urge Congress to enact long-needed legislation to allow dairy to meaningfully access H-2A, and to provide current agricultural workers and their families with permanent legal status. The House passed the bipartisan Farm Workforce Modernization Act last spring to achieve these goals, and we continue to urge the Senate to produce an improved version of this bill that can earn 60 votes and be signed into law. Separately, while this Committee does not oversee the Food and Drug Administration, it is critical that the agency finally enforce dairy standards of identity to combat the proliferation of imitation products attempting to use dairy's positive reputation in the marketplace when these products are not nutritionally equivalent to real dairy.

Thank you again for the opportunity to testify before you. I am happy to answer any questions you may have, and I invite any of you traveling through Pennsylvania to stop by Way-Har Farms or visit our market for homemade ice cream.

The CHAIRMAN. Thank you. And now, Mr. Durkin, please begin when you are ready.

Mr. DURKIN. Is it on? Okay.

The CHAIRMAN. Yes. Go right ahead.

STATEMENT OF MIKE DURKIN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, LEPRINO FOODS COMPANY, DENVER, CO; ON BEHALF OF INTERNATIONAL DAIRY FOODS ASSOCIATION

Mr. DURKIN. Good afternoon, Chairman Scott, Ranking Member Thompson, and Members of the House Committee on Agriculture. My name is Mike Durkin, and I am the President and CEO of Leprino Foods, and I am here to testify on behalf of the International Dairy Foods Association and our company. IDFA represents the dairy manufacturing and marketing industry and its members, including independent processors, farmer-owned cooperatives, retailers, and marketers. Leprino Foods, a family-owned privately held company, is headquartered in Denver, Colorado, with over 4,500 employees in California, Colorado, New Mexico, Michigan, Pennsylvania, and New York. Leprino is the largest independent buyer of milk in the United States, supporting over 1,000 dairy farms, and we are also the world's largest producer of mozzarella cheese, and a leading supplier of dairy nutrition products, including lactose and whey.

As the Committee begins to discuss how the next farm bill can bring help to the U.S. dairy industry, I would like to put forward three policy recommendations and raise awareness of a concern for the Committee's consideration. These recommendations were developed by IDFA's Economic Policy Committee. The Association's Boards of Directors, which include proprietary processors and dairy cooperative leaders, voted unanimously to support these recommendations.

First—we also ask the Committee to reauthorize and expand the Healthy Fluid Milk Incentives Projects Program. This program requires USDA to test different methodologies to encourage SNAP participants to purchase more dairy products. Under the program, when a SNAP beneficiary uses their benefits to purchase qualifying fluid milk, they also receive a dollar-for-dollar coupon that can be used to purchase more fluid milk, or another qualifying dairy product. Pilots were launched last year at grocery stores in Texas, and more pilots are coming online this month in New Jersey. In addition, the USDA is expected to award funding by October that will allow approximately 250 new pilots across many regions. In the next farm bill we hope Congress will agree to expand this program to include yogurt and cheese, as well as additional fluid milk options. Expanding the program would help more SNAP families achieve positive health outcomes by increasing their dairy consumption.

Second, IDFA supports a permanent authorization of the Dairy Forward Pricing Program. This program allows producers to enter into forward-priced contracts with milk buyers for milk used to manufacture Class II, III, and IV products. This program expires on September 30, 2023, which means that no forward priced contracts may be entered into after that date. Making this program permanent could facilitate greater utilization of the risk management tool because it would mitigate concerns due to the program's pending expiration date. Given this program has nearly universal support among producers and processors, we recommend Congress make this risk management tool permanent.

Third, and most important to Leprino, and all processors, we ask that Congress require USDA to conduct regular cost of processing studies to generate industry data to develop proposals to adjust make allowances. The Federal Milk Marketing Order System sets the minimum milk price regulated processors must pay. Since 2000 the system directly transfers the market value of products to dairy producers, while processors retain only the assumed cost of manufacturing, or the make allowance. Current make allowances have not been adjusted in 15 years, and do not reflect the cost of manufacturing today's dairy products. Our industry is in this position in part because only two cost studies have been commissioned since 2000. Ironically, the most recent survey is also out of date because it excludes recent significant supply chain and inflation impacted data.

In addition, only $\frac{1}{3}$ of the eligible plants participated in the most recent survey, so the cost information collected may not reflect the true cost of producing dairy products. Congress can improve this *ad hoc* system by directing USDA to conduct regular cost of processing studies to enable regular make allowance updates. In addition, Congress should require that plants reporting pricing data to USDA participate in these cost surveys. This will ensure the resulting data reflects plants of different sizes and regions.

Related to this last request, I would like to discuss an increasingly urgent issue shared by the dairy producers and their processor partners, and that is the regulated pricing formulas. Current make allowances based on 2007 costs are woefully out of date. Coupled with ongoing inflationary pressures, the need to address this lag is increasingly urgent. While our proposal for USDA to conduct regular cost surveys will help in the longer-term, excuse me, the steps must be taken now to ensure adequate processing for capacity remains. Updates to the system will help ensure nutritious dairy products remain affordable to American consumers and exports beyond.

While processors and dairy cooperatives are working together, Secretary Vilsack has stated that USDA will not convene a Federal Milk Marketing Order unless the industry reaches consensus on a proposed solution. Proper resolution via a hearing remains urgent for our dairy industry, so your support of this process will be greatly appreciated. Thank you for the opportunity to appear before you today. I am happy to answer any questions you may have.

[The prepared statement of Mr. Durkin follows:]

PREPARED STATEMENT OF MIKE DURKIN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, LEPRINO FOODS COMPANY, DENVER, CO; ON BEHALF OF INTERNATIONAL DAIRY FOODS ASSOCIATION

Good morning, Chairman Scott, Ranking Member Thompson, and Members of the House Committee on Agriculture. My name is Mike Durkin. I am President and CEO of Leprino Foods Company, and I am here to testify on behalf of the International Dairy Foods Association and our company. As a member of IDFA, I serve as Vice Chair of the Cheese Board and as a member of the Ingredients Board and IDFA Executive Council.

IDFA represents the United States' dairy manufacturing and marketing industry, which supports more than 3.3 million jobs that generate \$41.6 billion in direct wages and \$753 billion in overall economic impact for the U.S. economy. IDFA's diverse membership ranges from multinational dairy organizations to single-plant companies and small businesses. IDFA members include dairy companies with fa-

miliar branded products and companies that co-pack for other brands and private-label products. IDFA members also range from farmer-owned cooperatives and independent processors to food retailers and suppliers. Together, IDFA members represent 90 percent of the milk, cheese, ice cream, yogurt and cultured products, and dairy ingredients produced and marketed in the United States and sold throughout the world.

Leprino Foods, a family-owned and privately held company, is headquartered in Denver, Colorado and has over 4,500 employees in the U.S. in six states including California, Colorado, New Mexico, Michigan, Pennsylvania, and New York. We will soon begin building an additional plant in Texas. Leprino is the largest buyer of milk in the United States supporting over 1,000 dairy farms. Our critical business partners include Dairy Farmers of America and Michigan Milk Producers Association. We are the world's largest producer of mozzarella cheese, and a leading supplier of dairy nutrition products, including lactose and whey. Leprino exports 26% of our milk equivalent volume to over 55 countries, well above the industry average of 16%. I testified in front of this Committee in November on the impact of supply chain challenges on our company and the dairy industry. I can tell you that those challenges persist today coupled with rising inflation and a continued shortage of workers throughout the dairy supply chain.

State of the U.S. Dairy Industry

Taken together, 2020 and 2021 were two of the strongest years on record for dairy sales and among the most challenging in terms of having a workforce to operate.

We are experiencing strong demand domestically across all segments and surging demand around the world for American dairy products.

Domestic demand remains very strong. In 2020 according to USDA data, the average American consumed 655 pounds of dairy in milk, cheese, yogurt, ice cream, butter, and other wholesome and nutritious dairy foods, demonstrating a resilient and growing love for all things dairy. The 2020 figure represents an increase of 3 pounds per person over the previous year and set a new consumption record. Ice cream continued to rebound and grew by 4% year-over-year in 2020. Meanwhile, yogurt consumption jumped 3% and butter notched a 2% increase. Milk and cheese remained resilient throughout 2020 despite the closure of restaurants, cafés, schools, and other institutions that drive demand. Since USDA began tracking dairy consumption in 1975, per capita consumption has grown 22%.

Americans now consume more dairy food products than dairy beverage products. We include dairy in more meal occasions as well as for fitness and recovery, to live a healthy life, and to celebrate special moments. With a greater focus on healthy and sustainable foods, U.S. dairy product consumption could continue growing well into the future.

Nutrition, Health & Wellness

On the whole, dairy foods remain a good buy for the American consumer when compared to other categories including meat and fish, fruits and vegetables, and baked goods. Good nutrition is the foundation of health and wellness, and dairy is a crucial part of a healthy diet beginning at a very young age. In fact, no other type of food or beverage provides the range and density of nutrients that dairy contributes to the American diet. Cow's milk alone has been found to rehydrate the body better than water and delivers 13 essential nutrients that everyone needs to stay healthy. Overall, dairy provides numerous health benefits, including better bone health along with a lower risk of type 2 diabetes and cardiovascular disease. Dairy products also play an important role in the diet of children, where dairy is the top source of calcium, potassium, and vitamin D in kids ages 2–18. The *2020–2025 Dietary Guidelines for Americans* affirmed the unrivaled contribution made by dairy foods and reminded Americans that a healthy diet includes three daily servings of low-fat and fat-free dairy. However, the DGAs also found that 90% of Americans do not consume the recommended amount of dairy, including school-aged children. Dairy products play a critical role in the diet of children, where milk is the top source of calcium, potassium, phosphorus, and vitamin D in kids ages 2–18. Case in point: 73% of the calcium available in the food supply is provided by milk and milk products; and milk is the number one source of protein in the diets of children ages 2 to 11. It is therefore important that this Committee do everything it can to develop laws and support agency policies that promote greater consumption of milk and dairy foods to fulfill critical nutrition gaps in our population.

Before the pandemic, approximately 100,000 schools served nearly 30 million students as part of the Federal school meals programs. School meals offer the most important opportunity of the day for children to get the essential nutrients they need, and dairy foods—including milk, yogurt, and cheese—are critical building blocks for

a child's health and development. At present, USDA is developing updated school meal standards consistent with the DGAs, and we can only hope that USDA will follow its own dietary guidance and continue to make dairy central to child nutrition. An overall decline in school milk consumption has been identified in recent years, particularly after whole milk and low-fat flavored milk options were removed from school meals 10 years ago. USDA can begin to reverse the trend by providing options that kids want to consume while maintaining alignment with the DGAs. More varieties of milk, including low-fat flavored milks, help to increase overall meal consumption and thereby ensure students are getting the nutrients they need, including calcium, vitamin D and potassium.

IDFA and dairy processors greatly appreciate the broad, bipartisan support among Members of Congress for maintaining low-fat flavored milk as a school meal option. This support has been demonstrated through sign-on letters to USDA, co-sponsorship of the School Milk Nutrition Act (H.R. 4635) and the Whole Milk for Healthy Kids Act (H.R. 1861) and adoption of Agriculture Appropriations protections of low-fat, flavored milk in the FY21 Omnibus Appropriations Act and in both the House and Senate FY22 Agriculture Appropriations bills leading up to USDA's "Bridge Rule" which was released in February 2022.

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides nutritious foods to supplement the diets of low-income women who are pregnant, postpartum, and breastfeeding, as well as children up to age 5 who are at nutritional risk. As Congress and USDA consider updates to WIC, we would like to see an update to WIC's Supplemental Food Package that maintains the quantities of milk and other dairy foods but includes flexibility in the varieties of milk and in package-sizing, such as yogurt, within the current allowed food categories that reflect WIC participants' preferences and market availability and allow WIC families to maximize benefit redemption.

The Supplemental Nutrition Assistance Program (SNAP) is the nation's most important anti-hunger program, reaching 38 million people nationwide in 2019. According to USDA SNAP purchase data published in 2016, 5 of the top 20 products purchased with SNAP benefits are dairy products. The Healthy Fluid Milk Incentives Projects, established in the 2018 Farm Bill is allowing participants to buy more milk and help them to make nutritious choices that support a healthy lifestyle. We appreciate the Committee recognizing dairy nutrition in SNAP through incentives, and we would like to see this program reauthorized and expanded to additional milk and nutritious dairy products in the next farm bill and will provide further detail on that later in my remarks.

Dairy products also play an important role at America's food banks, meeting food and nutrition needs for millions of Americans each week. In those settings, fresh fluid milk, cheeses, yogurt, and other dairy products are in high demand. While USDA has made changes to include more refrigerated dairy products procured for food banks and improved the procurement process, additional investments must be made to ensure adequate cold storage and refrigeration to protect perishable food is available to food banks throughout the country—especially in rural areas.

Trade & Global Competitiveness

As the world population grows by another two billion people by 2050 and continues to develop economically, the demand for protein and improved diets will increase the demand for dairy products. Dairy foods are uniquely positioned to meet the nutritional needs of a growing world with more disposable income and an appetite for higher-protein products. This will mean increased opportunities for global trade in dairy.

Recent estimates show that the United States now exports more dairy production than we consume in the form of fluid milk. There has never been a time when trade was more important to the U.S. dairy industry than it is today. Companies (including producer-owned cooperatives) in the U.S. dairy exporting community are committed to doing as much as possible as efficiently as possible to support our long-term global business relationships and maintain our presence in global markets. We recognize that once lost, our market share will quickly go to competitors in producing countries such as those in Europe or New Zealand and is unlikely to be regained given their preferential tariff advantage over the U.S. Looking ahead, with the potential to continually increase production, we believe that global U.S. dairy opportunities abound if we can develop strong trade deals that level the tariff and market access playing field with our international competitors. Given the abundant resources and tremendous ingenuity and efficiency of American agriculture, USDA predicts an additional 25 billion pounds of milk could be produced in the United States by 2030. Based on current consumption trends, we would need to export 40% of that increase in production for dairy farming and processing to remain economi-

cally viable. If we do not build our globally competitive market access now through reduced tariffs, competitive prices, and consistent shipping, our producers will be unable to grow. There is hardly a more critical priority for the U.S. dairy industry than trade.

We applaud the U.S. Government's announcement that it will once again initiate consultations, the first step in a formal dispute settlement case, over Canada's continued manipulation of dairy tariff rate quotas (TRQs) in violation of Canada's commitments under the United States-Mexico-Canada Agreement (USMCA). Our government must stay the course and hold Canada accountable.

We would also like to see the current Administration take immediate action to improve our commercial relationship with China by removing retaliatory tariffs and committing to maintain the gains made for U.S. dairy exporters under Phase One of the U.S.-China Agreement. Becoming the dairy exporter of choice to China and it is 1.4 billion citizens remains in America's long-term interest.

In addition to needing a rules-based system of trade and fair flow of goods with trading partners, U.S. dairy urges the reauthorization of Trade Promotion Authority (TPA) in Congress as soon as possible. TPA will allow the current Administration to pursue trade deals and preferential market access for our exporters, benefitting U.S. producers, workers, and our economy.

Supply Chain Challenges

I mentioned record exports for U.S. dairy to meet rising demand around the world. Today, congestion at U.S. ports is starting to ease. In April, container volume at the ports of Los Angeles and Oakland declined 6% and 15% year over year, respectively, though activity in the Port of Long Beach ticked up 10%. The number of ships moored at port has fallen from nearly 100 at the beginning of the year to below 30 today, close to the pre-pandemic average. On the other hand, East Coast ports are seeing much more traffic than usual as retailers try to diversify their supply chains. We are still seeing high volumes of empty containers leaving our ports, however. In Los Angeles, 36% of containers leaving the port are empties, compared to 28% before the pandemic. We are pleased to see USDA offering cash compensation in the Port of Oakland to shipping companies willing to fill empty containers with U.S. agricultural products and move them to destinations offshore. One company, CMA CGM, a French ocean carrier, has been proactively working on solutions with the industry along with the Port of LA. Altogether, these new efforts are making a difference.

An alliance between the Port of Los Angeles, CMA CGM, and IDFA members has led to improved movement of U.S. dairy exports through the Port of LA. This partnership has led to additional space and equipment allocated to IDFA members through the Port of Los Angeles as well as the prioritization of U.S. dairy exports for shipment to destinations in East and Southeast Asia, especially China, Vietnam, Thailand, and South Korea.

I want to thank Congress for its recent bipartisan passage of the Ocean Shipping Reform Act (OSRA), demonstrating that Congress can indeed work together to provide important tools to address supply chain bottlenecks plaguing U.S. dairy and food exports. The Ocean Shipping Reform Act will provide real, long-term solutions for the myriad issues congesting U.S. ports and slowing U.S. dairy exports. The bill places limits on ocean carriers' ability to decline export cargo and when demurrage can be charged, helping to get U.S. dairy exports on the water in a timelier manner. It also strengthens the oversight authority of the Federal Maritime Commission over ocean carriers, the majority of which are foreign owned.

Workforce & Immigration

At the end of the day, many of our production and supply chain challenges rest upon the worker shortage plaguing our nation's economy, which underscores the continuing need for comprehensive immigration reform. Today, the number of job openings is greater than the number of unemployed. We have nearly 5.4 million more jobs than unemployed Americans. The number of job openings hit 11.4 million in April. For the past few months, 4.4 million Americans have quit their jobs each month. The U.S. cannot meet demand for seasonal workers either, although the government has made available an additional 35,000 H-2B visas for temporary non-agricultural workers through the remainder of fiscal 2022—nearly twice the cap for this program. American employers had 127,000 seasonal employment opportunities they could not fill according to the most recent data. Further, as dairy is a 24/7 year-round enterprise, seasonal worker programs fail to serve as a source of labor for our industry.

By one calculation,¹ the U.S. workforce today has two million fewer immigrants than it would have if immigration had continued at pre-pandemic levels. That is bad news for U.S. agriculture, where immigrants make up $\frac{3}{4}$ of the workforce. We need an immigration system that works for all sectors of our economy, that responds to our worsening workforce challenges, and treats people fairly and equitably. One solution would be to pass legislation to fix America's broken immigration system and create a guestworker program that works for the broader food industry, including non-seasonal commodities like dairy. In addition, it is critical that any immigration legislation include processing jobs to prevent disruptions along the supply chain from the farm to the plant. I know this Committee can help lead the charge on comprehensive immigration reform—you will have a partner in U.S. agriculture and food production—and I encourage you to continue to work to advance this important policy priority.

Sustainability

Collectively, the U.S. dairy industry has committed significant resources to achieve ambitious environmental stewardship goals, including greenhouse gas neutrality, optimized water use, and improved water quality by 2050. In fact, dairy companies and processors that have voluntarily signed onto the U.S. dairy industry's Stewardship Commitment represent 75% of U.S. milk production. As an industry, U.S. dairy produces twice as much milk with half as many cows on half as much land as it did 50 years ago. Over that time, water usage decreased by 65% and dairy's carbon footprint shrunk by 63%. Since this data was gathered in 2007, U.S. dairy has continued to reduce water usage and carbon and methane emissions throughout its supply chain. When writing the next farm bill, this Committee should ensure U.S. dairy remains part of the solution to mitigating and reversing climate change by continuing to have access to voluntary, incentive-based funding opportunities that generate streams of revenue for producers while caring for the environment.

Farm Bill Priorities

As the Committee begins to discuss how the next farm bill can help the U.S. dairy industry grow and prosper, we would like to put forward three policy recommendations for the Committee's consideration. These recommendations were developed by IDFA's economic policy committee after several months of careful review and deliberation. Just last month, the association's boards of directors, which include both proprietary processors as well as dairy cooperative leaders, voted unanimously to support each of these recommendations.

Authorize USDA to Conduct Regular Cost of Processing Studies

Since 2000, USDA's Agricultural Marketing Service (AMS) has twice commissioned a university to survey U.S. dairy processors to estimate the average cost of manufacturing a pound of the four dairy commodity products (cheddar cheese, butter, dry whey, and nonfat dry milk) used in Federal Milk Marketing Order price formulas. The results of the cost surveys typically serve as the basis for changing make allowances pursuant to a Federal Order hearing. The first cost study was completed in support of a milk price hearing held in 2006 and 2007, whose results were implemented in October 2008. The milk price formulas established at that time are the formulas that remain in place today. The costs in that formula dramatically understate today's cost of manufacturing and have resulted in distortions to the dairy manufacturing sector which have constrained capacity to process producer milk. This was manifested in an extended period of milk production surpassing local processing capacity in the Northeast and Michigan, high transport costs to move milk out of those regions for processing, and, in the extreme, dumped milk that was only solved when dairy cooperatives constrained their members' production and invested in additional manufacturing capacity themselves.

The current *ad hoc* cost study program and price formula updating mechanism does not serve the needs of today's U.S. dairy industry. In the first place, cost studies are conducted very infrequently at the Federal level. As stated above, there have only been two national cost studies since 2000, the one for the mid-2000's hearing and a recently completed survey in 2021 that is already out-of-date because the data is based 2018–2020 costs, before the supply chain issues and inflationary surge that has occurred in 2021 and 2022. As a result, the 15 year old make allowances do not reflect the cost of manufacturing today's finished dairy products.

Second, because participation in these cost studies is currently voluntary, just over a third of the plants eligible to submit data for the most recent cost survey

¹<https://econofact.org/labor-shortages-and-the-immigration-shortfall>.

chose to do so.² That means the cost information collected may not accurately reflect the true cost of producing products at different size plants and in various regions of the country. Increasing the participation rate in future studies will yield data that better reflects current economic conditions and has more credibility among various industry stakeholders.

Congress can improve the current situation by directing USDA to conduct regular cost of processing studies to enable regular make allowance updates. (These studies could be similar to the state-wide studies conducted by the California State Department of Food and Agriculture before California entered the Federal Order system in 2018.) In addition, Congress should direct USDA to collect cost information from any dairy processing plant that already provides pricing data under the Dairy Product Mandatory Reporting Program for the four products contained in current pricing formulas. This will ensure the resulting cost information reflects plants of different sizes and in different regions of the country.

Given the regulated pricing system, regular cost of processing updates will provide the dairy industry with valuable information to enable regular make allowance updates, remain viable and be positioned to grow in-line with market opportunities in the U.S. and around the world.

Reauthorize and Expand the Healthy Fluid Milk Incentives Projects (HFMIIP)

Congress adopted a Healthy Fluid Milk Incentives Projects in the 2018 Farm Bill authorizing USDA to test different methodologies to encourage participants in the Supplemental Nutrition Assistance Program (SNAP) to increase their purchases of fluid milk products as recommended by the *Dietary Guidelines for Americans* (DGAs).³ Approximately 90 percent of all Americans do not meet current U.S. recommendations for dairy consumption and only 65 percent of young children, 34 percent of adolescents, and about 20 percent of adults drink milk daily.⁴ As discussed earlier in my testimony, under-consumption of dairy products can contribute to negative health outcomes for Americans in all life stages, including SNAP beneficiaries.

Purchase incentive programs, like the HFMIIP, can help combat this trend by providing SNAP participants with financial encouragement to purchase healthy food for their families. Similar to the Gus Schumacher Nutrition Incentive Program (GusNIP) for fruits and vegetables, the HFMIIP provides SNAP households with financial incentives when they purchase qualifying fluid milk at authorized retailers. For example, when a SNAP beneficiary uses his/her benefits to purchase qualifying fluid milk, they receive a dollar-for-dollar coupon or point of sale credit that can be used to purchase another fluid milk or qualifying dairy product.

The Baylor Collaborative on Hunger and Poverty has been selected by USDA to administer the HFMIIP program. The initial four pilots were launched in Texas in May 2021 with another pilot added in September 2021. Nine more pilots were initiated earlier this month (eight in New Jersey and one in Texas) and another expansion of the program, which would include 33 additional retail outlets, is scheduled to begin in January 2023. In addition, USDA is expected to award additional funding by October that should allow approximately 250 new pilot projects targeting more regions of the country and different types of retailers, including convenience stores, rural retail chains and urban bodegas that are licensed to participate in SNAP.

USDA will be providing Congress with a report on this program by the end of 2022 but based on what we have observed in the initial pilots, our industry believes that the program should be reauthorized with dedicated funding, and that the program should be expanded to include other nutritious dairy products, like cheese and yogurt. Expanding the program would help more SNAP families achieve positive health outcomes due to increased dairy consumption. In addition, we would urge Congress to expand the definition of qualifying fluid milk products to include two percent and whole milk varieties given that more than 80 percent of American consumers choose these varieties in the grocery store. Dairy products of all fat levels add important and under-consumed nutrients to the diet, while an increasing number of peer-reviewed research shows that higher fat dairy products do not have a

²A total of 153 dairy plants were invited to submit data for the most recent USDA cost of processing study. Ultimately, data was provided by 10 cheddar cheese plants; 8 dry whey plants; 27 nonfat dry milk plants; and 12 butter plants for a total of 57 plants.

³Section 4208 of Public Law 115-334, the Agriculture Improvement Act of 2018, December 20, 2018.

⁴*Dietary Guidelines for Americans, 2020–2025*, p. 33.

negative effect on risk of obesity, cardiovascular disease or cardiometabolic risk markers.⁵⁻⁷

Permanently Authorize the Dairy Forward Pricing Program

Congress originally authorized the Dairy Forward Pricing Program in the 2008 Farm Bill, and it has been reauthorized in every farm bill since then. This program allows producers to voluntarily enter into forward price contracts with handlers for pooled milk used to manufacture Class II, III, or IV products. Current authority for this program expires on September 30, 2023. This means that no forward price contracts may be entered into under the program after that date, and no forward contracts under the program may be extended beyond September 30, 2026.

Making this program permanent could facilitate additional industry utilization of this risk management tool because it would mitigate concerns from potential parties regarding forward contracts with shorter durations due to a pending program expiration date. Failure to extend the program will remove a valuable risk management tool which is now available to producers and processors. Given that this program has nearly universal support among producers and handlers (buyers), we would recommend that Congress make this program permanent to make it an even more attractive risk management tool for our industry.

Dairy Donation Program

Mr. Chairman, we would also like to express our support for the Dairy Donation Program that was authorized as part of the Consolidated Appropriations Act of 2021. The purpose of this program is to facilitate the timely donation of eligible dairy products to food-insecure families and to prevent and minimize food waste. The Act provided \$400 million to fund this program.

Since the start of the COVID-19 pandemic, U.S. dairy producers and dairy foods companies have led efforts to feed the hungry and support struggling communities. The Dairy Donation Program has provided our industry with one more tool to reach Americans in need. The dairy industry welcomes the opportunity to continue to partner with nonprofits, charities, and other organizations working to combat hunger and nutrition insecurity. The Dairy Donation Program helps to ensure high-quality, nutritious products like milk, cheese, yogurt and more will get to those who need them most, while ensuring dairy foods processors receive a fair market value for their healthy products.

Milk Pricing

While the focus of this hearing is on dairy programs authorized in the farm bill, I would like to briefly discuss an important and increasingly urgent issue of shared interest for both dairy producers and their processor partners. To ensure our industry can continue to grow and prosper, regulated milk pricing formulas must be addressed.

Developed in the 1930s, USDA maintains the Federal Milk Marketing Order System that sets minimum milk prices that regulated processors must pay. Since 2000, formulas that back into minimum regulated milk prices based upon finished product values, have been used for some product groups. Specifically, milk used to produce the “market-clearing” products of cheese, whey, butter, and nonfat dry milk is priced based upon the net revenue as calculated by USDA. The key elements include: the average price received for those products nationally, the volume of those products assumed to be produced from a given volume of milk, and an assumed cost to convert raw milk into those products. Effectively, it is a system that directly transfers the market value of these products to dairy producers while allowing manufacturers of those products to retain only the assumed cost of manufacturing; this cost is commonly called a “make allowance”.

Current make allowances are based on 2006 and 2007 costs which are now more than 15 years old, rendering the assumed milk processing costs woefully out-of-date. Coupled with recent inflationary pressures, the need to address this lag is now extremely urgent. While our proposal to authorize USDA to conduct regular cost sur-

⁵ Vanderhout S.M., Aglipay M., Torabi N., Jüni P., da Costa B.R., Birken C.S., O'Connor D.L., Thorpe K.E., and Maguire J.L. *Whole milk compared with reduced-fat milk and childhood overweight: a systematic review and meta-analysis*. AM. J. CLIN. NUTR. 2019; 00: 1–14.

⁶ O'Sullivan T.A., Schmidt K.A., and Kratz M. *Whole-Fat or Reduced-Fat Dairy Product Intake, Adiposity, and Cardiometabolic Health in Children: A Systematic Review*. ADV. NUTR. 2020; 00: 1–23.

⁷ Duarte C., Boccardi V., Amaro Andrade P., Souza Lopes A.C., Jacques P.F. *Dairy versus other saturated fats source and cardiometabolic risk markers: Systematic review of randomized controlled trials*. CRIT. REV. FOOD SCI. NUTR. 2021; 61: 450–61.

veys will eventually provide data to address this in the longer term, steps must be taken now to ensure adequate processing capacity remains.

Updating make allowances to reflect current costs will enable producer milk to have a home. As the out-of-date make allowances make it difficult for dairy processors to justify capital investments, industry growth is threatened. Further, without an update, farm-level resources will be underutilized and there will be less opportunity for longer-term job growth. This scenario also has the potential to price U.S. exports out of global markets and could even lead to increased imports of certain dairy products. Such a result would represent a major setback for the U.S. dairy industry given our decades-long focus and clear opportunity to become the world's dominant dairy supplier. Finally, if U.S. milk production is limited, prices for milk, cheese and other dairy products will increase, hurting consumers who are already paying more for food purchases due to ongoing inflationary pressures.

In addition, given that dairy producers and their cooperatives own a significant number of cheese/whey plants and especially butter/powder manufacturing facilities, producers who belong to a manufacturing cooperative will benefit from accurate make allowances, as well. Accurate make allowances would match cooperatively owned manufacturing costs and eliminate the need for those cooperatives to "re-blend" (withhold dollars from producer pay prices) to cover manufacturing losses. Updating make allowances to fully reflect today's manufacturing costs would put the farmer owners of manufacturing cooperatives back on even footing with producers who ship to marketing—only cooperatives (cooperatives that do not own processing facilities).

More broadly across dairy processing, additional issues exist, as well. Bankruptcies in the bottling (fluid milk) sector further illustrate updates are needed to ensure dairy processing remains healthy and viable for producers to have adequate outlets for their milk. Updates to the system will help ensure nutritious dairy remains affordably available to American consumers and for export markets beyond.

I am happy to report that discussions are currently underway within our industry to address this issue in the short-term. Processors and dairy cooperatives are working to develop a proposal that can be considered as part of a Federal Order hearing as Secretary Vilsack has stated USDA will not convene a hearing unless processors and producers reach consensus on a proposed solution. While industry discussions are ongoing, we have not yet reached an agreement on a path forward. I urge Congress to allow this collaborative effort to continue and not to address any milk pricing issues legislatively unless they are supported by all segments of our industry. This type of intervention could have unintended consequences, including the creation of artificial price signals that could lead to over-production and allow for market manipulation. That said, prompt resolution to these issues via a hearing remains urgent for our dairy industry.

Thank you for the opportunity to appear before you today. I will be happy to answer any questions you may have.

The CHAIRMAN. Thank you. And now, Mr. Forgues, please begin when you are ready.

**STATEMENT OF TRAVIS FORGUES, EXECUTIVE VICE
PRESIDENT OF MEMBERSHIP, ORGANIC VALLEY | CROPP
COOPERATIVE, LA FARGE, WI**

Mr. FORGUES. Good morning, Chairman Scott, and all Committee Members. My name is Travis Forgues. I have served as Executive Vice President of Membership for Organic Valley since 2013, but more importantly, before that, I was an organic dairy farmer from Alburg Springs, Vermont for 16 years, and yes, I still miss our cows. Organic Valley is a marketing cooperative with nearly 1,800 farmers in 34 states. We are predominantly dairy and market Organic Valley branded products, as well as ingredients for commercial dairy buyers. We own three dairy processing facilities and work with dozens of co-processors across the U.S.

The organic dairy sector witnessed a demand surge as COVID-19 first gripped the nation. Consumer purchasing patterns changed, and, according to the Organic Trade Association survey data, average annual category growth was around 5½ percent for

2020 and 2021 combined. That said, the most recent data shows growth is flat, but we at Organic Valley continue to meet our sales expectations, indicating some of those purchasing shifts to value-added dairy are persisting.

While the co-op is cautiously optimistic about the demand for organic dairy, and, in fact, is bringing on 58 additional farms in the Northeast who will be shipping with us by August, we must note serious headwinds, primarily driven by inflation and international disputes, which threaten the organic dairy marketplace. For context, Organic Valley's transportation costs to get goods to retail has increased 36 percent. Dairy processing costs are up 14 percent and climbing. Organic corn, soy, and hay are up 30, 55, and 48 percent respectively, with some regional variability. Farm pay prices for our farmers have increased slightly, and we are planning to expand the volume of milk we procure from membership four percent by the end of 2023.

To mitigate some of these incurred costs, we have increased consumer prices for our branded products as much as 8 to 14 percent for some items. Some of these price increases are just hitting the marketplace now, so it is unclear how they will be received. These increases are meant to cover co-op operating expenses and are not nearly enough to move resources back to farms that are wrestling with high fuel and high feed costs. The honest reality is the current environment is very daunting for many organic dairy farmers.

For the next farm bill, we urge the Committee to focus on efforts to bring stability for small farms and their supply chain partners, and to strengthen dairy farm resilience. Dairy farming and the dairy industry differ across the U.S. Crafting a national farm policy that spans those variances is a difficult, if not near impossible, proposition. One recent policy development in the last farm bill was the Dairy Business Innovation Initiative, which seeks to address region-specific needs of the industry. Currently there are four initiatives anchored in the States of Vermont, Wisconsin, Tennessee, and California. We urge a reauthorization and expansion of the Dairy Business Innovation Initiative to better service region-specific dairy opportunities and challenges. These initiatives convene farmers, industry partners, and academia with funding to tackle production, processing, and marketing needs of dairy specific to each individual initiative's coverage area.

As we all know, dairy farming is more than just cows and milk, and we believe U.S. farm policy must be intent on leveraging greater sustainability so agriculture can better absorb the shocks of weather, markets, and unforeseen conflicts, be it a pandemic or geopolitical dispute. We must create a more resilient food system. The farm bill should seek to expand the Rural Energy for America Program. Let us get renewable energy on every dairy farm that wants it. We can better support grass-based farming systems. Let us get more animals on the land in a way that provides stacked environmental benefits. Needed is technical assistance, structural cost-sharing provisions, and new technologies. Standardize the accounting and verification of carbon reductions measures in agriculture. Policy and oversight is needed to level set-carbon markets. In agriculture, some commodity and product claims on carbon reductions are reliable. And maximize regenerative farming ap-

proaches. Prioritize manure management techniques, such as composting, and other soil health practices that lessen dependence on off-farm crop inputs.

In conclusion, I cannot overemphasize the need to focus intently on keeping small family farms viable in this next farm bill. They are the social and economic engine of rural communities across this country. It is vital we work together to help these families stay on the land, providing nutritious food and economic opportunities for today, and in the future. My written testimony provides greater details on investments to support organic dairy producers and dairy industry participants. Thank you for the opportunity to provide remarks, and I welcome any questions from Committee Members.

[The prepared statement of Mr. Forgues follows:]

PREPARED STATEMENT OF TRAVIS FORGUES, EXECUTIVE VICE PRESIDENT OF MEMBERSHIP, ORGANIC VALLEY |CROPP COOPERATIVE, LA FARGE, WI

Good morning, Chairman Scott and Committee Members,

I have served as Executive Vice President of Membership for Organic Valley since 2013 and oversee all cooperative membership engagement which includes 167 staff that are responsible for dairy hauling and scheduling, farmer resources, field operations, data analytics, milk management and farmer payroll, feed, meat and produce programs as well as farmer governance and communications.

Before employment at the co-op, I was a farmer-member and the first organic dairy farmer to join the cooperative from Vermont. Between 1999 and 2013 as a farmer-member, I pioneered the co-op's young farmer leadership program, Generation Organic™ (Gen-O™), served on the co-op's board of directors and dairy executive committee, and was active in the Farmers in Marketing program.

Organic Valley |CROPP Cooperative was established in 1988 in southwestern Wisconsin with seven farmer-members. Today, with sales topping \$1.2 billion, the cooperative has nearly 1,800 farmer-members in 34 states and four countries. Focused predominately on organic dairy, the cooperative works with dozens of dairy processors nationwide to manufacture an array of Organic Valley branded products as well as bulk and ingredient commercial offerings. The cooperative maintains three dairy processing facilities in two states as well as two subsidiaries, a distribution company called Organic Logistics and a meat business called Organic Meat Company.

Organic Valley |CROPP Cooperative's mission is to create and operate a marketing cooperative that promotes regional farm diversity and economic stability by the means of organic agricultural methods and the sale of certified organic products. The average size herd on a CROPP Cooperative dairy farm is 78 cows.

State of Organic Dairy

The organic dairy sector witnessed a demand surge as the COVID-19 pandemic first gripped the nation. Consumer purchasing patterns shifted and according to the Organic Trade Association survey data,¹ average annual category growth was around 5.5% for 2020 and 2021 when combined. That said, the most recent data shows growth is flat, but we at Organic Valley continue to meet our sales expectations indicating some of those purchasing shifts to premium dairy are continuing.

While the co-op is cautiously optimistic about the demand for organic dairy, and in fact is bringing on 58 additional farms in the Northeast who will be shipping with us by August, we must note serious headwinds driven by inflation and international disputes threaten the organic dairy marketplace.

For context:

- Transportation costs to get goods to retail has increased by 36%
- Dairy processing costs are up 14% and climbing
- Organic corn, soy, and hay are up 30%, 55% and 48% respectively with some regional variation
- Farm pay prices for us have increased slightly and we are planning to expand the volume of milk we procure from membership 4% by the end of 2023

¹<https://ota.com/news/press-releases/22284>.

To mitigate some of these incurred costs, we have increased consumer prices for our branded products as much as 8% to 14% for some items. Some of these price increases are just hitting the marketplace now, so it's unclear how they will be received. These increases are meant to try to cover co-op operating expenses and are not nearly enough to move resources back to farms that are wrestling with high fuel and high feed costs.

The honest reality is the current environment is very daunting for many organic dairy farmers.

Dairy and Farm Program Review

For the next farm bill, we urge the Committee to focus on efforts to:

- (1) bring greater stability for small farms and their supply chain partners
- (2) strengthen dairy farm resilience

Dairy Business Innovation (DBI) Initiatives

Dairy farming and the dairy industry differ across the U.S. Crafting a national farm policy that spans those variances is a difficult, if not nearly impossible, proposition. One recent policy development in the last farm bill was the Dairy Business Innovation Initiative which seeks to address region-specific needs of the industry. Currently, there are four initiatives anchored in the states of Vermont, Wisconsin, Tennessee, and California. These initiatives convene farmers, industry partners, and academia to tackle production, processing, and marketing needs of dairy, specific to each individual initiative's coverage area.

We urge a reauthorization and expansion of the Dairy Business Innovation Initiative. Specific improvements include:

- Provide an authorization for appropriations of \$30 million each fiscal year
- Instruct USDA to ensure DBI's engage a broad range of stakeholders in programming, grant-making, and priority setting, and to hold an annual public session to assess the previous year's outcomes and to solicit comments on how the funding of awards should be determined
- Review distribution of DBI funding across the four initiatives to understand the scale of results for relevant populations (dairy farmers and dairy processors) served
- Consider adjusting maximum award caps for DBI funded projects and allow minor construction costs, up to \$10,000, be eligible for program funding.

Maintain the Dairy Margin Coverage (DMC) Program. Organic Valley supports the DMC as it is currently offered. We believe the two tiers and premiums levels are scaled appropriately, and the program is an option for producers who wish to mitigate risk when facing a margin condition of high feed costs and low milk price that would be especially traumatic for independent, family-scale dairy operations. While not a perfectly aligned tool for organic producers, who must graze cattle to meet organic diet requirements and are only tangentially impacted by national feed and milk prices, hundreds of our members are enrolled in the program.

We acknowledge the DMC only encompasses a feed-milk price margin dynamic and with inflationary pressures impacting most dairy farm inputs, the DMC is ill equipped to aid producers with other substantial variable costs.

A recent analysis, "U.S. Dairy Market and Policy Overview"² out of the University of Illinois, provided observations that small farms may receive less protection against declines in net returns compared to larger farms. Their summary observations are outlined below.

Summary Observations

Since the U.S. began transitioning to a milk payment program from a milk price support program in the late 1990s, variability of milk price and net return has increased notably.

Analysis in this article suggests a program that bases dairy policy payments on the milk price-feed cost margin, such as the current DMC program, provides the most protection against decline in milk profitability for the largest dairy farms. Protection is notably less for dairy farms with less than 50 cows, with some slippage for dairy farms with 50–99 cows.

²Zulauf, C., G. Schnitkey, K. Swanson and N. Paulson. "US Dairy Market and Policy Overview." (<https://farmdocdaily.illinois.edu/2021/11/us-dairy-market-and-policy-overview.html>) FARMDOC DAILY (11): 158, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, November 22, 2021.

This finding prompts a policy equity issue: “Should dairy policy be fair across herd sizes?”

If policy deliberations conclude that this fairness issue should be addressed, a per cow payment for a policy specified, limited number of cows per dairy operation is a potential policy option.

This policy option is in essence a policy addendum to DMC to mitigate an equity issue created by DMC without changing DMC.

It could be implemented by basing the per cow payment on the decline in net return not covered by the change in DMC’s milk-feed margin for dairy operations with less than a given number of cows.

Payment could be restricted to herds with less than the given number of cows. However, such limits are usually difficult to effectively implement because farms rearrange their operation to qualify for payments. A per cow payment up to the given number of cows could thus be made to all dairy operations. Small dairy farms would however receive the greatest benefit since a larger share of their cows receive a payment.

Organic Valley would support Committee exploration of such a policy addendum to DMC that creates a threshold to trigger a per-cow payment at an established number of cows to address the other costs dairy farmers are incurring in the current environment and to ensure greater program equity for small farms.

Organic Valley also supports testimony provided by International Dairy Foods Association, and in particular the *Healthy Fluid Milk Incentives Projects* request. We have maintained an active membership in the trade association where dairy pricing, trade, and industry affairs are frequently discussed.

Dairy Resilience and Dairy Sustainability

As we all know, dairy farming is more than just cows and milk, and we believe U.S. Farm Policy must be intent on leveraging greater sustainability so agriculture can better absorb the shocks of weather, markets, and unforeseen conflicts—be it a pandemic or geo-political dispute. We must create a more resilient food system.

Farm policy concepts to maintain or enhance include:

Rural Energy for America Program

We should strive to get renewable energy on every dairy farm that wants it. Reforms should include:

- **Increase REAP funding to \$300 million per year**—Currently, REAP is at \$50 million per year but the program is historically oversubscribed
- **Increase cost-share**—REAP cost-shares only 25% of a renewable energy project’s cost. This is dreadfully low compared to other USDA farm conservation and value-added programs. To serve more applicants and accelerate technology adoption, Federal cost-share for grants should be increased to 50%
- **Invest in staff and outreach**—Reforms should provide specific direction and resources to USDA on staffing state RD offices with energy specialists. Coordination between other USDA agencies should be enhanced
- **Enhance programmatic elements to ensure family farmers and solar options receive fair recognition**—REAP applicants are judged in part by whether their renewable energy system could replace 100% of a farm’s energy use and whether it can pay for itself within 10 years. However, some utility companies impose net metering limits that discourage farmers from building systems big enough to meet those criteria. These scoring limitations must change since they are out of an applicant’s control. An additional priority should be made to resource technologies and projects with strong net greenhouse gas emissions reductions.
- Enable program components like Reserve Fund and REAP Rebate to leverage clean technology deployment
- **Expand REAP access and equity**—Consider creating set-asides (5% to 10%) of total yearly funds or institute more favorable cost-share terms for Black, Indigenous, and people of color farmers/business owners as well as beginning farmers and ranchers
- **Recalibrate thresholds for the smaller project funding pool**—Increase the maximum award request in the smaller project funding pool from \$20,000 and under to \$40,000 and under. A simple adjustment for inflation since the program’s start would validate an increase and reflect the overall needs of farmers and rural businesses in this category of need

Grass-based Farming Systems

Grass-based livestock systems create a landscape that, when properly managed, is environmentally friendly and can be more resilient to major weather events. Within organic dairy, grazing is required as part of the regulation but complementary support to maximize grazing efficacy is severely lacking. The right recipe of public and private signals can help farmers succeed at incorporating more grass-based production on their farms, be it organic or non-organic. Finding the appropriate public policy incentives and economic footing for this system deserves greater attention. Policy options should include:

- Expand the Grazing Lands Conservation Initiative with \$50 million per year in mandatory farm bill funding. The Federal farm bill's Grazing Lands Conservation Initiative (GLCI) once functioned as a powerful tool that enabled states to effectively deliver tailored education and technical assistance to farmers wanting to graze more effectively. GLCI is a specific allocation to USDA's NRCS that, in turn, is offered to state grazing networks, consortiums, extension services, and conservation entities that are providing hands-on grazing support.
- GLCI was resourced for over a decade, reaching \$27 million by 2008, but over the last 14 years it has only received minor funding. With climate challenges and growing interest demonstrated by producers and consumers for animal products from grass-based systems, the time is now to unleash this once popular and effective effort by rebirthing GLCI at \$50 million a year. Successful transitions to management intensive rotational grazing (MIRG) are characterized by mentorship, education, and resources. A study in Alabama revealed educational events had a positive impact on farmers cultivating appropriate grass types, adopting MIRG and associated technology, and increase their household income. The study emphasized the need for small farm outreach through education and technical support.³
- Prioritize NRCS Financial Assistance to expand the infrastructure for grass-based livestock systems. The Federal farm bill also includes substantial funding for working lands conservation, including grazing, through the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP). In fact, in the most recent iteration of the farm bill (2018), Congress specifically directed NRCS to make higher incentive payments (a 50% bonus) for advanced grazing management, including MIRG, within the CSP.

NRCS with instruction from Congress can further support sustainable grazing by directing that:

- Half of EQIP funding, offered annually to support animal agriculture, be dedicated to grazing infrastructure and management.
- A wider range of advanced grazing enhancements be added to CSP with robust payment levels.
- CSP payments for the annual management of previously adopted conservation measures pay at cropland rates whenever cropland is used for pasture.
- Restore the CSP funding that was cut in 2018.
- Enhance Risk Management Agency products for grazing systems that are underutilized. The USDA Risk Management Agency (RMA) launched the Pasture, Rangeland, Forage (PRF) Pilot Insurance Program in 2017. The program exists to insure farmers against drought by calculating forage losses based on lack of precipitation per grid area. To date, the program has been under advertised and underutilized.⁴ USDA should further invest in risk management by creating greater incentives for PRF enrollment and increasing accessibility and awareness of the program.

RMA should consider cooperative agreements with organizations and agencies to elevate PRF. Incentives might also be offered to crop insurance agents to encourage them to more actively seek clients.

USDA should also expand and make permanent the June 1, 2021, RMA action that provides farmers who planted cover crops during the 2021 crop year

³Karki, Lila and Uma Karki. "Impact of an Educational Program on a Year-Round Forage Production and Grazing Management System in Alabama." *Professional Agricultural Workers Journal*. 7(1): 49–64. 2019. ageconsearch.umn.edu/record/301211/.

⁴"Pasture, Rangeland, Forage Pilot Insurance Program." Risk Management Agency. USDA. Aug. 2017. <https://www.rma.usda.gov/Fact-Sheets/National-Fact-Sheets/Pasture-Rangeland-Forage-Pilot-Insurance-Program>.

with a \$5 per acre insurance premium discount.⁵ Moreover, given the even greater climate mitigation potential of carefully managed grass-based agriculture, a similar or even greater premium discount should be offered for PRF policies.

- Launch a \$100 million national research initiative to enable adaptive grazing systems in the U.S. The next farm bill should look to establish a cross-cutting research initiative for adaptive grazing systems within the USDA Research, Education, and Economics mission area. With the use of National Institute of Food and Agriculture (NIFA) competitive grants, primary research at the Agriculture Research Service, and cooperative agreements with nonprofit and community organizations with relevant expertise, the nation can:
 - Expand the body of grazing knowledge and learning opportunities for farmers, ranchers, and those assisting producers
 - Leverage technology adoption for more effective pasture management.
 - Optimize forage types for specific livestock, locations, and environmental stresses.
 - Seek ways to better quantify carbon sequestration and the climate science of grass-based systems along with the value of other stacked conservation benefits
 - Enhance farmer and rancher profitability and the reporting of market trends for grass-fed meat and dairy products
- Establish enforceable USDA animal-raising claim standards for grass-fed to govern the labeling of all meat and dairy products. Fraudulent or misleading product labels and claims cost farmers who are following strict standards tremendously in lost sales and income. USDA's Food Safety Inspection Service should work cooperatively with the USDA's Agricultural Marketing Service (AMS) to establish strong, clear standards and auditing and verification procedures, including the option of third-party certification.

Standardize the accounting and verification of carbon reductions measures in agriculture

Policy and oversight are needed to level set-carbon markets in agriculture so commodity and product claims on carbon reductions are reliable and transparent. Along with other stakeholders, we continue to believe a normalized science-based accounting for carbon capture and reduced GHG emissions is paramount. Congress should instruct USDA to advance this positioning.

Maximize regenerative farming approaches

Regenerative agriculture solutions are *already* embedded in Federal farm conservation programs and should be scaled up through existing pathways within the upcoming farm bill.

The following practices should be prioritized for funding and are useful to organic dairy operations:

- Cover Crops
- Crop Rotation
- Organic Amendments
- Conservation Tillage
- Livestock Integration & Prescribed Grazing
- Manure Collection and Storage Improvements
- Agroforestry
- Compost Application

Beyond the aforementioned practices, we recognize there is a large gap in technical assistance to meet the needs of organic dairy farmers across production systems, scales, and geographic regions. We recommend maintaining the Conservation Innovation Grants and Regional Conservation Partnership Program as well as making permanent the new USDA programming for organic transition that was announced June 1, 2022 as part of the "Framework for Shoring Up the Food Supply

⁵"Pandemic Cover Crop Program." Risk Management Agency. USDA. Jun. 2021. <https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Pandemic-Cover-Crop-Program>.

Chain and Transforming the Food System to Be Fairer, More Competitive, More Resilient”,⁶

In addition, Congress should evaluate existing state programs like the Alternative Manure Management Program being used by dairy farms in California to modernize and retrofit manure handling systems that benefit the local and global environment. Creating a Federal version of the California program would be of great benefit to small dairy farms and climate-smart agriculture.

Organic Agriculture Specific Dairy Features

Organic Valley applauds the USDA for publishing the Origin of Livestock final rule in March 2022. The long-awaited final rule clarifies the expectation for how operations source and transition dairy animals for organic milk production. This rule-making was in process for 7 years and regrettably created competitive harm among industry participants during that period of time. It underscores a more systemic challenge in USDA’s ability to update organic practice standards to reflect industry and consumer expectations of certified organic.

Organic Valley strongly supports the Continuous Improvement and Accountability in Organic Standards Act (HR 2918). The bill puts in place an improved Federal process by requiring USDA to:

- Issue and Organic Improvement Action Plan
- Develop a framework to advance standards updates when affirmative recommendations are made by the National Organic Standards Board
- Conduct specific review of certifier’s actions regarding the interpretation and implementation of new standards; and requires an annual report to Congress on the National Organic Program action plan and activities in rulemaking and standards development

Additionally, we support maintaining the National Institute of Food and Agriculture, Organic Research and Extension Initiative baseline funding of at least \$50 million annually in next farm bill, and would encourage you to increase this to \$100 million annually over time. This program has resourced numerous organic dairy research projects at land-grant universities throughout the nation. Last, the co-op supports all efforts to simplify and streamline both the National Organic Certification Cost-Share Program, and the Organic and Transitional Education and Certification Program administered by USDA.

Thank you for the opportunity to provide both oral and written testimony for the “A 2022 Review of the Farm Bill: Dairy Provisions.” I welcome any additional questions or follow-up from Committee Members as you take on the monumental task of developing the next farm bill.

Dairy Farm Representation



⁶<https://www.usda.gov/media/press-releases/2022/06/01/usda-announces-framework-shoring-food-supply-chain-and-transforming>.

Sustainability

The CHAIRMAN. Thank you very much. And now, Dr. Bozic, please begin when you are ready.

**STATEMENT OF MARIN BOZIC, PH.D., ASSISTANT PROFESSOR,
DEPARTMENT OF APPLIED ECONOMICS, UNIVERSITY OF
MINNESOTA, ST. PAUL, MN**

Dr. BOZIC. Chairman Scott, Ranking Member Thompson, Members of the Committee, thank you for inviting me to participate in this hearing. I am employed as an Assistant Professor in the Department of Applied Economics, University of Minnesota. I have been on faculty for 11 years. My research focuses on dairy markets, risk management, and dairy policy. I am going to talk about two topics, DMC, and then Federal Orders.

Agriculture Improvement Act of 2018 substantially reformed the dairy safety net by transforming poorly functioning Margin Protection Program into highly effective Dairy Margin Coverage Program. At the highest coverage level, \$9.50 per hundredweight, DMC provides coverage for 20 percent of U.S. milk production. Had DMC been in effect for the last 21 years, since year 2000, its benefits would exceed costs to producers in 19 out of 21 years. Last year it paid over \$1 billion to producers. This year no payments are estimated, per my model, due to high projected margins.

Several research papers in prior years have expressed concerns that DMC may provoke additional milk supply, however, due to widespread use of processor-level supply management programs introduced during COVID, I do not believe that DMC will cause oversupply, even if rules regarding updates to individual production history were to be further relaxed. By and large, Dairy Margin Coverage appears to be effective in accomplishing the legislative intent.

On Federal Milk Marketing Orders, in 2018 U.S. Congress modified the formula used to calculate the price that fluid milk processors must contribute to Federal Order pools. The reason for the change was to facilitate hedging of raw milk purchases by non-traditional fluid milk processors, such as large restaurant and coffee house chains. The hope was that such change would increase fluid milk sales, and thus increase Federal Order benefits to dairy producers. And, to simplify, as long as prices of cheese and milk pow-

ders would move in the same direction, and with approximately the same intensity, there was little to lose, and potentially much to gain, from the fluid milk formula change. Unfortunately, the pandemic affected cheese and milk powder markets in a profoundly different way. Federal Government intervention through Farmers to Families Food Box Program dramatically increased cheese prices, while milk powder prices were not affected. The new formula resulted in substantially lower milk checks, and a widespread sense of injustice among producers in fluid heavy areas.

There are several broad aspects of this issue that should be considered in future reforms. First, lack of wide public debate on proposed reforms increases odds of a fragile or flawed policy design. Federal Orders have comprehensive protocol for instituting changes through an industry hearing process, and legislative changes are best left for changes that cannot be done through a hearing. Second, to the maximum extent possible, the next farm bill should not make risk management less effective, either for dairy producers or dairy processors. And finally, no reform can be considered complete until it fully contemplates the long-term trends in U.S. dairy markets. My estimates are that over the next 10 years the share of U.S. milk production utilized in beverage milk is likely to fall from 18.3 percent this year to 14.5 percent 10 years from now.

Last year we crossed a major milestone. We now export more milk solids than we consume domestically in beverage milk products. My estimates are that, over the next 10 years, between 45 and 60 percent of all additional skim milk produced because our cows are getting better, that will need to be exported. And if our regulatory framework remains centered on prescribing minimum prices for raw milk consumed domestically in beverage milk products, it will be increasingly irrelevant for the majority of U.S. regions where milk is primarily used in manufactured dairy products. The ultimate question we must ask is the following. Do Federal Milk Marketing Orders suffice, today and in the future, to deliver fair milk prices to dairy producers? I lack confidence to answer that question in the affirmative.

The critical missing ingredient is vibrant competition for farm milk. Today it is extremely difficult for most producers to switch from their current buyer to another one. Anecdotal evidence, from conversing with dairy producers, consultants, and educators, suggests that—some presence of anti-competitive behavior from some processors. Some dairy producers have confided to me that when a prospective milk buy was willing to take them on as a patron, their current milk buyer stopped that from happening. Farmgate price discovery is also challenged by the lack of competition. If a corn producer wishes to know how different local elevators would pay for corn, all they need to do is go online, or tune in to their local radio station. In contrast, when some dairy producers have asked their milk—their consultants or educators for milk pricing—milk price benchmarking information, those service providers have, in multiple instances, faced tacit disapproval, or even aggressive legal threats, from some dairy processors.

Now, we should not rush to generalize from anecdotal evidence, but, in my opinion, it would also be prudent not to ignore it. Fur-

ther research, and an honest debate on competition in dairy, is merited. Thank you for the opportunity to appear here today.

[The prepared statement of Dr. Bozic follows:]

PREPARED STATEMENT OF MARIN BOZIC, PH.D., ASSISTANT PROFESSOR, DEPARTMENT OF APPLIED ECONOMICS, UNIVERSITY OF MINNESOTA, ST. PAUL, MN

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for inviting me to participate in this hearing.

I am employed as an assistant professor in the Department of Applied Economics at the University of Minnesota. I have been on the faculty at the university for 11 years. My research focuses on dairy markets, risk management and dairy policy. I frequently collaborate with the U.S. Department of Agriculture to research policy-relevant issues and develop risk management tools for dairy producers. Outside of my academic appointment, I support the U.S. livestock sector as the principal of Bozic LLC, a consultancy and technology company that designs and maintains all three livestock insurance plans currently supported by the Federal Crop Insurance Corporation: Dairy Revenue Protection, Livestock Risk Protection, and Livestock Gross Margin. As an insurance designer, it is my role to collaborate with the USDA Risk Management Agency to ensure that these programs are actuarially fair and effective for reducing risk in the livestock sector and that policy rules promote program integrity. I also regularly help industry groups understand dairy regulation in the U.S. and overseas. I appear in front of you today representing myself, as an independent academic researcher and a public servant employed at a land-grant university. My statements do not represent the opinion of the University of Minnesota or any other entities in which I have a financial or business interest.

This testimony summarizes my evaluation of two dairy policy reforms passed in the Agricultural Act of 2018: Dairy Margin Coverage (DMC) and Federal Milk Marketing Orders.

Dairy Margin Coverage

The Agricultural Act of 2018 substantially reformed the dairy safety net, by transforming the poorly functioning Margin Protection Program into the highly effective Dairy Margin Coverage (DMC) program. Dairy Margin Coverage indemnifies participating dairy producers when the national average income over feed cost margin falls below the coverage level chosen by the producer (Congressional Research Service, 2019). The 2018 reform increased the maximum coverage level from \$8.00/cwt to \$9.50/cwt and authorized the change in the feed cost formula to include dairy-quality hay prices instead of ordinary alfalfa hay prices.

From January 2019 through April 2022, DMC margins averaged \$8.95/cwt. Margins were lower than \$9.50/cwt in 23 months, or 57% of the time. DMC participation peaked in 2021 at 46.2 billion pounds covered at the highest coverage level, \$9.50/cwt. That represented 20.4% of U.S. milk production. For 2022, 43 billion pounds were covered at the \$9.50/cwt level, representing 19% of estimated 2022 U.S. milk production.

Had DMC been in effect since 2000, over the previous 21 years the program would have had a major impact on net farm income of participating dairy operations. An operation that could cover 95% of their milk marketings at \$9.50/cwt would have seen their net farm income over 2000–2021 period increased on average \$1.40/cwt. Benefits received by producers would be higher than premiums paid into the program in 19 out of 21 years. In 2021, the program paid over \$1 billion in indemnities. For 2022, no payments are estimated due to high projected margins. One of the goals of the DMC program was to slow down the pace of consolidation in the dairy sector. In 2018, U.S. lost 3,261 dairies. Per the latest data available in 2021, the number of farms that exited the sector is only 1,794 dairies.

Several research papers in prior years have expressed concerns that DMC may provoke additional milk supply (Mark, *et al.*, 2016; Nicholson and Stephenson, 2014; Raghunathan, 2014). However, in the aftermath of pandemic disruption of the dairy supply chain, many dairy buyers have introduced supply management plans that help them align the growth in milk supply with growth in demand for their dairy products. As such, I do not believe that DMC will cause oversupply, even if rules regarding updates to individual production history were further relaxed.

By and large, DMC appears to be effective in accomplishing the legislative intent. DMC payments substantially stabilized net farm income for dairies with herd sizes up to 250 cows, and consolidation pace has slowed down. Fixed coverage levels and premium rates keep this program simple and affordable to dairy producers, however

those same design choices may reduce program effectiveness if inflationary pressures persist.

Federal Milk Marketing Orders

Federal Milk Marketing Orders (FMMO) are one of the primary dairy policies in the United States (Bozic and Wolf, 2022). FMMOs are often portrayed as a Byzantine set of regulations that cannot be explained easily. In fact, central premises of FMMOs are common sense and easy to describe. First, FMMOs start from the assumption that the fair commodity value of farm milk can be derived from wholesale prices of commodity dairy products, net of processing costs and reasonable returns to capital invested in manufacturing capacity. If a dairy plant is making undifferentiated, commodity cheddar cheese and dry whey powder, then per FMMO principles, it would be fair to pass most of the revenue from sales of those products to dairy producers. Processors thus get a stable profit margin, and producers get a major share of the wholesale value of dairy products. In contrast, if a processor is making a branded, differentiated product such as aged cheddar cheese mixed with Italian herbs, then the processor has added substantial value above and beyond commodity products, and most of that added value and risk associated with uncertain additional revenue should be kept by the processor, other than unregulated milk premiums needed to attract sufficient milk supply. Another principle of FMMOs is that beverage milk is a superior food that should never be in short supply, and fluid milk manufacturers should never be able to use their market power to pit one dairy producer against another to reduce the input cost, and thus increase the spread between wholesale price of beverage milk and farmgate price of raw milk.

The way these principles are implemented in practice is through establishment of geographically bounded Marketing Orders and requiring milk processing plants converting raw milk to beverage milk products to participate in the Marketing Order. For all other milk processing plants, participation is voluntary, incentivized by the prospect of sharing in revenue generated through sales of beverage milk products. The desired outcome is that all producers in a certain geography get at least the market-average commodity value of milk, referred to as the uniform milk price.

FMMOs start from a set of farmer-friendly ideas and have been successful in regulating orderly marketing of milk, which is why they have persisted as a collective bargaining institution for almost a full century. In recent years, FMMOs have somewhat lost their luster due to declining sales of beverage milk products. In late 1990s, when the last major FMMO reform was passed by Congress, beverage milk share of all-milk regulated under FMMOs was higher than 45%. In recent years, that share has fallen to less than 30%. In my opinion, in regions other than Northeast and Southeast, fluid milk sales no longer provide strong enough incentives for dairy manufacturers to choose to stay consistently regulated under FMMOs.

In 2018, upon the request of the National Milk Producers Federation and International Dairy Foods Association, Congress modified the formula used to calculate the price that fluid milk processors must contribute to FMMO pools. The reason for the change was to facilitate hedging of raw milk purchases by non-traditional fluid milk processors, such as large restaurant and coffeehouse chains (Bozic and Gould, 2019). The hope was that such a change would increase fluid milk sales, and thus increase FMMO benefits to dairy producers. Prior to 2019, when the change took effect, fluid milk skim price was based on the higher of the commodity value of skim milk in cheese and whey (Advanced Class III Skim Milk Price) and the commodity value of skim milk in nonfat dry milk powder (Advanced Class IV Skim Milk Price). Since May 2019, the formula is changed to be equal to the average of Advanced Class III and IV Skim Milk Price plus \$0.74/cwt. The change would result in a higher milk check to dairy producers whenever the difference between Advanced Class III and IV Skim Milk Prices is less than \$1.48/cwt. From January 2000 through December 2018, this difference was lower than \$1.48/cwt over 60% of months and never higher than \$6.77/cwt. To simplify, for as long as prices of cheese and milk powders would move in the same direction and with approximately the same intensity, there was little to lose, and potentially much to gain from the fluid milk formula change. Unfortunately, the pandemic affected cheese and milk powder markets in a profoundly different way. By May 2020, all dairy product prices collapsed due to COVID-19 lockdowns, and the June 2020 Base Class I price (based on mid-May dairy product prices) was higher under the new formula than under the old formula. However, Federal Government intervention through Farmers to Families Food Box Program dramatically increased cheese prices, while milk powder prices were not affected. From July to December 2020, in all months other than October, the spread between Advanced Class III and Class IV Skim Milk Price was much higher than the historic record spread observed prior to December 2018. The new

formula resulted in substantially lower milk checks and a widespread sense of injustice among producers in fluid-heavy areas. Consequently, some producer groups have started demanding the return to 'higher-of' formula in force prior to 2019. There are several broader aspects of this issue that should be considered in future reforms. First, lack of wide public debate on proposed reforms increases odds of a fragile or flawed policy design, and lack of grassroots support for the mechanism in changing markets. FMMOs have a comprehensive protocol for instituting changes through an industry hearing process. Legislative changes are necessary only for changes that cannot be done through a hearing. The Class I milk price formula can be modified through a hearing process. Second, low elasticity of supply combined with low elasticity of demand for dairy products virtually guarantees that milk prices will have high volatility. To the maximum extent possible, the next farm bill should not make risk management less effective, either for dairy producers or dairy processors.

Finally, no reform can be considered complete unless it fully contemplates the long-term trends in U.S. dairy markets. My estimates are that over the next 10 years, the share of U.S. milk production utilized in beverage milk products is likely to fall further, from 18.3% in 2022 to 14.5% by 2032. Last year we crossed a major milestone: U.S. is now exporting more milk solids than are used for beverage milk products. Going forward, dairy exports will be critical for maintaining profitability. Recent estimates are that over the next decade, 45–60% of all add additional skim solids produced due to improved cow productivity will need to be exported (Bozic and Blimling and Associates, 2022). If our regulatory framework remains centered on prescribing minimum prices for milk consumed domestically in beverage milk products, it will be increasingly irrelevant for majority of U.S. regions where milk is primarily used in manufactured dairy products. The ultimate question we must ask is the following: Do Federal Milk Marketing Orders suffice, today and in the future, to deliver fair milk prices to dairy producers? I lack the confidence to answer this question in the affirmative. The critical missing ingredient is vibrant competition for farm milk. Whereas just 6 or 7 years ago, many producers had a choice where to ship their milk, today it is extremely difficult for most producers to switch from their current buyer to another one. One contributing factor is the rise in milk supply which was not matched by sufficient increases in processing capacity. To my knowledge, no current academic research has explored the consequences of these changes on the relationship between producers and their milk buyers. Anecdotal evidence, from conversing with dairy producers, consultants and educators, suggests some presence of anticompetitive behavior by some processors. Some dairy producers have confided to me that when a prospective milk buyer was willing to take them on as a patron, their current milk buyer stopped that from happening, by calling the prospective milk buyer to inform them of repercussions if such a transfer were to take place. Farmgate milk price discovery is also challenged by the lack of competition. If a corn producer wishes to know how different local elevators would pay for corn, all he needs to do is go online or tune in to his local radio station. Dairy producers used to be able to "shop around" and ask various processors what they would pay for their milk. Recently, when some dairy producers have asked for milk price benchmarking information from their educators or consultants, those service providers have in multiple instances faced tacit disapproval or even aggressive legal threats from some dairy processors. We should not rush to generalize from such anecdotal evidence, but in my opinion, it would also be prudent not to ignore it. Further research, and an honest debate on competition in dairy is merited.

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The CHAIRMAN. And thank you very much to all of our witnesses. Excellent testimony. Thank you. At this time Members will be recognized for questions in order of seniority, alternating between Ma-

majority and Minority's sides, and you will be recognized for 5 minutes each in order to allow us to get in as many questions as possible. And, as always, please remember, keep your microphones muted until you are recognized so we don't have that noise interference. And let me start with my questions.

Mr. Forgues, I hope I pronounced that okay.

Mr. FORGUES. It is *Forgues*.

The CHAIRMAN. *Forgues*?

Mr. FORGUES. Yes.

The CHAIRMAN. Thank you. I appreciate it. And Ms. Leshner, I want to—and others on the Committee, I am very concerned about the tremendous loss of our family farms, and you all touched upon it, and I want to ask—and others—because we on this Committee are very concerned about this issue. For example, we are losing 17,000 family ranching farms every year. 17,000 ranching farms, in the dairy industry itself, as you pointed out in your testimonies, we are losing record numbers. And so we on the House Agriculture Committee are putting together a bill to address this issue, to give a helping hand, because if we don't, our entire agriculture industry is going to be at stake. And small family farms are the heart and the soul of our agriculture system, and so we are moving to very rapidly put in a bill that will give our small family farms a helping hand, and this is shared on both sides of the aisle, both Democrats and Republicans. And so, just tell me, what do we need to do, from your all's perspective? And I will start with—let us start with ladies first. Go ahead, please.

Ms. LESHER. Thank you very much. I appreciate the question, and so, like every small business, we have challenges, some of which would be labor, some of which would be technology, access to broadband, things like that. Farms are generational, and they truly are the backbone of our communities, and I think things that we need to look at is the labor issue, and how we can do that—creating a more level playing field for pricing across the board that takes into account all the costs that farmers pay, because we pay freight coming in, and we pay the freight going back out, so we do get hit exceptionally hard on costs of inputs, and trying to make use of the best technologies. Things that could help us in those regard I think would be wonderful moving forward.

The CHAIRMAN. Thank you. And Mr. Forgues?

Mr. FORGUES. Thank you, Chairman Scott. You hit on something that, for myself has been a life's work, mostly since I was born in the 1970s, and then in the 1980s went through the whole crisis of being a young child on a farm, and watching agriculture being destroyed across the country. The farm town that I am from had 21 dairy farms when I was young. We are down to three.

The CHAIRMAN. Jeez.

Mr. FORGUES. Two of them that are organic, and one of them that has gotten larger and is conventional. I can't emphasize any more that our farms—and, of course, we are in an organic system, 1,800 families, 34 states—we just barely finished our visits with our regional meetings, where farmers can come in, discuss what is going on. We do that twice a year. And we met across the country, and what we are seeing with this elevated cost of inflation, and what we are seeing with the cost of feed, or just the availability

of feed, because of the climate changes we are seeing, doesn't matter why we are seeing them, but it is extreme out there, and that is causing even availability of feed to be a crisis setting situation. How can we do more?

And I think this is where we all need help, because ultimately, the big question our farmers are saying is well, let us charge it to the marketplace. Well, the marketplace is dealing with absolutely everything else that we are dealing with, right? Everyone is buying gas at very expensive costs, and then increased inflationary costs. Are they going to be able to accept premium cost for the addition on top of their premium half gallon of milk, right? And so that is probably not realistic in these current conditions, we have to find other ways, so I would strongly encourage us to focus the farm bill on areas of resiliency. How to help farmers be more resilient, and how to pay them for things that are—maybe not just for making milk on their farms, but for climate work, for energy work, and such. I would strongly encourage farm resiliency. Thank you.

The CHAIRMAN. And thank you. Well, we are moving on this, and we hope to get this legislation together, because it is an immediate problem, and we are working on it. Hopefully we will be able to get a bill introduced within the next week or so. And now, with that, Ranking Member, I will recognize you for your questions.

Mr. THOMPSON. Thank you, Mr. Chairman. Thanks to all the witnesses. Ms. Leshner, in your testimony you referenced the asymmetric risk facing producers under the current Class I mover formula. Could you go into a bit more detail on this risk, and can you elaborate on where NMPF is in the process of developing any recommendations for the mover?

Ms. LESHER. Yes, thank you very much for the question. So, there is a ceiling on how much better the new mover can perform compared to the old mover, and that ceiling is at 74¢ per hundred-weight, which would occur when the Class III price and IV price are identical, but there is no floor on how much worse it can perform. We saw that play out when the Class III and Class IV prices widely diverged in 2020. Dairy farmers lost roughly \$750 million in Class I skim revenue relative to that old mover. The new mover will often track closely with the old mover, but it won't even exceed it by much, so it didn't bring in the revenue anticipated to make up for it when it generated significant losses. So today the new mover has hardly recouped any of the roughly \$750 million that was lost. That makes these losses effectively permanent, which runs completely contrary to the intent of the 2018 agreement, which is not sustainable long-term.

Mr. THOMPSON. Thank you for that, appreciate it. Mr. Durkin, in your testimony you discussed the need for more relevant and accurate cost of production studies that can form many changes to the make allowance. I know there is a desire to make reporting costs mandatory. Do you think this will be a burden to processors, or would it be an easy lift to include these figures alongside what is already being reported for the current pricing formulas?

Mr. DURKIN. Yes, from our perspective, we look at this as not a burden at all, particularly initially after—once you get the data arranged—set up that, on an annual basis, it could be published and reported on an annual basis with limited issues.

Mr. THOMPSON. Thank you. Dr. Bozic, one thing that concerns me about DMC is the number of operations that did not sign up for the 5 years of coverage and receive the 25 percent discount on their premium, instead have elected to decide whether to participate in DMC on an annual basis. Can you talk about the risks of trying to guess the market like that? Current enrollment in DMC is around 72 percent of farms. What can be done to encourage the other 28 percent to sign up?

Dr. BOZIC. That is a nice—excellent question. The—2020 is the best year, when folks—some folks did not sign up for DMC. They thought it is going to be a good year, but 3 months in, all of that went out the door, and we had a black swan event. In my outreach programming for dairy producers in the upper Midwest, and really nationally, I always say that any time spent thinking about enrolling in DMC is time best spent on something else, because 9.50 coverage, it should be the default choice for dairy producers. The 25 percent discount is a great deal for 5 year coverage, and I hope that that is again available in the next farm bill.

Mr. THOMPSON. Thank you. This question actually is for Ms. Leshner and Mr. Forgues. As members of dairy cooperatives, can you speak to the importance of the cooperative structure in the dairy industry? And, as a producer, what are the benefits that you see from being a member of your cooperative?

Ms. LESHER. I guess I will be happy to answer that first, thank you so much. So, we have been a member of a co-op since my husband and I took over the family farm in 1989. We look at it as a real asset. I know my milk will be picked up, I know I will get paid on a prompt, fair basis. As we learned when our—unfortunately, our—my neighbor shipped to Dean Foods, they did not have that ability. So, co-ops provide a lot of security for dairy farms, and they do work on our behalf to enhance our farm in many ways. They provide a lot of technical support as well. So, it is a real asset to be a member to a cooperative.

Mr. FORGUES. Yes, I would add that, for us, it has given the opportunity for our farmers to be heard. I think that we go out of our way to make sure that farmers are given the ability to be engaged, and we listen to our farmers. As with Farmer 100, I always felt that—the importance of being heard. Doesn't mean you always get your own way, and trust me, with 1,800 families, not everyone is going to be happy all the time, but being heard, and being part of the equation to make things better, especially when you are trying to do something like us, which has been on a stable pay price for 34 years, and working our way slowly up, and holding stability, when you are doing something like that, it is really important to have the ability to be together and cooperative.

Mr. THOMPSON. Well, thank you all for your responses. Mr. Chairman, I would ask unanimous consent to submit for the record, and then submit to our four witnesses some very thoughtful questions that were put together by a grassroots Pennsylvania Dairy Advisory Committee. I appreciate the hard work that those folks do on the dairy issue.

The CHAIRMAN. Without objection.* Ranking Member.

Mr. THOMPSON. My time has expired.

The CHAIRMAN. Okay. Next we go to, excuse me, the gentleman from California, Mr. Costa, who is also the Chairman of the Subcommittee on Livestock and Foreign Agriculture, is now recognized for 5 minutes.

Mr. COSTA. Thank you very much, Mr. Chairman. I think we have had a good hearing, and I think we have—my sense is—have a lot of bipartisan support for a number of the issues that we have discussed this morning affecting—well, California, but America's dairy industry that is so critical, because we all agree that food is a national security issue, and the challenges facing dairymen and -women have been well discussed here today.

Mr. Durkin, you talked of your three points, the healthy fluid milk program and expanding it in the next farm bill. I think there is bipartisan consensus under the SNAP Program to do that. I asked the question about permanent extension on the risk management tool, and I think there is bipartisan support on that effort as well. And the third point about updating the make allowance, you just referenced to the Ranking Member that that is not a challenge, and we ought to update this information in terms of regulating price formulas, and if we don't have current information, knowing the volatility that we have seen in milk markets here in recent years due to the pandemic, and other factors, it must be a part of the ongoing effort to allow these safety net programs to be realized.

I want to shift the conversation a little bit, because another factor of this pandemic have been the upending of our supply chain efforts, both in terms of feed for dairies, and movement of that feed, but also exportation of our milk products around the world. And I know, as I said in your introduction, 26 percent of Leprino's products are exported. How much impact have you found in terms of potential loss of markets as a result of this supply chain effort, and do you think the recent law that the President signed, legislation that we all supported with Congressmen Garamendi and Johnson, will be an important effort to deal with that supply chain issue?

Mr. DURKIN. Yes. Well, thank you for the question, Congressman, and, on behalf of really the entire industry, I want to thank you, and Chairman Scott, and really everybody on the House Agriculture Committee for your support on this bill, for the Ocean Shipping Reform Act (Pub. L. 117-146). We truly appreciate that, and it is going to make a difference, and it already actually has started to make a difference, so we appreciate that support.

Things are definitely better, but nowhere near where they need to be for sure, we are still struggling a little bit with certain—

Mr. COSTA. Have you lost market share in the last year?

Mr. DURKIN. Yes, we have lost in market share, particularly in China, I would say, from an international standpoint. It is—one is consistency and reliability of goods. I know I testified to that back in November, so we have seen some share in certain markets go

* **Editor's note:** the responses from the witnesses to the information referred to are located: Ms. Leshner, on p. 1206; Mr. Durkin, on p. 1208; Mr. Forgues, on p. 1212; Dr. Bozic, on p. 1215.

down. We have been able to maintain it in others, and possibly grow a little bit, but net it has been an extreme challenge.

Mr. COSTA. All right. Well, any suggestions you may have for all of us would certainly be appropriate and appreciated. Mr. Forgues, you talked in your testimony about sustainable solutions in the dairy farmer's toolbox, and I have been very involved in California on how we deal with management of not only wastewater, but also manure management programs, and you noted that in your testimony to deal with greenhouse emissions. You are aware, I am sure, of the 114 projects funded in California that has reduced greenhouse gas emissions by an estimated 1.1 million metric tons of carbon dioxide over 5 years. How could we expand that kind of effort nationwide, and how we might do it in the reauthorization of the farm bill?

Mr. FORGUES. Yes. Thanks for the question, Representative Costa. We have dairy farmers in California that have used the Alternative Manure Management Program, which is really about incentivizing farm systems to reduce methane emissions, but it is also creating better soil amendments for cropping. Some of the changes we see are putting in place a solids separator—yes, and that is what it sounds like—and then developing composting systems with that manure.

Mr. COSTA. I'm very familiar with the details, my friend. I am wanting to know can we expand that in the reauthorization of the farm bill to provide those benefits nationwide, and have you determined what the potential expansion of that would be nationwide if we followed in the example that we know in California?

Mr. FORGUES. Well, we would applaud the program being implemented—or we applaud the program that's being implemented by the State of California. In our opinion, you could really take what California is doing and see if it is something we can offer nationwide as an option in the next farm bill.

Mr. COSTA. Thank you. Mr. Bozic, I only have a little time left, but you talked about competition with dairies, and you talked about being able to move on contracts. In California—the milk pooling effect went into effect, dairy contracts are critical. How do you think we bridge that gap with so many belonging to co-ops? 56 percent of the milk produced in America is from members of co-ops.

Dr. BOZIC. A few seconds only for this answer. I believe that you should look for industry to provide proposed solutions. It is the role of academics to elevate issues for debate, to analyze proposed solutions, to project trends, *et cetera*. But when it comes to solutions, I don't think that it is up to us in academia to be the priests from the ivory tower church. We need to look for industry to come forward with proposed solutions, and then we can analyze them. I do believe that we will see a vibrant debate on this in the months to come.

The CHAIRMAN. Thank you very much. The gentleman's time has expired. And now the gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. Thank you again, Mr. Chairman, and thank you to our second panel for appearing with us today to help educate us on how to best move forward in this new farm bill with regards to dairy. I wanted to, with Mr. Durkin here, go over just some of the

nuances you were talking about in your testimony. As we know, market price for milk is based on several factors, such as butter fat, and solids, and other things that I am not greatly an expert on here, but there is a rate set, the rice I grow, for example, at home, what is the milling quality of my rice as it comes out, broke ends *versus* whole kernels, and such like that.

So we all understand that kind of thinking, so you have these input values, and then you also have the costs, the processing costs, and the terminology used is called *make allowances*, so what we are looking at is that data on cost inputs, and why that is important is very reflective of today's costs—or should be reflective of current costs, whatever year it is, of doing business.

And so, in previous conversation and today, what we seem to have is very old data from these cost studies, cost reflections, that are, in some cases, 15 years old, and a more recent one may have been done, and it may be seen as accurate, but right now, with costs changing practically hourly because of energy, because of feed, lack of feed, drought, whatever, it seems to me there needs to be an ability to have a very adept, very nimble way of keeping costs at the forefront so that prices are going to reflect that, and the industry is healthy. So, with inflation the way it is, I am not even sure how you keep that roller coaster somewhat in line, but we would love to hear what ideas or innovations that we could do to keep it reflective of current costs to drill down on that point, how often should the USDA conduct these cost studies to try and have some level of accuracy in the make allowances portion of cost to the industry?

Mr. DURKIN. Yes. I think we would say on a regular basis, obviously, sooner than 15 years, it would be there, so we would advocate, from a Leprino standpoint, to do it on an annual basis. If it becomes too burdensome, from a cost standpoint, from a USDA perspective, or even some plants—or other companies, there may be an indexing that could be done on a basis, so you do a cost study every other year, or every 2 or 3 years, and then you could index some things after that. So that is a—I think a way to get at that. But if you look at—the recent data would suggest there is a—and then we know it is outdated, it would—says there is close to a 30 percent differential from where it was in the old cost study to the new one. And then on top of that reflect the current cost, so it is probably—

Mr. LAMALFA. And which years of the two?

Mr. DURKIN. Excuse me?

Mr. LAMALFA. Between the 15 year old one and the more current one is—

Mr. DURKIN. Correct.

Mr. LAMALFA. And how about from the one that is most current and, say, today, with—

Mr. DURKIN. Yes. If you were add that too, in excess of 40 percent.

Mr. LAMALFA. Forty percent between the last one and the one that isn't done?

Mr. DURKIN. Correct.

Mr. LAMALFA. Wow. That is tremendous. So you feel if you did a current deep dive, after that it could be kept up with a less complex indexing?

Mr. DURKIN. It could be, and I think that is a way to look at that. I think there is some conversation with industry, as well as the House Agriculture Committee, to talk about what makes the most sense, but—we would be happy with an annual, but if that becomes too burdensome from a cost standpoint as well as—I think there is a—maybe a simpler way to get at that as—

Mr. LAMALFA. Well, do you think that would be a burden on producers, or on USDA products?

Mr. DURKIN. Actually, maybe both, and I was speaking specifically on USDA.

Mr. LAMALFA. Yes. Okay.

Mr. DURKIN. It would not be burdensome from our standpoint as a company.

Mr. LAMALFA. Yes, and probably for other producers as well, similarly, so—

Mr. DURKIN. Correct.

Mr. LAMALFA. So, we just really have to get a reflection from USDA is it something that they could be doing annually, and how we could streamline their ability to do that?

Mr. DURKIN. Yes.

Mr. LAMALFA. Okay. So, these cost studies in the past were only participated, as you mentioned, by about $\frac{1}{3}$ of the plants, and so do we need to have—well, I am sure it is skewed at that level. How do we have a—maybe a 90, 95 percent? Does it need to be requirement? How would we do that?

Mr. DURKIN. Yes, I would—we recommend it be a requirement, and I know that Dana Coale, who spoke before us, also put that out as well. So, we are required to submit prices to USDA. I would think that, as a requirement to submit prices, you are actually going to also submit your cost data as well.

Mr. LAMALFA. Okay. What is the labor situation look like? We worked on the Farm Workforce Modernization Act, and I will—in a word.

Mr. DURKIN. Listen, labor is a challenge across the board.

Mr. LAMALFA. Yes.

Mr. DURKIN. Not only at the farm level, but up through processors, and I would argue the entire supply chain. So if one cog in the wheel is working, but you don't have the others going, whether that is transportation, rail, shipping, farm, or processor, we—the labor is an issue across the board.

Mr. LAMALFA. Got to do it. Thank you. Thank you, Mr. Chairman. Thank you.

The CHAIRMAN. And now we will hear from the gentleman from Georgia, Mr. Allen, is now recognized for 5 minutes.

Mr. ALLEN. Well, thank you, Chairman Scott, and I want thank Ranking Member Thompson, Members of the Committee, for gathering today to discuss these important issues. And I want to thank our witnesses for sharing your insight on these important topics. Frankly, I hear this over and over again in the 12th District of Georgia, and we can't anticipate a lot of these things in writing the new farm bill because the last time we have had this kind of infla-

tion, and supply chain issues, and whatnot was the early 1980s, and, of course, we know what happened to the family farm in the early 1980s. It was probably the biggest crisis we have had until now, and we lost a lot of farmers in early 1980s.

So, what provisions do you make in a farm bill when these things happen? So that is 30 years ago, and so, of course, what I am hearing from our crop growers is input costs. I had a roundtable Friday afternoon, and they just had no idea. I mean, they don't know what things are going to cost next week. And the EPA is severely limiting them on fertilizers, and things that they need, and I know that you mentioned organic, and you are trying to do things a little different there, but, to get the kind of yields that we are getting in agriculture in my district, we have about two percent of the population in this country producing, what, 120 percent of the food needs.

And, of course, I grew up on a dairy farm, and my dad elected not to go production ag. They wanted him to go to 200, 300 cows, the processors, and he had to put the place up, to borrow the money, he had to put the place up as collateral, and he wouldn't do it. My dad went through the Great Depression. We paid cash for every car and everything he ever bought, and so he refused to do it, and in hindsight it was a really good move, because it was a tough situation.

What I asked our roundtable on Friday was, okay, what are your suggestions, we have a fossil fuel crisis, we have a climate crisis, you name it, it is going on out there. So I would almost like to go down the panel, you all work hard, you have plenty of common sense. What do you all think needs to be done in this country right now to get us right side up? Because, what we are doing right now is unsustainable, particularly when you are talking about the farm bill, and funding some of these input costs and other things. So—we will start on this end, and go to there, and I will give the rest of my time to you all, and you tell me how we solve this thing.

Dr. BOZIC. Representative Allen, on the Dairy Margin Coverage we can introduce energy index, or we can increase the maximum coverage level from, for example, 9.50 to 10. That is Title I. In Title XI, in crop insurance, we can design Livestock Gross Margin, which is also a program that I help maintain, so that it allows increased emphasis on feed or non-feed costs as well. They don't have non-feed costs in that part as well. On the climate, and new—and the—mentioning the loss of family farms, I would encourage the House Committee to look at helping small dairy farms meet the standards that the processors will require over the next 5 to 7 years as far as sustainability. It may be more difficult for some of them to meet that, and I would hate to see an increased consolidation pace because of the additional sustainability standards.

Mr. ALLEN. Okay. We are—I have 40 seconds, so you all are going to have to go quick.

Mr. FORGUES. Well, I will just—I wanted to add, Representative Allen, that you mentioned input costs are maybe different in the conventional setting than the organic setting. I just want to let you know that our organic farmers would tell you the input costs are rising everywhere, so whatever we are trying to do when we are dealing with these kind of inflationary costs are going to need to

be addressed for all farmers, because it is hitting everyone, and just wanted to make sure you knew that.

Mr. ALLEN. Yes, sir. Thank you.

Ms. LESHER. So I appreciate the confidence in us, thinking we would have the answer, because it is—I wish we all did. But, work on the DMC to extend the cap so that more milk is covered, because we have losses on all the milk, not just the first 5 million pounds that we produce. I also think we need a handle on labor, having access to guestworkers and things like that. We need access to technology. Assistance in buying technology, and getting involved with technology, is a big thing for us, and costs.

Mr. ALLEN. Okay. Great.

The CHAIRMAN. Thank you.

Mr. ALLEN. I yield back.

The CHAIRMAN. The gentleman's time has expired. And now the gentleman from California, Mr. Carbajal, is recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman, and thank you to all the witnesses participating on today's panel. Mr. Forgues, can you tell me some of the benefits of organic health to consumers, and what about benefits to the environment?

Mr. FORGUES. Thank you, Representative Carbajal. We are very excited about what we are seeing—I will start with the environment first—we are seeing opportunities to make a healthier environment, and we are spending a lot of energy right now within our cooperative to set up a system that is a little bit different than anything we are seeing out there that is talking about carbon reductions as insets within our organization. We are hoping to incentivize our farmers by paying for carbon sequestration that they are doing on their farms, and helping them get money and support to then leverage with—let us just say EQIP and NRCS to do more and more projects to help raise our goal of being carbon neutral by 2050 without buying offsets, by really doing it on our farms. And we are going to offer that opportunity for other partners of ours, and customers, to join in with the work we are doing. I think it is really vital that as that process moves forward, that we all look at ways, and we can find ways, to make our environment better.

As for the health for consumers and customers, we continue to tout the work that we are doing. Healthy cows, healthy soil, leads to healthy products, that leads to healthy people, and we are very excited to be able to offer that opportunity to the public. Organics is not a religion, it is a production method, and we are happy to be able to give that opportunity to consumers through the production methods that, if they want to be able to have a certified organic product, it is available to them. We look forward to being able to continue to show those benefits to the environment, and to the general population, through studies, and through other work we are doing.

Mr. CARBAJAL. Great.

Mr. FORGUES. Thank you.

Mr. CARBAJAL. More on that, what kind of resources does the organic dairy industry need from Congress to continue to operate?

Mr. FORGUES. I think that there is a really big opportunity to start talking about research and farm resiliency. Again, that is a mantra I am going to continue to drive home. There are ways to help better farms, better the farmers' livelihoods and income that might not just be about supply and demand of dairy, because it is so important, right? No one is thinking that it is just about a farmer and their milk check. It is that community piece. It is rural livelihoods that are on the line here, and rural economies. And so we have to find ways to make the farms more resilient, and that may mean finding other ways to provide income streams, which I think is exciting, because it also can help our environment, help our energy issues, and so I think the Federal Government can do a lot by putting money towards those programs, and it helps our organic farmers, but I think it helps every farmer if we are able help small family farms become more diverse and more resilient on their farms.

Mr. CARBAJAL. Thank you. Dr. Bozic, can you expand on what—some of the reasons behind U.S. milk production utilizing beverage milk products is projected to fall over the next decade?

Dr. BOZIC. Lower fluid milk sales, and more milk going to manufacturing. So our per capita consumption of milk has been falling steadily for decades. Recently the gains in population have not been high enough to offset that, so the total volume of fluid milk is trending down for the last about 10 years. In the meantime, we consume more cheese domestically on a per capita basis, but we also are—when we are exporting, we are exporting storable or semi-storable dairy products. 15 years ago we only exported about five percent of U.S. milk production. We are about to be 20 percent of U.S. milk production very soon. And, going forward, exports are going to be critical. So exports and manufacturing dairy products up, fluid milk sales down, and, as a result, percent of milk utilized in beverage product will fall.

Mr. CARBAJAL. Thank you. To that end, what do you see as the biggest challenge to smaller dairy producers? Do you see a place for them in the industry in the future, or will consolidation continue to the point there are no more small dairy producers?

Dr. BOZIC. Dairy Margin Coverage was truly a momentous change that I believe substantially reduced the pace of consolidation in the dairy industry, and did—will afford dairy producers over the next—smaller dairy producers over the next decade to be financially viable. The new emerging challenge may be sustainability standards that are coming up—that will be required by the buyers of dairy products to dairy processors, whether they are private or cooperatives, and then cooperatives will have to ask their members to—and private processors will have to ask their patrons to oblige with—and if such technology is more financially viable on larger farms than smaller farms, that may, again, increase the consolidation pace.

Mr. CARBAJAL. Thank you.

The CHAIRMAN. The gentleman's time, unfortunately, has expired. Now the gentleman from Indiana, Mr. Baird, is now recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman and Ranking Member. We really appreciate all the witnesses here, and the expertise that you

share with us, because you are on the front lines and the cutting edge of the industry, and agriculture is so important to our country, as well as the district I am from in Indiana. And so, my first question goes to Ms. Leshner. And I know dairy farmers have endured significant volatility in recent years, especially during this pandemic. Could you share with us, because I think it is important for us, as a Committee, to understand the role these cooperatives play in helping farmers through these tough challenges? Go ahead.

Ms. LESHER. Thank you for the question. I think that one of the benefits of a cooperative is the fact that they share information with their membership. They help us encourage people to participate in programs like DMC, sign up for that safety net. I call it an insurance policy. The co-ops have been able to help sustain, and of—and, again, as I mentioned earlier, I know I am going to get a milk check every single month. When I ship my milk, I know they are coming to pick it up, I know it is going to—I will get paid for it, so they offer a lot of stability, and they offer a lot of technical expertise to our family farms.

Mr. BAIRD. Absolutely, and that hasn't changed over the years, has it? That steady income is pretty important to the viability of those farms, including dairy farms. My next question goes to everyone. I understand they are calling for the Dairy Forward Pricing Program to be permanent in the next farm bill reauthorization, so do any of the witnesses have thoughts on that proposal? And, as a follow up, would it be supported by all sectors of the dairy industry? So, feel free to go ahead. Ms. Leshner, we will start with you.

Ms. LESHER. I am sorry, I missed part of the question. The dairy—

Mr. BAIRD. The Forward Pricing Program. There is a call for that to be included in the next farm bill—

Ms. LESHER. Yes.

Mr. BAIRD.—and so I want to know what your thoughts are about that, and I want to know about whether or not all the sectors of the dairy industry would support that.

Ms. LESHER. So it was an additional risk management tool for dairy farmers, something that was new to us, and we are still learning how to navigate through the system, but I think anything that will be in place to help mitigate risk is definitely something we need to continue.

Mr. BAIRD. Yes. Mr. Durkin, how about you?

Mr. DURKIN. Yes, we are fully supportive of the program. And to your question, does it have support, and our mind and our understanding is that it has universal support across the dairy industry, so we think it just makes sense. The challenge is, you think about it, it expires at the end of September, so the ability to go beyond September, before the farm bill is actually approved, farmers aren't going to be able to hedge anything, and really, when you go 6 months out, you start to—the validity of the program starts to fall apart, so that is the—really the need to make it permanent.

Mr. BAIRD. Good information. Thank you. Mr. Forgues?

Mr. FORGUES. Yes, thank you for the question. I don't believe that there are any issues on an organic level that we shouldn't have everyone involved with risk management tools. The more tools, the merrier. I think we have to find ways to take risk out

of the very complex piece of dairy farming, so we would be supportive of that as well.

Mr. BAIRD. Thank you. Dr. Bozic?

Dr. BOZIC. Thank you for the question. I am not aware of any farm groups that would oppose this proposal.

Mr. BAIRD. Well, thank you very much, and I yield back.

The CHAIRMAN. The gentlewoman from Minnesota, Ms. Craig, is now recognized for 5 minutes.

Ms. CRAIG. Well thank you so much, Mr. Chairman, and thank you to the Ranking Member, Mr. Thompson, for today's hearing on the farm bill provisions. It is a critical topic in the farm bill, given the many benefits that the dairy industry provides to folks across the country. Minnesota's Second Congressional District is home to more than 350 dairy farms, and more than 45,000 milk cows that account for more than \$200 million in annual sales of dairy products. The family farmers on the dairies across the district are a key part of our rural economy and communities.

Over the past year, I have had the privilege of visiting family dairies in my district, like Zweber Farm in Elko New Market, and the Buck Family Dairy in Goodhue. I have heard a lot about the challenges facing the industry, and the ways in which Federal programs are impacting those operations. One of those programs is, of course, the Dairy Margin Coverage Program, and I first want to turn to Ms. Leshner. Ms. Leshner, in the 2018 Farm Bill it enacted the Dairy Margin Coverage Program, which I know has been just an important safety net to producers in Minnesota. Can you talk a little bit about what factors you weigh, and how you decide to sign up for the program each year?

Ms. LESHER. Thank you very much for the question. So, on our family farm, it is a no brainer to sign up for DMC. I mean, it is like an insurance policy. It is one of those things you invest in, and you know it is there if you really need it. You hope you don't. We hope our margins are larger than what we are insuring for, and we have always bought in at the highest possible coverage. It is an easy way to help mitigate some of our risk.

Ms. CRAIG. That is incredibly helpful as we start to think about the 2023 Farm Bill. Turning now to another topic which has come up during visits with dairies in my district, and that is the attention that producers are paying to land care and management in response to both increasingly variable weather, and also changes in consumer demand, so I would like to ask this question for each of the panelists here today. Can you describe how your operations are dealing with the more unpredictable weather patterns, and the increasing consumer demand for climate friendly products? I know that these are issues that family dairies in my district care deeply about, and I am curious to hear more about the ways you are working on them as well. So let us start with Mr. Forgues.

Mr. FORGUES. Thank you, Representative Craig. It is a great question that you are asking. I think it is really relevant for lots of reasons. It can be a business relevance because, as we are trying to forecast the supply that we are going to see from farms across the country based on biological systems that are affected by weather. And then at the same time, part of a marketing cooperative that is trying to continue to find ways to represent our products in

a way that is authentic and special in the products that we are offering to the consumer, and to our customers. So we continue to look at farm resiliency, and really dealing with climate in everything we do.

Let us be real, all of us in dairy, conventional, organics, Scope Three emissions is the biggest challenges that we are going to have, or at least one of the largest challenges that we are going to have as we move forward. So at Organic Valley right now, like I mentioned, we are already launching into a carbon program right now that really works on insets, and working with our farmers to give them dollars for the work they are doing. I think that the other important piece is really to understand the science of this, and we are deep into the science of what a life cycle analysis of your carbon life cycle is about, and we really think that that is going to be an important key for all of us as we move forward, to really focus on knowing where you are with carbon, and where you are going to move in the future.

Ms. CRAIG. I appreciate that. And I have about a minute left, so, Mr. Durkin?

Mr. DURKIN. Yes. Thank you for the question, Congresswoman. Obviously it is a huge challenge, and we are willing to face that. Obviously we signed on to the Stewardship Commitment as part of the Innovation Center, which is a subset of DMI. This global dairy platform. We honor that as well with the pathways to net-zero. It is a huge challenge. When you think about this—obviously we just talked about it with Travis, about Scope Three, which obviously one and two is our key primary responsibility, but we have to be in partnership with our farmers to make sure we are going to get there. We are seeing huge push from our customers as well, so we are primarily B2B, but our customers that we go to, some of the major food suppliers in the world, it is definitely a challenge that we are going to have to face.

Ms. CRAIG. I am going to give Dr. Bozic the last word, since I haven't heard from him.

Dr. BOZIC. I can only repeat what I answered before, Representative Craig, that Congress should look to the industry for advice on how to make sure that smaller family dairy farmers are not left behind in implementing additional requirements that they will need to meet to stay in business. Some of these technologies work better when you have more cows to spread fixed costs over more head, and we should not—in solving the climate, we should not allow the pace of consolidation to pick up again in the dairy industry.

Ms. CRAIG. Thank you so much. With that, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman from Ohio, Mr. Balderson, is recognized for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman, and thank you to all the witnesses for being here today on Panel two. My first question is for the whole panel. Trade is critical for American agriculture, and the dairy industry is no exception. Ms. Leshner, in your testimony you emphasized the importance of trade for the dairy industry, and how exports account for 17 percent of production. Can any of you discuss in more detail how important the Market Access Program and the Foreign Market Development Program are for the

dairy industry? And who may ever want to go first, go right ahead. Thank you.

Ms. LESHER. I will be happy to answer the question just to get started. Trade is very, very important to the dairy industry, and most segments of our agriculture in the United States. We do need to have some new free trade agreements. We are limited in those regards, we also have some tariffs in place that are limiting what we can do. The challenges of getting through the ports have created some issues, so we do have some things we need to work on to continue to grow our opportunity and maintain a stable income for farmers through exports.

Mr. DURKIN. Yes, I would add to Ms. Lesher's comments that the trade is usually important. I know Dr. Bozic has talked about the amount of dairy solids being exported. We are right around 25 to 26 percent, which is in excess of what it is for the entire dairy industry as a whole in the U.S. We have a huge opportunity in the U.S. to actually capture a large share of the dairy growth on an international market, so clearly the current programs that we have in place are important, but I would emphasize, and I know Lolly talked about it as well, more free trade agreements, more tariff issues, and non-tariff barriers that are out there have to be eliminated for us to capture that. We are in a prime position, as a U.S. dairy industry, to capture that growth, and, absent some of those programs, I think it is going to be a challenge for us to do that, as well as—I know we talked about some of the supply chain challenges as well.

Mr. BALDERSON. Thank you. Did anybody else want to add—is that good? Okay. I had a follow up, but I think you just addressed it very well. My next question is for Mr. Durkin. You mentioned in your testimony the growth in milk product exports from the U.S. How much additional growth in export markets do you anticipate in the coming years, and what impact will this have on the domestic industry?

Mr. DURKIN. We are, exports are up, there is no doubt about that, and that is even despite some of the supply chain challenges we have, and I testified earlier, even with that, we have actually lost some market share in key markets, China being one, and a few others. So it is a huge opportunity, as I mentioned, for—continue to grow, and we need to work together, the entire dairy industry, as well as government, to kind of bring down those barriers, and help with the supply chain issues to be able to handle that. But we are bullish on international shipments, and hopefully some of those barriers will start to ease.

Mr. BALDERSON. Okay. Thank you all very much. Mr. Chairman, I will yield back my remaining time.

The CHAIRMAN. The gentleman from Iowa, Mr. Feenstra, is now recognized for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Scott, Ranking Member Thompson. Thank you, Members. Thank you each one of you for testifying today. This is so important to me, and I want to sort of pivot off what Congressman Balderson stated on exports. I mean, this, to me, is a great opportunity for the United States, especially in the milk industry, or I should say in the dairy industry, to create more opportunity for our producers. Dr. Bozic, you referenced

some of this stuff in your testimony. Can you look at what can we do to create better trade partners? What can Congress do, and what can the Administration do? I get concerned that the Administration is not doing a lot in that trade sphere right now, and I would just like your thoughts on this area.

Dr. BOZIC. Thank you for your question, Representative. We should strictly enforce the existing trade agreements, particularly with our neighbors to the north, and beyond that, we should aggressively pursue new trade agreements that open markets for us in Asia, Africa, and other countries—other regions, where we have the ability to add a lot more exports over the next 10 years. Our two main competitors, New Zealand and Europe, are facing problems. New Zealand discovered they are an island, and Europe is moving towards very, very aggressive climate-related policies that will see perhaps the number of cars in Europe—the number of cows in Europe reduced. That opens huge opportunity for us.

Mr. FEENSTRA. Yes.

Dr. BOZIC. Industry will deliver if market access is there. The primary responsibility of the Congress and the Administration is to expand market access.

Mr. FEENSTRA. Yes. I'm glad you said that, about cows and I know there was a question asked a while ago, I have so many small producers in my area in the Fourth District—we don't need more regulation. We can do things voluntarily, and we have the opportunity to do that, but, my goodness, the last thing we need is more regulatory environment. Dr. Bozic, I also want to also address something that you had in your testimony regarding pricing transparency, and the inability of dairy producers to shop around for the best farmgate milk price. Can you expand on that? Because, to me, this is a very critical component.

Dr. BOZIC. So up until—thank you for the question. Up until about 7 years ago, a producer could reach out to processors in their area and say, if I were to move my milk to you, if I were to start shipping my milk to you, what would you pay me? And then processor will say, well, send me your milk marketing records for the last 2 years and I will tell you. So then they would see what they would get paid over the last 24 months *versus* what they are getting paid from their current milk buyer, and, based on that—that is one of the factors they would consider in where to ship milk. They can't do that anymore. The people are having very hard time moving.

Mr. FEENSTRA. That is correct.

Dr. BOZIC. So if you cannot move, what else can you do? Well, you can at least know where you are *versus* the others.

Mr. FEENSTRA. But don't you think we should take action, I mean, this is a fundamental problem, don't you think?

Dr. BOZIC. I think it is very important.

Mr. FEENSTRA. I agree. I agree 100 percent. Last word, Ms. Lesh. You are in it. You are in this business. What advice do you have for Congress as we move forward in the farm bill, and what can we do when it comes to revenue protections, or just even what are your thoughts in this whole dairy scheme?

Ms. LESHER. So I think costs right now are excessive that that is one of the most limiting capacities. Labor is a huge issue, you have heard me mention that before, and technology.

Mr. FEENSTRA. Yes.

Ms. LESHER. No, but making DMC—the cap on DMC, re-evaluating that, making it larger, because there are losses across the board in—on our farm first million—

Mr. FEENSTRA. There is, absolutely, I am glad you said that. That is exactly right. It is across the board to everyone, that is right.

Ms. LESHER. That is correct, so whatever we can do to help level that playing field, and help make sure that we can recoup as many costs as possible that would be incredibly helpful.

Mr. FEENSTRA. Yes. Well, I thank you, and I appreciate all you do. I thank you for each one of your testimonies, but we have to understand, the dairy industry is the fundamental economic engine of food and our production, and we have this great opportunity, this great asset, to export around the country, and around the world, and I sometimes think we lose sight of that. And we are doing 20 percent right now, or a little more than that, but we have so much opportunity as other countries get away from it, as you noted, Dr. Bozic. So this is my passion, and I fully hope to make recommendations as we move forward in the next farm bill. So thanks to each one of you, and I yield back.

The CHAIRMAN. Thank you. And now the gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. All right. Thank you, Mr. Chairman. As you can see, we kind of came in here sliding hot. There are votes that have been called, and I know we are all trying to hustle, so I will just jump right into it.

Just generally for all of our witnesses here today, one of the main concerns that I hear from farmers of all types—keeping in mind that I represent a state that has not only 300 different commodities and specialty crops, but we also are the Dairy Belt for the Southeast—especially dairy producers, it is the lack of a legal workforce. Now, I know that H-2A is not a good fit for dairy. It is a seasonal program when we need year-round. There are a lot of key fixes. Would you support moving or creating a secondary guestworker program under USDA, separate of H-2A, that gets rid of the adverse wage effect, creates a long-term certainty for employees and employers, and helps solve some of these year-round guestworker issues that we have? I would love to hear just a real quick yes/no from each panelist here today.

Ms. LESHER. Thank you for the question. Yes, we would be very much in support of something that would have a way to answer some of those issues that we have about year-long stability for our employees, so that would be a big help.

Mrs. CAMMACK. Beautiful. Thank you.

Mr. DURKIN. Yes. Well, as a processor, we need our farmer partners to be productive, healthy, and growing, so absolutely we agree.

Mrs. CAMMACK. Wonderful.

Mr. FORGUES. Yes, well, we would love to have labor for our farms, so absolutely.

Mrs. CAMMACK. Wonderful. Thank you.

Dr. BOZIC. As an academic, I don't believe I should weigh in support of a particular proposal, but I do want to say that I believe that it is very important for our country to be based on a rule of law, and that everything is regulated by law, not in the underground economy.

Mrs. CAMMACK. Absolutely. Thank you. I just wanted to make sure we got that on the record. Now, Mr. Durkin, in the 2018 Farm Bill, NMPF and IDFA requested a change to the formula for pricing for Class I milk—obviously, Florida, we are a Class I market—which was adopted by Congress and enacted. The purpose of this change was primarily to remove ambiguity from the pricing formula and to allow processors more certainty as they managed risk in the Class III and IV futures markets. Has the new formula been successful in this regard, and are more processors hedging risk in the futures market?

Mr. DURKIN. I have two questions on the Class I mover component of it, we are not part of that program, given we are basically cheese and whey products, so we'll be in the Class III area, so I will yield to some others on the panel to be able to answer that. We are not currently in the Dairy Hedging Program, and that is—that—but we are fully supportive of the program. IDFA is, and the only reason we are not is we are—we buy our milk and sell all our components, so, in fact, we are fully hedged, so—but we are fully supportive of the program, as—in my testimony to that as well, and you have both IDFA, National Milk, everybody is supportive, so we think it is the right thing to do.

Mrs. CAMMACK. Thank you for that. Ms. Leshner—is that right?

Ms. LESHER. Yes.

Mrs. CAMMACK. In my district we have a multi-generation family there, and they are the Leshers, so kind of close. As you know, USDA created the Pandemic Market Volatility Assistance Program to compensate producers for losses relative to the old “higher up formula” for the Class I mover. Can you comment on that program, or any additional work being done to address uncovered losses?

Ms. LESHER. So, we appreciate that question very much, and we appreciate the assistance that the Pandemic Market Volatility Assistance Program offered to dairy farmers. We have not totally recouped all the losses that we had a result of the Class I mover changing. Nobody anticipated what would happen happened.

Mrs. CAMMACK. Right.

Ms. LESHER. We have not gotten there yet, as far as recouping those losses, but hopefully that can be addressed at some time.

Mrs. CAMMACK. We are looking forward to trying to rectify that, so I appreciate you weighing on that. Dr. Bozic, in your testimony you discussed the declining share of demand for fluid milk. In fact, I believe you state that we are now exporting more milk solids than the U.S. drinks. As this trend continues, how do you think it will impact the industry generally, and milk pricing in particular?

Dr. BOZIC. Congresswoman Cammack, for your district I think Federal Orders will be extremely important for the foreseeable future, very relevant as well, and I believe that some big milk buyers would exert more market power on cooperatives and dairy producers in your region were it not for mandated prices for Class I, so I am fully in support of Federal Orders there. Unfortunately, for

a majority of the country, where milk is used in manufactured dairy products, Federal Orders will become increasingly relevant, and that is the part of my testimony in which I have been—build further in my written remarks.

Mrs. CAMMACK. I appreciate that, thank you. My time has expired. I yield back.

The CHAIRMAN. The gentleman from South Dakota, Mr. Johnson is now recognized for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman, and I will start with Ms. Leshner. I know we talked a little bit about markets, and about the farm bill, and specifically what can be done with the two programs to help expand trade. We didn't talk in a lot of depth, so, Ms. Leshner, as we look to the next farm bill, are there any particular tweaks, or expansions or changes we should be looking to make to help you all find new markets abroad?

Ms. LESHER. So thank you very much for the question. Yes, I do believe there are some tweaks we need to do. Some of it would be some of the trade barriers that we are facing, some of the lack of free trade agreements, not following the ones that we have at this point in time, and then—and really endorsing those. And another thing would be the use of common names. So, there are some things like—whether it be parmesan or bologna, things like—the common name usage, we need to address that situation so that those products can be marketed globally without so much of a drama.

Mr. JOHNSON. And so as we talk, ma'am, about making sure that the execution of these deals is as good as what the deals say they should be in paper, I know Canada was a little slower to make good on their commitments, their new commitments out of USMCA. In your assessment, where are we at today, and are we getting closer to the target?

Ms. LESHER. I will be honest, I really don't know specifically on that issue, but I am sure National Milk would be happy to get back to you.

Mr. JOHNSON. Yes, sure, that would be good. And are there any particular market opportunities that you are most excited about? I mean, countries that we should be really putting some lead on the target with.

Ms. LESHER. I think, as we look to South Africa, Africa, South America, other places like that offer tremendous opportunities for us if we could just have access to those markets.

Mr. JOHNSON. Yes, very good. Thank you. And then, for any of the other panelists, I want to give you an opportunity, if you want, to respond to my line of questioning. Anyone?

Mr. DURKIN. Congressman, yes, thank you for the question. There are huge opportunities, and Ms. Leshner talked about one, but I would focus on primarily that—I don't know if it is secondary, but I—we would put it as more primary, and the primary now is the Asia-Pacific region. If you look at—where we have New Zealand as being one of the primary exporters of dairy products in that area, we have a huge competitive disadvantage, really, in just about every country that we compete in, from a tariff standpoint, so that is a big opportunity. And kind of—if we can level the play-

ing field, and we actually still do very, very well relative to them, but it is a challenge we face every day.

Mr. JOHNSON. Yes, and I think somebody last week told me that India used to be a very, very strong market, and now has kind of whittled away to nothing. Is that about right? Am I remembering that right?

Mr. DURKIN. Can you repeat what country?

Mr. JOHNSON. Yes, India. And it may not be for your specific company, but do you think that is true for the dairy industry generally?

Mr. DURKIN. Yes, well, in general it is very difficult to go—import into India just because—given the rules.

Mr. JOHNSON. Yes. Okay. Anything else from any of the other panelists? Thank you very much, Mr. Chairman. I yield back.

The CHAIRMAN. Thank you. And now the gentlelady from Minnesota, Mrs. Fischbach, is now recognized for 5 minutes.

Mrs. FISCHBACH. Thank you, Mr. Chairman. I have been watching the proceedings, and listening, and I really appreciate the panelists for being with us today, and all of the thoughtful questions that Members have asked. And I just wanted to kind of ask, for any of the panelists, as you all know, participation rates in the DMC and its predecessor, MPP, have been a challenge, historically. And, in Minnesota, where I am from, participation rates in DMC have been higher than most of the rest of the country. And are there lessons to be learned in terms of—either incentives marketing, or even mechanics of these programs that can be carried forward into the new farm bill? For any of the panelists, if someone wants to jump in.

Dr. BOZIC. Congresswoman Fischbach, thank you for the question. I work in Minnesota, as you know, and we work very closely with the industry in Minnesota to educate producers about Dairy Margin Coverage, before that Margin Protection Program, as well as Minnesota has always been quite high in the adoption rate. I would like to think that it has something to do with the educational programming that my colleagues at the University of Minnesota and myself have done. Beyond that, as you know, our state also has a state level dairy program, which is additional subsidy for Dairy Margin Coverage. The participation goes down where producers believe that premiums are too high relative to where markets are at. So one way to address that is to make premiums be capped at 15¢, but potentially go down as markets are projected to be far above 9.50, but that would complicate the delivery of the program. But if you were to do that, participation would be more stable in the program.

Mrs. FISCHBACH. Thank you very much. And maybe, if there is anyone who just wanted to add anything to that? Otherwise, I can move on. Mr. Durkin, you mentioned the outdated cost study used to determine *make allowances*. Now that it is more than 15 years old, I know there is another study that is currently underway, but, with high inflation, that study may be outdated by the time it is delivered. Assuming inflation gets under control, with what frequency should the USDA conduct those cost studies to inform accurate make allowances?

Mr. DURKIN. Speaking specifically for our company, we would advocate to be on an annual basis, but if that becomes too burdensome for either USDA, or certain processors in the United States, we would be okay with moving that to every couple of years. But what you may be able to do then, too, is add an index to that, an inflationary index that is a component of that, and, again, it just gets adjusted when the cost studies are done.

Mrs. FISCHBACH. Okay. Thank you. And I guess I would just like to give the panel the opportunity, if there is anything as we are very close to wrapping up, is there is anything that you wanted to add to any of the comments that have been made or anything, just give anybody the opportunity, with my extra minute and a half here. And if not, Mr. Chairman, I yield back.

The CHAIRMAN. All clear. Thank you so very much. And, lady and gentlemen, I want to thank you, on behalf of our Agriculture Committee. This has been an excellent hearing, and you brought out some very, very important points. For example, it was clear that the improvements that led to the creation of our Dairy Margin Coverage during the last farm bill have been beneficial. We are very delighted to hear that. And I am excited to keep optimizing the program we are doing.

But there is one issue here that you all have brought even greater attention to, and that is the status of our small family farms within dairy, as they are within our beef area, of which both of you belong, our beef, our milk. You can't get more vital anchors of our food sources than these two. And so this is why, as I said earlier, I want to make it known, we are determined to address this issue of helping preserve our small family farms. And so, the testimony that you all gave to us will help us as we move forward to draft legislation to do precisely that. I am committed to that. I was born on a farm, grew up on it. A family farm, passed through generations. But now we have younger generations of family farms who are making the decision not to enter, and because of serious issues. So, I believe there is no greater issue we need to tackle than preserving the foundation of our agriculture system in this nation, and that is the family farm.

And so I want to thank you for it. I want to thank you, Ms. Dana Coale, the two who were in here earlier, who were the Deputy Administrator of the Agricultural Marketing Service. Mr. Scott Marlow was in, Deputy Administrator for the Farm Service Agency. And now our second panelists, Ms. Lolly Leshner, she and her husband own and operate Way-Har Farms in southeastern Pennsylvania. Thank you. And Mr. Mike Durkin, President and Chief Executive Officer of Leprino Foods Company, thank you. And Mr. Travis Forgues is the Executive Vice President of Membership, CROPP Cooperative and Organic Valley, and Dr. Marin Bozic, Associate Director of Midwest Dairy Foods Research Center. I want to thank all of you. You have been very helpful. We may need you back again as we pursue the big issue, saving our family farms, because you all are the ones that can help us find out how we can do it. And so I just want to thank you for it, God bless you, and safe travels. Thank you.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional mate-

rial and supplementary written responses from the witnesses to any questions posed by a Member, and now this hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 1:34 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED BLOG BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA



Trusted Insight and Analysis

[<https://southernagtoday.org/2022/06/farm-level-milk-prices-set-record-in-back-to-back-months/>]

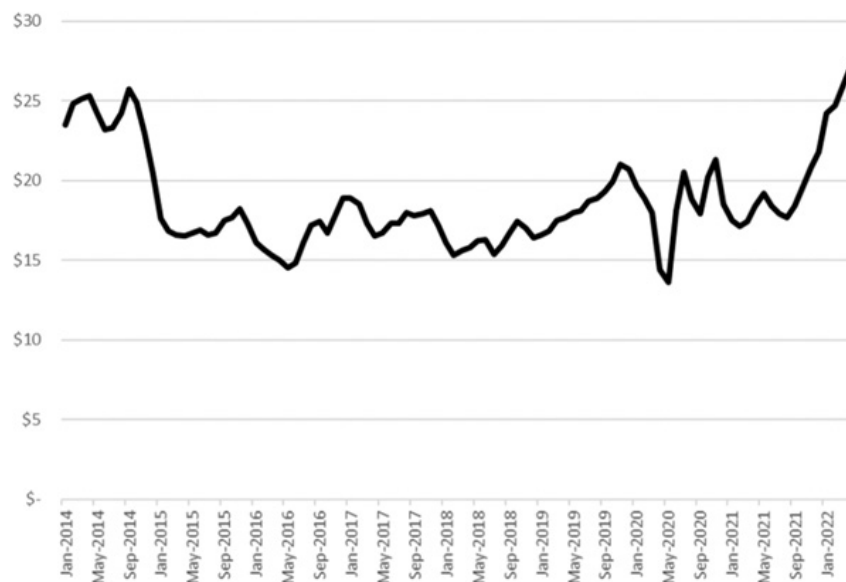


Farm Level Milk Prices Set Record in Back-to-Back Months

Burdine, Kenny. "Farm Level Milk Prices Set Record in Back-to-Back Months".¹ SOUTHERN AG TODAY 2(26.2). June 21, 2022.

After dealing with incredible volatility for much of 2020 and 2021, dairy producers are benefiting from a sharply stronger milk market in 2022. Prices for cheese, butter, and nonfat dry milk are running significantly higher than last year and are fueling farm level milk prices. The U.S. All Milk price set a record in March of 2022, then exceeded that level to set a new record the following month. From March to April, prices rose by \$1.20 to a record level of \$27.10 per cwt. Prior to March of this year, the record high milk price was set in September of 2014.

¹<https://southernagtoday.org/2022/06/farm-level-milk-prices-set-record-in-back-to-back-months/>.

U.S. All-Milk Price*January 2014 to April 2022, \$ per cwt*

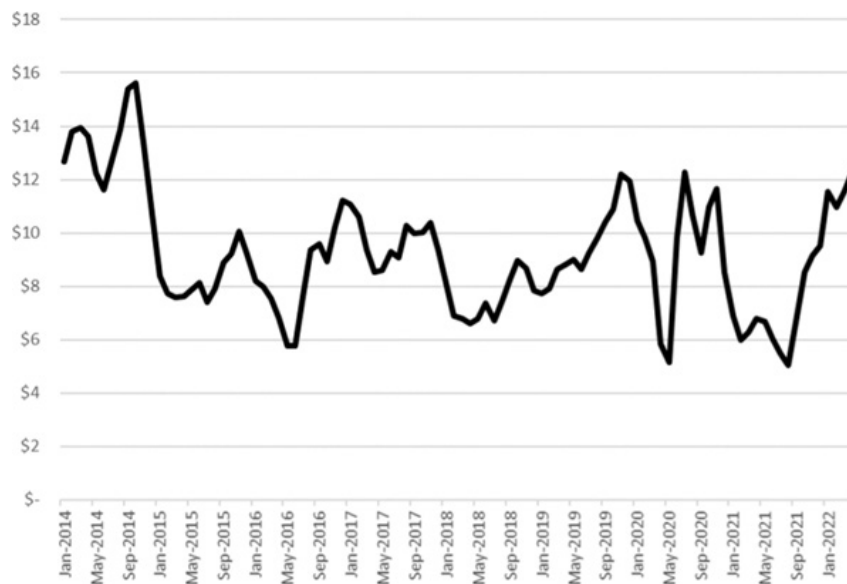
Source: USDA-NASS.

Like most all commodities, milk prices only tell part of the story this year. Dairy producers are dealing with higher production costs as feed, fuel, fertilizer, and other inputs are also much higher. While feed rations differ across all operations, the assumed ration for the Dairy Margin Coverage (DMC) program has become a common metric to estimate feed costs for dairy operations. DMC feed cost includes assumed quantities of corn, soybean meal, and alfalfa hay for a representative dairy operation.

From April 2021 to April 2022, the estimated cost of the DMC ration has increased by \$2.28 per cwt or 18%. The U.S. All Milk price has increased by more than enough offset that increase over the last year, but considering the increase in feed costs does put the historical price levels in a slightly different perspective. While milk prices are setting record highs, estimated returns above feed costs have reached levels comparable to what was seen at times in 2019 and 2020. And, they are not at the levels that were seen during 2014.

DMC Margin—U.S. All Milk Price Minus DMC Feed Cost

January 2014 to April 2022, \$ per cwt



Source: USDA–FSA.

SUBMITTED ARTICLE BY HON. KAT CAMMACK, A REPRESENTATIVE IN CONGRESS FROM FLORIDA

Tampa Bay Times

[<https://www.tampabay.com/opinion/2022/03/08/florida-dairy-farms-need-a-policy-update-column/>]

Opinion ¹ | Guest Column

BRITTANY NICKERSON-THURLOW

Florida dairy farms need a policy update

While 150 cow operations still exist in Florida, the average Florida dairy now has more than 1,300 cows, and policies from dealing with climate change to immigration reform need to reflect those new realities.

¹ <https://www.tampabay.com/opinion/>.



My family's farm started as a 27 cow dairy my grandparents financed. Over the generations, our family farms grew to a milking herd that included 5,000 cows and employed 40 people. From climate change and emissions control to immigration reform, Federal policy needs to reflect these new realities.

Published Mar. 8, [2022]

As they have been for generations, dairy farms are an important part of Florida's fabric. And as always, dairy farms overwhelmingly are family businesses—95 percent of U.S. dairies, in fact, are family-owned and operated, according to USDA statistics.

But what a dairy farm is also has been changing. The average size of a U.S. dairy farm has risen from less than 130 cows 20 years ago to more than 300 cows today. In Florida, family dairy farms are even bigger—while 150 cow operations still exist in Florida, the average Florida dairy has more than 1,300 cows.

My own farm is part of this story. My family's farm started as a 27 cow dairy my grandparents financed after my grandfather returned home from serving in the Army. In the 1960s, 27 cows was enough to raise one family with three sons. My dad and uncle decided to stay on that farm, buying two more small farms with their parents in the mid-1980s. Those three farms—and their 400 cows—provided for three farm families and a few employees.

I grew up on one of those farms—I live next door to it today. When my grandfather retired after our fourth farm was built in 2003, the milking herd across all operations included 5,000 cows and employed 40 people. As my generation graduated from high school and college, the then-four dairy farms split into two businesses. Today, those farms support six farm families, including my own, and 36 employees.

That's a lot of change in three generations. And those changes are why, as part of the next farm bill and in Congress this year, Members of Congress need to remember the needs of dairy farms that are still family-owned, but much more complicated in how they're run. We're seeing missed opportunities from Washington to make a meaningful difference. We're hoping that this year, with elections and the work beginning on the next farm bill, we family dairy farmers might be heard.

One example of missed opportunities is a benefit that's being distributed across dairy country right now: The Federal Pandemic Market Volatility Assistance Program. This program meant to make up for revenues lost during the early days of the pandemic because of a change to the Federal formula on how milk is priced. The Pandemic Market Volatility Assistance Program spends \$350 million compensating farmers for losses of \$750 million.

Unfortunately, while it's well-intentioned, the program caps compensation at an amount that doesn't cover losses beyond what works out to the first 400 cows of an operation. That sounds like a way to help small, family farmers—but many family farms aren't that small, and many farms have multiple operations that give them an edge in payments.

My cousins own three of our original four farms. Because of the rules, they were able to capture up to three times the Pandemic Market Volatility Assistance Program funds I received, despite the fact that my single-family farm produces more milk—and thus lost more money—than their three together. Given the average size and mixed demographics of a Florida dairy business, it's easy to see how the effort falls short.

Another missed opportunity is climate change. U.S. dairy is a global leader in reducing agricultural emissions, with a target of carbon-neutrality by 2050. Federal policy could better help dairies of all sizes transition to an even more sustainable future. While smaller farms play an important role in sustainability, the fact is that larger ones can make a big difference. Farms like ours are already part of the solution—we graze our cows on grass pasture that's sequestering carbon in our soil and absorbs carbon from the atmosphere 365 days a year. We also recycle all our water, and we re-use the manure from our cows as fertilizer. We could be an even larger part of the solution if policies catch up to our promise.

Farmers also need immigration reform. Our current immigration system forces many high-quality workers into the shadows, making it impossible for families and businesses to plan ahead. Immigration policy often gets caught up in emotional debates that have nothing to do with farming—but lower-hanging fruit could be harvested through changes to visa programs that would make a temporary foreign workforce more workable for dairy.

These are only some of the many challenges dairy farmers face—everything from animal care to environmental stewardship is part of what makes a family farm work. And there's a lot of work to do. Family dairies are still doing what we do best—sustainably providing nutritious products to America and the world. Federal officials need to adapt to changes in how that's done to make sure the dairy industry, and the communities they serve, continue to thrive.

Brittany Nickerson-Thurlow was recently elected vice-chair of Southeast Milk Inc., Florida's dominant dairy co-op.

SUBMITTED LETTER BY ED MALTBY, EXECUTIVE DIRECTOR, NORTHEAST ORGANIC DAIRY PRODUCERS ALLIANCE

June 22, 2022

Chairman Scott and Committee Members,

The Northeast Organic Dairy Producers Alliance (NODPA), founded in 2001, is the largest grassroots organization of organic dairy producers in the United States. It has remained true to its original goals of advocating on behalf of producers for a sustainable pay price, regardless of who they sell their milk to, and to protect the integrity of the USDA Organic Regulations. To learn more, visit www.nodpa.com.

I was a dairy farmer for thirty years and have been farming both livestock and produce since I stopped dairy farming in 2000. I have been Executive Director of NODPA since 2005; served on the USDA Dairy Industry Advisory Committee in 2010; and serve on the Executive Committees of the National Organic Coalition and the Organic Farmers Association.

Organic certification is the only third-party audited program in the U.S. and, as a Federal program, is subject to a variety of Federal policies, regulations and programs, along with the enforcement of the organic standard by the USDA's National Organic Program (NOP). NODPA has worked with the NOP and all stakeholders to develop and implement regulations developed from the National Organic Standards Board (NOSB) recommendations that improve the integrity of the organic seal; ensure a living wage for organic farm families and their employees and ensure consistent implementation of regulations across all regions and certifiers.

State of the Organic Dairy Market

Since 2002, the retail organic dairy market has grown to 6.5% of the total domestic retail sales of milk products in 2021. It experienced growth of 7–15% per year in most years from 2005–2015, with the exception of the 2008–2009 recession. Its retail price per half gallon has been consistent, fluctuating between an average of \$3.80 and \$4.20 since 2008, according to data from the USDA AMS. Initially, the retail market was dominated by Horizon Organic, with CROPP Cooperative's Organic Valley brand in the top ten for retail sales. In the last few years, store brand or private label milk has dominated in sales, with Horizon in second place and Organic Valley branded product lower on the list of retail sales. The store brands are supplied by the large, vertically integrated companies in the West and Southwest,

and by CROPP Cooperative, which sources its raw milk from a variety of different sized farms.

The price paid to organic dairy farmers in the northeast had slowly increased with the growth in demand since 2001 when NODPA objected to a cut in pay price by Horizon Organic from \$20 per hundred pounds to \$19. Pay price peaked in 2015, at \$38 per hundred pounds, with demand exceeding supply. Cost of organic dairy production in the Northeast in 2015 was determined to be \$35 per hundred pounds by an ongoing study conducted by the University of Vermont. USDA NASS's organic census showed that an increase in the number of organic dairy cows from 2014 to 2015 was 1,068, while the increase in organic cows from 2015 to 2016 was 38,326. Many of the large vertically integrated organic herds catering to the store brand companies used a loophole in organic regulation (Origin of Livestock) to dramatically increase their cow numbers, and by 2016 there was a surplus. This coincided with a slowdown in demand for organic dairy products, lax and inconsistent enforcement of organic regulation, increased consolidation in organic dairy and an increase in demand for plant based 'milks.' By 2018, the Northeast pay price had dropped by up to 25% and has not recovered.

The pay price average for 2022 is projected to be \$31 per hundred pounds. After 5 years of a pay price below their costs of production, small- to mid-size organic dairy farm families are leaving the industry, with the data showing that only those larger herds of 300+ cows have the ability to survive at the current low pay price. There were two bright spots in the past couple of years; one being that the increase in sales during COVID did reduce the surplus; and CROPP Cooperative gave a 50¢ per hundred pounds (6¢ a gallon) increase in pay price in 2022.

How is pay price determined? The organic pay price is determined by the two national buyers, vertically integrated large organic dairies, and the conventional price for balancing organic milk when there is oversupply. The national buyers are CROPP Cooperative and Danone NA, and the major independent supplier is Aurora Dairy. The two major buyers, with their own dedicated pool of milk, dominate the supply-side; buying organic raw milk at a price they set because monopsony is prevalent in organic dairy. Each buyer has regional pricing depending on geographic location. They also have quality incentives and penalties that are similar but not identical. In many cases, a farmer's decision as to whom they sell their milk is determined by the pick-up route or processing plant that is nearest to their farm. Historical data shows that when there is a surplus of organic milk, the pay price drops across the board. It is only when supply is short or there is a new entrant into the supply market that pay price will increase, but not because farm operational costs increase or there is greater demand on the world market. Milk buyers have to bear the increased costs of balancing supply with demand, and this affects the pay price in both the conventional and organic market because any surplus has to be sold at a lower price. Pay price is now determined by the price that CROPP sets to compete in the store brand market since approximately 70% of its raw milk supply is sold into the store brand or private label market. The price that CROPP pays sets the price for what all organic producers are paid, although recently Danone, owners of Horizon Organic, has cut its pay price below CROPP's.

We are talking about more than just organic dairying. We all know the multiplier effect of small- to mid-size operations that are the backbone of the rural community. In a letter to the USDA Secretary in September 2021, seven United States Senators and six Members of Congress used the phrase "The organic dairy industry is an important economic engine in the Northeast and these farms serve as anchor businesses to many of our local rural economies," to describe the role of organic dairies. Organic Agriculture is also a climate smart system of agriculture. Science demonstrates that organic farming reduces greenhouse gas emissions, builds soil health and sequesters carbon, and fosters resilience to droughts, floods, and other extreme weather conditions. The practices pioneered by organic farmers, such as cover cropping, are being adopted more broadly in agriculture. All farmers can benefit from these cutting-edge practices to reduce greenhouse gas emissions and sequester carbon.

Organic regulations require farmers to use soil building practices, such as crop rotations, cover crops, and pastured grazing for livestock, which have been proven to improve soil health and increase carbon sequestration. Organic is the ONLY federally regulated label to require the use of these climate-smart farming practices.

The following chart is the average northeast base pay price, in dollars per hundred pounds, since 2004:

Average Northeast Base Pay Price—\$ per hundred pounds

2004	\$22.97
2005	\$24.73
2006	\$26.00
2007	\$25.80
2008	\$28.38
2009	\$27.50
2010	\$28.80
2011	\$30.00
2012	\$30.75
2013	\$33.39
2014	\$35.39
2015	\$38.39
2016	\$35.68
2017	\$33.27
2018	\$29.52
2019	\$29.51
2020	\$29.51
2021	\$29.51

Organic Dairy Farmers and their families are in a dire situation and in need of constructive assistance now and continuing aid to maintain their operations in the future. As CROPP has stated in its testimony, they cannot go to the market for an increase in price because they have only a small volume of consumer facing branded product. They are subject to competition from large scale, vertically integrated, low cost operations in the competitive store brand market. Organic dairy has none of the direct risk management tools that conventional dairies have. The process of deciding a pay price is opaque and lacks any process. Eighty nine organic dairies in the northeast lost their market because their buyer Danone wanted to change their logistics to cut costs. CROPP has found a market for only 58 of them in their reserve pool. We can't afford to lose any more.

The following are potential remedies that can be implemented as soon as possible to begin to address the disadvantages facing American Organic Dairy Farm Families.

- **Develop an Organic Dairy Margin Coverage (DMC) Program**
- **Address the Lack of Competition in Organic Dairy:** Congress should instruct USDA to work with DOJ to investigate the effect of lack of competition in New England and eastern New York in light of Danone's decision to exit the region.
- **Expansion and investment in dairy processing**
- **Consistent Regulation Enforcement:** The issues around sustainability for the small- to mid-size operations (80–1,000 organic cows) hang on how well the USDA's NOP enforces the regulations. Inadequate and inconsistently implementation for regulations has allowed the supply side of organic dairy to be exploited by low cost operations that exploit loopholes.
- **Request for more detailed organic milk data to reflect the depth of information provided for non-organic milk production:** We request that the Committee instruct USDA to establish mechanisms for publishing data for organic milk so organic farmers can understand their market in ways similar to the conventional market.
- **Financially reward the good work that organic farmers are doing regarding climate change**
- **FSA/Organic Certification Cost Share Program (OCSSP)**

1. Develop an Organic Dairy Margin Coverage (DMC) Program

Develop a program that analyzes organic milk price and feed cost data to determine possible benefits of an organic counterpart to the existing Dairy Margin Coverage (DMC) Program which has been used effectively in conventional dairy. We are asking that FSA, in coordination with NASS and AMS, use available organic price and feed data to develop an organic DMC program. To the extent possible, USDA should use organic data that is as comparable as possible to the data sets used under the DMC program. If there are data sets used for the DMC that have no com-

parable organic data set, we urge USDA to note that deficiency and provide analysis of the potential to start collecting those organic data.

- The Dairy Margin Coverage (DMC) Program, developed as part of the 2018 Farm Bill, is a national risk management program that offers margin protection to dairy farmers, defined as the difference between the national all-milk price and national average feed costs. The program is particularly targeted to benefit small- and medium-scale dairy farms, and it is this size operation that is suffering the most in organic dairy. Producers can choose their level of coverage. While premiums increase based on level of coverage chosen, those premiums are highly subsidized for a producer's first 5 million pounds of milk production annually, which is the mechanism used by Congress to target the benefits to small- and medium-scale dairy farms. Producers can buy coverage for production above the 5 million pound threshold, but the premiums for coverage above that are significantly higher, by design.
- The factors used to calculate the monthly margin DMC payments are the average national all-milk price minus national average feed costs (including corn, soybean meal, and alfalfa hay). The all-milk price is reported monthly by the National Agricultural Statistics Service (NASS). The corn and alfalfa hay prices are also reported monthly by the National NASS, and the soybean meal price is reported monthly by the Agricultural Marketing Service (AMS). USDA's Farm Service Agency (FSA) uses those data to administer the DMC program.
 - o Conventional and organic dairy producers are eligible for the program. However, the price factors used to calculate the margin are based on conventional prices. While in some circumstances this can be beneficial to organic producers, the current and future situation will have an adverse effect on organic dairy as the pay price is low and inputs high in organic but the conventional price has a high pay price even though inputs have increased in price. In 2022 Class [I] price is in many cases higher than the organic base price.

2. Expansion and investment in dairy processing

Congress should make the investment in scale appropriate dairy processing a priority in the 2023 Farm Bill.

Investment must be made in both existing successful track-record processors who are positioned and can scale production quickly and in new scale appropriate processing facilities to continue to develop system flexibility.

The creation of a new supply-side model for organic dairy is needed that addresses the immediate loss of milk markets for organic dairy producers and provides them with long-term sustainability. It is clear that the major dairy companies in the U.S. are quickly moving away from rural communities in favor of more cost-effective supply chains and huge, vertically integrated operations. It has become apparent that the whole organic milk supply-side model needs to change. The current model for the supply side of organic dairy is obsolete, with many organic dairy farms facing extinction now, and many more likely to follow. A long-term analysis of the future of organic dairy family farms will be regionally based. A new organic dairy supply-side model is needed, and a successful model will feature regionally owned, scale-appropriate facilities to process regional milk that will be sold into the regional market as a source-identified local product that will give an adequate pay price that ensures a living wage to organic family farms in the USA.

3. Address the Lack of Competition in Organic Dairy

Congress should instruct USDA to work with DOJ to investigate the effect of lack of competition in New England and eastern New York in light of Danone's decision to exit the region. New remedies should be proposed to restore competition in the region. The results of this investigation should inform future updates to Federal guidelines on horizontal and vertical merger approvals.

The crisis in New England and eastern New York caused by Danone with their Horizon brand decision to cancel their supply contracts with 89 farm families is a vivid regional example of the impacts of consolidation that plagues the entire organic dairy sector. Previous government decisions have allowed this consolidation to worsen and should be revisited. When Danone purchased White Wave in 2017, the Department of Justice mandated that Stonyfield Organic (owned by Danone with a supply contract with CROPP Cooperative) would have to be sold as a remedy to prevent monopsony in the region. Stonyfield Organic was sold to Lactalis, the second largest dairy company in the world. Now, effectively, there is only one buyer of organic milk in New England and eastern New York: Lactalis. Lactalis purchases 80% of its total milk supply from CROPP and purchases the other 20% either directly from Northeast farms or other sources. CROPP milk from New England and eastern

New York is also used in packaged product under the Stonyfield Organic label, licensed to CROPP by Lactalis.

4. Consistent Regulation Enforcement

Increase enforcement to level the playing field with consistent implementation of all regulations

Finalize the rule to crack down on organic fraud, the ‘Strengthening Organic Enforcement’ Rule.

Fraudulent organic imports and domestic fraud undermines consumer confidence in the organic label and undercuts prices for U.S. organic producers. Congress required USDA to issue a final rule to strengthen organic enforcement by December 19, 2019. The comment period on the Proposed Rule ended on Oct. 5, 2020. The rule is still under review by USDA.

This is unacceptable. We are asking that Congress urge USDA to move this rule forward as swiftly as possible.

Strengthen pasture rule enforcement with particular attention to high risk Concentrated Animal Feeding Operations (CAFO)

Particular attention needs to be paid to the following:

- a. Certifier’s inspection reports are inconsistent in detailing the growing season applicable to each operation. There is published data that reflects the growing season for each area. The operation must follow the applicable growing season rather than fall back on the minimum of 120 days.
- b. In evaluating percentage of dry matter consumption from pasture, each class of animal is required to be assessed separately.
- c. Attention needs to be paid to the crop rotation within the OSP with pasture as a crop.
- d. There is a lack of certifier/ inspector expertise in evaluating the dairy rations of large-scale dairies who use sophisticated technology and teams of veterinarians/nutritionists to prepare reports that may be impossible for the average dairy inspector to interpret when they analyze dairy rations and tie them to production and pasture consumption. NOP needs to mandate that these dairies are inspected by highly qualified dairy nutritionists experienced in pasture management. Surprise inspections of all pasture usage on large-scale dairies during the growing season needs to be required.
 - NOP needs to continue to level the playing field in providing inspectors who can interpret the unsophisticated but honest record keeping of small-scale dairies that do not have the technology, money or time for reports to satisfy desk audits. An experienced dairy inspector can take a walk in the pastures, noting the locations of water, shade and access pathways that are well worn by animals and view the unique signs of grazing within pastures, to assist in their evaluation of meeting regulations.
 - NOP should continue its Dairy Compliance Program; NOP should provide a detailed update with information that would help identify inconsistent enforcement that may be contributing to economic disadvantages for Northeast organic dairy operations.

5. Request for more detailed organic milk data to reflect the depth of information provided for non-organic milk production

We request that the Committee instruct USDA to establish mechanisms for publishing data for organic milk so organic farmers can understand their market in ways similar to the conventional market.

- a. Pay price for organic dairy farmers is set either by direct marketing of products to the consumer; a personal contract with the buyer (organic brand, dairy processor or, in the case of vertically integrated organic CAFO’s, retailer), or as part of a cooperative agreement as a member of a cooperative. There is a scarcity of organic data available for the farmer to make decisions on the state of the organic market, projections on potential changes in supply and demand and the value of their product.
- b. The Federal Milk Marketing Order program (FMMO) already receives data that allows them to provide information on the organic dairy sector. Statistics on dairy also are found at the USDA National Agricultural Statistics Service (USDA NASS) and the USDA’s Economic Research Service (USDA ERS). Every region produces a monthly statistical report that is published up to 2 months in arrears of the usage.

- c. FMMO data is derived from reports submitted by pooled handlers. The majority of organic milk is processed at FMMO pool plants that also process and manufacture conventional milk and are required to report to the FMMO. Only FMMO 1 (the Northeast Order) reports some of this information in its monthly statistical reports, in limited form. The FMMO 1 Monthly Statistical Report breaks out organic Class I fluid volumes for Whole Milk and Reduced Fat Milk (2%), which limits how the report can be used. Providing only part of the needed data, however, the information can also be combined to get an inaccurate picture of utilization of organic fluid milk in the Order and marketplace.
- d. USDA Dairy Programs asserts that it only has the statutory authority to collect Class I (fluid milk) data in the detail necessary to separate milk produced under organic production. We request that the Committee instruct USDA to identify this deficiency and provide analysis of the potential to start collecting that organic data for all Orders.

The collection of the following data is within the statutory authority of the FMMO but is not published on a regular basis:

- (a) Utilization of organic Fluid Milk products and cream from Producer Receipts and Other Sources: Class I milk:
 - 1.i. Marketing Area;
 - 1.ii. Other Federal Markets;
 - 1.iii. Non-Federal Markets
- (b) Utilization of Fluid Milk Products and Cream by Pool Plants for Class [I] Milk, for all Orders:
 - 1. Organic Whole Milk
 - 2. Organic Reduced Fat Milk (2%)
 - 3. Organic Low Fat Milk (1%)
 - 4. Organic Fat Free Milk (Skim)
- (c) Organic Mailbox Price by region
- (d) Export of organic dairy products

6. Financially reward the good work that organic farmers are doing regarding climate change

Organic agriculture should be front and center in policies that address the role of agriculture in combating climate change. Organic dairy farmers should be at the table for these discussions. Congress should reward the good work that organic farmers are already doing and should assist others interested in transitioning to organic.

We are asking that Congress should include provisions in the 2023 Farm Bill to:

- Support organic farmers and help others to transition to organic.
- Increase funding for organic research related to climate change.
- Increase funding for USDA conservation programs to reward regenerative organic farming practices.
- Modernize USDA risk management programs to reward, not penalize, regenerative organic farming practices.

Include provisions in the FY 2023 Agriculture Appropriations bill to:

- Increase funding for USDA's National Organic Program with focus on increased enforcement of existing soil health requirements
- Increase organic research funding related to climate change.

7. FSA/Organic Certification Cost Share Program (OCSSP)

In the previous Administration, USDA's Farm Service Agency (FSA) unilaterally cut reimbursements to organic farmers under the Organic Certification Cost Share Program (OCCSP), in conflict with the 2018 Farm Bill directive. As a temporary stopgap, USDA created a parallel Organic and Transitional Education and Certification Program (OTECP), which NODPA has supported. OTECP is currently slated to provide stopgap funding through FY2022.

For FY 2023, it is critical to fully fund the OCSSP. The OCSSP is especially important for small- and mid-size farms and for underserved producers. A recent survey conducted by the Organic Farming Research Foundation <https://ofrf.org/research/nora/> shows that the cost of organic certification was identified as a major challenge—29% of all organic farmers listed this as a challenge & 61% of Black, Indigenous and other farmers of color identified this as a challenge. Thus far, USDA

has not committed to fully restore the program for FY23, so we are asking Congress to fix the problem through the FY 2023 appropriations process.

Summary

The future for all small- to mid-size organic dairies must include regulations that maintain organic integrity, not undermine it for the benefit of large operations and milk handlers. We must have strong enforcement and certifiers that understand the regulations and a USDA NOP that can ensure consistent enforcement at all levels of production. We must also look at infrastructure that is scale and market appropriate. If we have regulations that are strongly enforced, the processing, packaging and marketing infrastructure will have a secure base to build on. For organic dairy, that will mean having modern processing facilities that are designed to process and package smaller quantities of milk to meet the needs of the value-added products that have a strong market with discriminating consumers. When the next pandemic or weather crises happens, will the food supply chain be more protected or more exposed with less processing capacity and a smaller rural population?

NODPA appreciates the opportunity to provide written testimony for the "A 2022 Review of the Farm Bill: Dairy Provisions." Please reach out to me with any questions or follow-up from Committee Members as you take on the massive work of developing the 2023 Farm Bill.

ED MALTBY,
NODPA *Executive Director*.

SUBMITTED LETTER BY KATE MENDENHALL, DIRECTOR, ORGANIC FARMERS
ASSOCIATION

June 30, 2022

Chairman Scott, Ranking Member Thompson and Members of the Committee:

The Organic Farmers Association (OFA) is a membership organization that represents U.S. certified organic farmers. Our organization was founded by and is controlled by certified organic farmers, and only domestic certified organic farmers vote on OFA's policies and leadership. We would like to share with the Committee some more information related to a problem in organic dairy that the Chairman referenced in his opening remarks.

In August 2021, Horizon Organic (owned by Danone North America) notified organic dairy farms in Maine, Vermont, New Hampshire and several counties in New York that it would terminate their contracts in the summer of 2022. This decision is directly impacting 89 organic family farms. Since the original announcement, Danone announced that it will keep the impacted farms on contract for an additional 6 months (for a total of 18 months from the original notice), but will still be pulling out of Maine, Vermont, New Hampshire and several counties of eastern New York.

This impacts not only the 89 farm families who have to cope with the loss of their milk contract, but could also affect the rural communities where these farms are located, other organic farmers who supply these operations with feed and local businesses who provide services to these farms. And we believe it is a useful example of the damage done by the extreme levels of consolidation that are present in every sector of agriculture, even a specialized market such as organic, where many assume that farmers must be better off because organic products are sold for a premium.

While the crisis caused by Horizon's decision to exit the Northeast is focused in one region of the country, extreme consolidation plagues the entire organic dairy sector nationwide. In the organic dairy market, there are two national brands: Horizon Organic owned by Danone North America, whose parent company is Danone that is headquartered in France, and Organic Valley, owned by CROPP Cooperative based in Wisconsin. The leading retail seller of organic dairy products is store brand/private label products supplied by CROPP Cooperative and very large, confinement-style, vertically integrated organic dairies, such as Aurora Dairy farms and milk plants in Texas, Colorado and Missouri. The vertically integrated dairies have the economies of scale that allow them to undercut competitors in the price sensitive store brand/private label retail market, which by its nature has a lower retail price than branded organic product. In addition to economies of scale, there are ongoing problems with the enforcement of organic standards at these large operations, including requirements that organic dairy cows receive access to pasture and rules for how conventional animals can be transitioned into organic production. This enforcement is the responsibility of the U.S. Department of Agriculture (USDA), which

oversees organic certification. This enforcement problem goes hand in hand with the consolidation of the organic dairy sector—as these large vertically integrated operations entered the market, weaknesses in USDA’s enforcement system became more pronounced, and small-scale operations now compete on an unlevel playing field that puts them at a significant economic disadvantage in a market dominated by a few large buyers.

The consolidation of the organic dairy market gives disproportionate power to international companies to dominate both the supply side and the retail market, which has resulted in a lack of regional processing infrastructure in the Northeast and only one buyer for organic milk. That one buyer can set the price and conditions of any contract or cooperative agreement, leaving the organic dairy farmer only two choices, take the deal or leave organic dairy (or dairy farming altogether), with the resulting repercussions on their family and their rural community.

As you develop the next farm bill, we urge you to consider some specific needs of organic dairy producers. As the organic dairy sector has grown, organic dairy producers have not been able to access the same information about their industry from USDA’s Agricultural Marketing Service as their conventional neighbors. We urge Congress to instruct USDA to work with organic dairy producers to design reports with statistics available through the Federal Milk Marketing Order system to provide insight into the dynamics of how organic milk flows through national supply chains. Lack of transparency about supply and utilization of organic milk has been a source of confusion and frustration for organic dairy producers who would like to better understand these trends so they can adapt to an evolving industry.

Another area that Congress should address in the next farm bill is the Organic Certification Cost-Share Program. All certified organic operations must complete annual inspection and certification. The Federal Government has historically reimbursed up to 75 percent of organic certification fees paid by organic farms and businesses, with a maximum reimbursement of \$750 per certification scope (crops, livestock or handling) per operation, but since 2020, the program has paid a reduced reimbursement rate. In the next farm bill, we urge Congress to increase the reimbursement level and to streamline the program to reduce the up-front cost of certification instead of relying on a reimbursement model.

And in addition to the next farm bill, we urge you to exercise your ongoing oversight of the USDA, which is responsible for ensuring that products bearing the organic label are meeting the same high standards, no matter where they are from or what size operation produced them. Specific actions needed from the USDA include:

- The USDA and the Department of Justice should work with the inter-departmental White House Competition Council (established by President Biden’s Executive Order on Promoting Competition in the American Economy) to examine the organic dairy market in the Northeast as a case study of loss of resilience and harm to farmers caused by consolidation.
- The USDA should step up enforcement of organic pasture standards to level the playing field for smaller organic dairy operations and begin to enforce the newly updated Origin of Livestock standard.
- The USDA should complete and enforce long-delayed regulations necessary to protect the integrity of the organic label. Organic dairy producers rely on consumer trust of the USDA label to market their products, and USDA’s failure to update and enforce organic standards beyond those for dairy production can still put organic dairy farmers at risk of losing consumers’ trust. The USDA must complete the Organic Livestock and Poultry Standards rule and consistently enforce stronger animal welfare standards on organic farms, as well as the Strengthening Organic Enforcement rule that would implement important measures to detect and prevent fraud in organic supply chains, as required by the 2018 Farm Bill.

Thank you for your attention to the critical issues facing dairy farmers, including organic dairy farmers. Please contact our Policy Director, Patty Lovera, if you need more information or have questions about this testimony, [Redacted], [Redacted].

Respectfully submitted,



KATE MENDENHALL,
Director.

SUBMITTED STATEMENT BY STEVEN ETKA, COORDINATOR, MIDWEST DAIRY COALITION

Chairman Scott, Ranking Member Thompson, and Members of the Committee—

Thank you for holding this hearing to discuss important dairy policy issues in advance of the 2023 Farm Bill. I wanted to use this opportunity to introduce Committee Members to the Midwest Dairy Coalition and inform you about the policy positions of the Coalition.

The Midwest Dairy Coalition is an alliance of dairy cooperatives representing dairy producers in eight Upper Midwest states on Federal dairy policy issues. The Coalition collectively represents nearly 5,600 dairy farms, or about 19 percent of the dairy farms in the nation. On a regional basis, the Coalition's membership represents a majority of the dairy farms in the Upper Midwest and provides an effective and useful forum for dairy organizations to discuss, debate and propose common policy action dealing with the ever-changing Federal dairy issues of the day.

Member organizations include **Associated Milk Producers Inc., Bongards Creameries, Ellsworth Cooperative Creamery, First District Association, FarmFirst Dairy Cooperative, and Rolling Hills Dairy Cooperative.**

The Midwest Dairy Coalition has taken strong policy positions on a wide array of Federal policies affecting dairy farmers and their markets. While not all our policy recommendations are within the jurisdiction of the House Agriculture Committee, we believe it is important for the Committee to see the cross-cutting issues affecting dairy farmers and their cooperatives.

Dairy Margin Coverage (DMC) Program

The Dairy Margin Coverage (DMC) Program has proven to be a very important risk management tool for dairy farmers. The voluntary program gives participating dairy farmers the ability to manage risks associated with changes in the margin between milk prices and feed costs. The program was established in the 2018 Farm Bill as a successor program to the inadequate Margin Protection Program (MPP). In the 2023 Farm Bill, the DMC should be continued with the following updates:

- The 5 million pound annual production threshold (about 200 cows) between Tier I premiums and the higher Tier II premiums should be updated to 8 million pounds (about 320 cows). Doing so reflects the growth in average dairy herd size since the 2018 Farm Bill. The average dairy cow annually produces about 25,000 pounds.
- The production history used under the current program is based on a dairy farmer's highest production from 2011, 2012 or 2013. As part of the Consolidated Appropriations Act of 2019, Congress established a parallel program called the Supplemental DMC Program to allow smaller-scale dairy farmers (under 5 million pounds of production history) to receive a Supplemental DMC payment based on their 2019 production history. The updated production history concept of the Supplemental DMC Program should be merged into the base DMC Program to allow dairy farmers with 8 million pounds of production or less to update their production history to 2022 levels for future DMC payments.
- The Committee should also consider increasing the top DMC margin level from \$9.50 to \$10.00 per hundredweight, to partially reflect the increased costs of non-feed inputs used by dairy farmers. Variable feed costs are already captured in the base margin calculation formula of the DMC.

Federal Milk Marketing Order Modernization

The Federal Milk Marketing Order (FMMO) system has not been significantly updated since 2008. Because of the complexity of the system and the inter-related nature of all the aspects of the pricing system, the Midwest Dairy Coalition supports a full-scale review and improvements to the system and opposes efforts to seek more narrow changes.

Changes to the FMMO system should be made through the robust FMMO administrative hearing process, which was developed by Congress to fully consider all perspectives and potential repercussions of proposed changes, as opposed to mandating specific Federal Order changes legislatively.

Many of our members are actively engaged in FMMO discussions with other dairy farmer cooperative leaders from around the country through a process established by the National Milk Producer Federation (NMPF), at the urging of Agriculture Secretary Vilsack. The goal of this effort is to seek broad agreement on a full-scale proposal for FMMO modernization to be undertaken through the existing administrative hearing process within USDA's Agricultural Marketing Service. We urge the Committee to continue to monitor the industry's consensus-building dialogue. It is

paramount that this process be allowed to play out prior to any Committee consideration of legislative action on FMMO issues.

Dairy Pride Act (S. 1346 and H.R. 2828)

Truth in Labeling for Non-Dairy Beverages

Currently, FDA regulations require products labeled as milk, yogurt, ice cream and cheese to be produced from dairy animals. Unfortunately, FDA has not enforced those regulations, which has resulted in many plant, nut-based or lab-generated products being inappropriately labeled using dairy terms.

Consumers are often unaware that the nutritional attributes of milk and other dairy products far exceed those of non-dairy beverages. Bipartisan legislation has been introduced in the Senate and House to require FDA to enforce its own regulations. The Midwest Dairy Coalition is urging Members of Congress to cosponsor this important legislation.

Dairy Trade Issues

United States-Mexico-Canada Agreement (USMCA) Enforcement

The United States-Mexico-Canada Agreement (USMCA), signed into law in January of 2020, includes important provisions to reform Canada's trade-distorting dairy pricing policies and expand U.S. dairy access to Canada. However, Canada has not lived up to its dairy access commitments under the Agreement, which led the U.S. to file a dispute settlement case against Canada's actions. In January 2022, U.S. Trade Representative Ambassador Tai announced the U.S. had prevailed in its case against Canada. As part of the dispute resolution process, Canada was given the opportunity to put forward a proposal to revise its rules to comply with the ruling. Canada's proposals to comply with the ruling failed to address to underlying harms identified by the ruling. This led the Biden Administration in May of 2022 to initiate a second dispute panel over Canada's recent delays in fulfilling its obligations under USMCA. The Administration and Congress should continue to insist Canada comply with the dairy market provisions of the USMCA.

Geographic Indications and Common Cheese Names

The European Union has taken an aggressive stance in bilateral and multi-lateral trade negotiations to block the ability of U.S. dairy farmers and manufacturers to use common cheese names, such as parmesan, feta, and asiago. They argue these names should only be allowed for use by cheesemakers in the regions of the world where that style of cheese originated. However, these generic cheese names have been commonly used in the U.S. dairy sector for generations.

In a January 2022 judicial ruling, Judge Ellis of the U.S. District Court for the Eastern District of Virginia upheld a 2020 decision of the U.S. Patent and Trademark Office's (USPTO) Trademark Trial and Appeal Board regarding use of the term "gruyere." This ruling confirmed "gruyere" is a generic style of cheese that can come from anywhere. The decision reaffirms that all cheesemakers, not just those in France or Switzerland, can continue to create and market cheese under this common name.

Congress and the Administration should take steps in trade negotiations to preserve the ability of U.S. cheesemakers to continue the use of common cheese names.

Support for Bi-lateral and Multi-lateral Trade Agreements

In 2021, dairy product exports totaled 17.3 percent of U.S. total milk solids production, a record for the U.S. dairy industry. The U.S. dairy industry has the capacity to raise its level of exports even further.

The Midwest Dairy Coalition encourages the Administration to pursue comprehensive trade agreements whether bi-lateral or multi-lateral. The Administration's trade policy agenda refers to trade and investment and economic "frameworks" but that doesn't equate to trade agreements built around tariff cuts.

With respect to dairy competitors, the European Union, New Zealand, and Australia are showing signs that their dairy industries have limitations on their ability to significantly grow dairy exports in the future. More bi-lateral and multi-lateral trade agreements will give the dairy industry the opportunity to reach new highs in dairy exports.

Ocean Shipping Reform and Dairy Trade

The Midwest Dairy Coalition has endorsed the Ocean Shipping Reform Act to address the shipping challenges the dairy industry and other U.S. agricultural sectors have faced since the beginning of the pandemic. Therefore, we are very pleased that this bill recently passed Congress and was signed into law by President Biden. The new law will help alleviate delays and disruptions at U.S. ports that have been a

critical part of the export supply chain challenges plaguing U.S. dairy exporters. We thank Congressmen Garamendi and Johnson and Senators Klobuchar and Thune for their bipartisan leadership in getting this important legislation across the finish line.

Agriculture Labor Policy and Dairy Farms

Foreign-born workers are a critical part of the U.S. dairy economy and the communities where they live. While border security is important, establishing a clear process for immigrant dairy workers to establish legal status is critical. The Midwest Dairy Coalition supports agriculture labor reform legislation to:

- Provide an affordable and efficient guestworker program that ensures the continued availability of immigrant labor for all of agriculture, including dairies; and
- Permit those currently employed or with employment history in the U.S. to earn the right to work here legally, regardless of their current legal status.

The Midwest Dairy Coalition supports the Farm Workforce Modernization Act (H.R. 1603), as passed by the House in March 2021, and supports efforts to make improvements and pass the bill in the Senate.

The Role of Dairy in the National School Lunch Program

Dairy foods such as milk, cheese and yogurt provide critical nutrition to Americans of all ages. Dairy consumption helps Americans meet recommendations for calcium, vitamin D and potassium, three of the four under-consumed nutrients of public health concern. Dairy foods also make important contributions to the consumption of protein, magnesium, vitamin A and other nutrients in the U.S. diet.

Access to nutritious milk and dairy products is especially important for children—a large percentage of whom fall short of meeting daily dairy intake recommendations established by the *[Dietary] Guidelines for Americans* through the U.S. Department of Agriculture and the U.S. Department of Health and Human Services.

The decline in fluid milk consumption in schools has been linked, in part, to past Congressional and USDA efforts to prohibit schools from offering whole milk or low-fat flavored milks, which children prefer for a better taste experience. Nutrition and health science professionals have begun to reconsider those policies in recognition of the nutritional benefits of milk consumption for children. For example, a March 2015 Policy Statement from the American Academy of Pediatrics *declared* that “consideration of a beverage such as flavored milk provides a good example of the balance needed to limit added sugars and yet promote nutrient-rich foods.”

To help address the shortfall in daily intake of dairy products by schoolchildren, the Midwest Dairy Coalition supports:

- The School Milk Nutrition Act (H.R. 4635), introduced by Reps. Courtney (D-CT) and GT Thompson (R-PA), to ensure low-fat flavored milk remains an option for children as part of the National School Lunch Program.
- The Whole Milk for Healthy Kids Act (H.R. 1861), introduced by Reps. GT Thompson (R-PA) and Antonio Delgado (D-NY), to require children be offered a variety of fluid milk options as part of the National School Lunch Program, and to allow schools the option of serving whole milk.

Thank you for this opportunity to highlight the broad array of Federal policy initiatives that impact dairy farmers and cooperatives of the Midwest and nationwide. We look forward to working with the Committee as your farm bill hearings and deliberations continue.

SUBMITTED SIGN-ON LETTER BY ACTIONAID USA, *ET AL.*

National Call for Fair Prices for Dairy Farmers and Systemic Dairy Policy Reform

United States Senate,
Washington, D.C.;
United States House of Representatives
Washington, D.C.,
Date: November 10th, 2021
Dear Senators and Representatives,

We, the undersigned 91 farm, food, social, labor, and environmental justice organizations, urge Congress to take immediate action to implement fair prices for family-scale dairy farmers to address the ongoing U.S. dairy crisis.

For years, the prices paid to U.S. dairy farmers have regularly been below their costs of production. Prices dipped so low in 2018 that farmer suicides became national news. Low prices mean that family dairy farmers cannot pay their bills, contribute to their local economies, invest in sustainable practices, pay workers a fair wage, or transition their farms to the next generation. Federal dairy insurance and other payments have made little difference for most farmers, instead amounting to taxpayer subsidies for the large dairy processors who benefit from low milk prices.

Aided by Federal policy decisions, milk production has moved to industrial-scale operations, whose large-scale production contributes to driving prices down. Seventy percent of dairy farms went out of business from 2000 to 2020, even while milk production increased by over 130%.¹ Large-scale industrial operations have lower production costs, but this economy of scale conceals expensive externalities, in the form of water pollution, depressed rural communities, lower property values, worker rights abuses, and more.

Overproduction and low prices have led to an over-reliance on export markets to dispose of excess milk volume. Small- and mid-size farmers are particularly at risk in an export-focused industry, which is vulnerable to global political uncertainties. The fragility of the “get big or get out” approach has decreased the sector’s resilience in the face of shocks, as was clearly exposed in the COVID–19 pandemic, when farmers have dumped tens of millions of pounds of milk even as tens of millions of people are food-insecure.

The dairy insurance programs developed in the last two farm bills have acknowledged the problems, but have not fundamentally addressed chronic low prices, market volatility, and continued consolidation.

The U.S. dairy sector needs systemic reform to support fair prices for family-scale producers, address corporate consolidation, and reduce dependence on export markets.

We need a new U.S. dairy policy oriented towards small- and mid-size dairy farms, rather than corporate agribusiness. Successful models abound: U.S. dairy policies in place from the New Deal through the 1990s managed milk production and ensured farmers a fair price, while the U.S. sugar and cranberry industries and Canadian dairy market use similar elements that have stabilized those sectors in ways that U.S. dairy farmers need and deserve.

Core components of a successful dairy program must include:

- Price floors, based on scale of operation, that allow family-scale dairy farmers to cover their costs of operation;
- Production management mechanisms to re-balance U.S. dairy supply with demand, focused on scaling down the industrial-scale mega-dairies that contribute most to overproduction;
- Managed imports and exports to prevent undercutting farmer incomes and workers’ rights in the U.S. and limit dependence on foreign markets;
- Measures to restore competition to the sector;
- Investment and incentives to rebuild regional dairy infrastructure.

Such a program must include both the organic and conventional markets, and support for entry of new and beginning dairy farmers must be a particular priority. Many in the sector are also calling for reform of the antiquated Federal Milk Marketing Order (FMMO) system; there is great potential to incorporate other necessary changes in the sector into any FMMO reform process.

The benefits of a new way forward for the dairy industry are numerous: for consumers, workers, and dairy processors who will be guaranteed a consistent and resilient milk supply; for the climate and the environment, as family-scale dairies can manage their waste in a more ecologically-appropriate manner and are more likely to graze their animals to build healthy soil and sequester carbon; for rural economies, where a thriving dairy industry will respect workers’ rights while creating good jobs in processing and transportation; and for dairy farmers themselves, who deserve more transparency, competition, and control over the sector they uphold.

It is time for a change in the dairy industry. We call on your political leadership to support farmer- and worker-centered systemic reform of U.S. dairy policy. To sup-

¹ USDA “Milk Production,” 2/16/01 & 2/23/20.

port true sustainability from our kitchen table to our planet, we must support economic justice for dairy producers.

Sincerely,

<p>ActionAid USA American Agriculture Movement American Federation of Government Employees, Local 3354 American Sustainable Business Council Ashtabula, Geauga, Lake Counties Farmers Union (Ohio) California Farmers Union Campaign for Family Farms and the Environment Center for Food Safety Citizens Trade Campaign Coming Clean Community Alliance for Global Justice Community Alliance with Family Farmers Community Farm Alliance Cooperative Development Institute Cornucopia Institute Dakota Rural Action Fair World Project Family Farm Defenders Farm Aid Farm and Ranch Freedom Alliance Farm to Institution New England Farmworker Association of Florida Federation of Southern Cooperatives Food & Water Watch Food Animal Concerns Trust (FACT) Food Chain Workers Alliance Food Democracy Now! Food for Maine's Future Friends of Family Farmers Friends of the MST (US) Harambee House Inc. Health Care Without Harm Healthy Communities of the Capital Area Illinois Stewardship Alliance Institute for Agriculture and Trade Policy International Brotherhood of Teamsters Dairy Conference Iowa Citizens for Community Improvement Land For Good Land Stewardship Project Liberty Tree Foundation for the Democratic Revolution Maine Farm to Institution Maine Farm to School Network Maine Farmland Trust Massachusetts Avenue Project, Inc. Michigan Organic Food and Farm Alliance Migrant Justice/Justicia Migrante</p>	<p>Minnesota Farmers Union Missouri Rural Crisis Center Mississippi Association of Cooperatives Montana Cattlemen's Association National Dairy Producers Organization National Family Farm Coalition National Farmers Organization National Farmers Union National Latino Farmers & Ranchers Trade Association New England Farmers Union North American Marine Alliance North Carolina Association of Black Lawyers Land Loss Prevention Project Northwest Farmers Union Northeast Organic Dairy Producers Alliance Northeast Organic Farming Association—Interstate Council Northeast Organic Farming Association—Massachusetts Northeast Organic Farming Association—New Hampshire Northeast Organic Farming Association—New Jersey Northeast Organic Farming Association—New York Northeast Organic Farming Association—Vermont Northeast Sustainable Agriculture Working Group Northern Plains Resource Council Ohio Farmers Union Oklahoma Black Historical Research Project, Inc. Organization for Competitive Partners for Dignity & Rights Pennsylvania Farmers Union Presbyterian Hunger Program Public Justice Food Project R-CALF USA Real Food Media Regeneration Massachusetts Rural Advancement Foundation International—USA (RAFI—USA) Rural Coalition Rural Vermont Soul Fire Farm Sustainable Agriculture of Louisville United Food & Commercial Workers International Union Uprooted & Rising US Food Sovereignty Alliance Western Organization of Resource Councils WhyHunger Wisconsin Farmers Union Women Food and Agriculture Network (WFAN) 350 Seattle</p>
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Please contact NFFC Policy Director Jordan Treacle (jordan@nffc.net) or Dairy Consultant Siena Chrisman (siena@nffc.net) with any questions.

SUBMITTED QUESTIONS

Response from Scott Marlow, Deputy Administrator for Farm Programs, Farm Service Agency, U.S. Department of Agriculture

Questions Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question 1. The scale of dairy operations in Connecticut is much smaller than those in the West, and it is critical to ensure that provisions in the farm bill do not leave them out of the conversation. I hear from producers in my district, most of whom are small, family-owned operations, that they lack the capacity to interface with Federal assistance programs on top of running operations.

Administrator Marlow, is the Farm Service Agency properly equipped to conduct focused outreach to small farms? Would adjusting the DMC Program for small farms, as suggested by Mr. Forgues's testimony, help your agency assist smaller operations in Connecticut and the Northeast?

Answer. DMC is a risk management program providing benefits for participating dairy operations up to 5 million pounds of covered production history. By the numbers, small- and mid-size dairy operations make up a majority of those enrolled in DMC. Small dairy farms are viewed by many as important to the rural character to much of the continental U.S. and efforts are needed to keep them sustainable. USDA-FSA understands smaller dairy operations, compared to their larger counterparts, lack economies of scale, and do not have the technological and management resources the larger dairy operations have available. Finding a way to provide attainable resources for the smaller operations is an important point worthy of consid-

eration and was mentioned more than once during the recent House Agriculture Committee hearing.

Mr. Forgues, Executive Vice President of Membership for Organic Valley, provides suggestions that should be reviewed further. While it is important to remember a segment of small dairy operations are organic, grass based or other and may operate differently from typical dairy operations, it is not a realistic approach for the rest of the current dairy industry. USDA will seriously consider the proposals and make applicable program changes within authority, as we have accomplished in the past for dairy support programs.

Question 2. In 2021, about 19,000 operations had registered for the DMC Program. To date this year, the number of operations registered is about 17,000. To what do you attribute the drop in participation in DMC, and what efforts is the Farm Service Agency making to restore and increase participation?

Answer. Unfortunately, a small percentage of dairy operations determine their annual participation in DMC according to margin projections for the upcoming enrollment year. If indemnity payments are not predicted, the producer does not enroll to avoid payment of the premium fee. During the 2022 DMC Coverage Election Period prior to 2022, the DMC monthly margin projections were above the \$9.50 coverage level and consequently some producers declined 2022 DMC participation.

Prior to and during the DMC Coverage Election Period, FSA promotes the value of DMC risk management protection, and reminds producers the margin projections are not definite. This is not the first time annual participation dropped because there were no expected DMC indemnity payments during the DMC enrollment period. For the upcoming 2023 DMC coverage election period and future enrollment periods, USDA will promote the program benefits and perform significant outreach reminding producers and the dairy industry of the long-term importance of having a risk management program rather than trying to annually predict if the program will trigger.

While 2022 DMC participation is less than 2021 participation, 93 percent of 2021 producers enrolled for 2022 even with no expected indemnity payments. Additionally, it should be noted, nationally some dairy operations have chosen to dissolve and stop commercially marketing milk in 2021 and 2022.

During a very turbulent time for dairy feed and milk prices DMC provided significant financial support in 2020 and 2021 in the amount of \$1.4 billion. Over time, DMC has earned the trust of those producers participating in this important risk management program.

Response from Laura “Lolly” Leshner, Owner/Operator, Way-Har Farms; on behalf of National Milk Producers Federation, Dairy Farmers of America

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question. In your testimony, you highlighted how dairy farmers have long been responsible stewards of the environment. The numbers show that programs like the Environmental Quality Incentives Program (EQIP) are incredibly popular among farmers. However, this popularity leads to oversubscribing, and EQIP lacks the resources to fulfill every application it receives. Even the smallest farms in my district are taking important steps to adopt climate-smart practices, and Congress should be rewarding this behavior by making it easier to access assistance.

What level of investment would you suggest to help EQIP and other conservation programs meet high levels of demand?

Answer. We support enhanced funding for EQIP as well as better targeting the program toward areas of opportunity for dairy like feed and manure management. The recently enacted Inflation Reduction Act included \$8.45 billion in new funding for EQIP over 4 years, including \$100 million for Conservation Innovation Trials with emphasis on projects that use feed and diet management to reduce enteric methane emissions from livestock. We look forward to working with Congress in the upcoming farm bill to build on these initiatives.

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. Farmers have been asking for a national hearing on milk pricing, but the Secretary of Agriculture was quoted in a *Brownfield* interview earlier this month saying dairy stakeholders will have to all agree on one dairy pricing plan before opening a hearing. How do you see this working without a hearing process to evaluate multiple proposals? How do you see this process moving forward in terms of the farm bill and what happens if it does not?

Answer. The dairy industry through NMPF is working to develop a Federal Milk Marketing Order modernization proposal that can be submitted to USDA for consideration in a national Federal Order hearing. A hearing process allows for discussion of numerous ideas and proposals from stakeholders, but ultimately a national consensus will be needed for us to be successful and that's what we are working to achieve. That means a give-and-take that requires a careful balance if dairy farmers are going to succeed in improving our milk pricing system. As we work to develop lasting solutions, we're also engaging with other farmer groups, industry organizations, and experts from across dairy to make sure our proposal addresses widely shared concerns and attracts wide support. This involves open dialogue and fact finding through discussion in the industry, to ensure that all voices are heard. As the largest dairy farmer organization in the United States, as well as the one that represents farmers invested in their own milk processing capacity, NMPF is well-positioned to lead FMMO modernization discussions. USDA can convene hearings under existing law, or Congress can pass legislation, in the farm bill for example, directing USDA to convene hearings.

Question 2. The dairy check-off board representation is weighted geographically by milk volume not by farm numbers and the industry is consolidating with significant geographic shifts in production. As this occurs, should changes be made to the check-off program or should a referendum be conducted so farmers can confirm their support of its direction?

Answer. I have seen firsthand the critical work the Dairy Research and Promotion Program does to advance and promote the interests of all dairy producers. Its Undeniably Dairy media activation has introduced millions of Americans to real dairy farmers, which is important in our society that is more removed from the farm than ever. Through longstanding partnerships with school nutrition programs and food banks, the DRPP pivoted during COVID-19 to rapidly connect dairy farmers to schools and food banks. By leveraging partnerships and bolstering the supply chain, the industry got nutrient-rich dairy foods to children and families experiencing food insecurity through school and emergency food programs. The National Dairy Research and Promotion Board includes 36 dairy farmers who are in constant communication with their farmer neighbors around the country. The Board's members are well positioned to keep the program moving in a direction that serves all farmers.

Question 3. How have the changes to safety net and risk management tools in the last farm bill (*i.e.*, DMC, DRP) worked for your farm and others?

Answer. DMC has worked effectively since being enacted in the 2018 Farm Bill. We have purchased the maximum available DMC coverage each year since 2019, at a margin of \$9.50 per hundredweight, knowing that it may not pay out every year, but is intended to serve as a safety net when needed.

Question 4. What unintended consequences have you or other dairy farmers experienced since the Class I pricing change was implemented?

Answer. Unfortunately, the current Class I mover saddles dairy farmers with asymmetric risk because it includes an upper limit on how much more Class I skim revenue it can generate for producers than the previous mover, but no lower limit on how much less can be generated than the previous mover. Whenever the Class III and IV prices widely diverge, as is happening again today with higher Class IV prices, the current mover will significantly under-perform the previous mover. Even today, the current mover has not made up for the 2020 losses because it is only moderately different from the previous mover and has not performed significantly better at any point. In other words, when the asymmetric risk inherent in the current mover causes non-trivial losses, as it did in 2020, those losses become effectively permanent. This runs contrary to the intent of the 2018 agreement and isn't sustainable long-term public policy.

Question 5. Should dairy farmers have the right to vote individually on Federal Orders instead of being bloc voted by their cooperatives?

Answer. Dairy farmer-owned cooperatives play a large and critical role in the marketing of milk across the U.S., doing the needed work of balancing milk markets to ensure that all-milk supplied by their farmer-owners is marketed for the highest possible return to the farmer and moved as quickly as possible in volumes that manufacturers need. This often involves intricate logistical work that co-ops perform on behalf of their farmer-owners and extends to decisions on amendments to the Federal Milk Marketing Order system. The ability of co-ops to bloc vote on behalf of their farmer-owners is a fundamental component of the co-op's overarching goal of effectively marketing milk for the highest possible financial return to its farmer-owners. Under current procedures, a co-op may elect not to bloc vote on FMMO issues and in those cases its members receive individual ballots to exercise as they wish. A co-op board can also decide to bloc vote on behalf of its members, and if

it does so it must submit a certified copy of a resolution from the co-op board, which represents the co-op owners, authorizing the casting of the ballot.

Question 6. What are some of the dairy market access and competitive concerns we should be looking at in crafting dairy policy for the next farm bill?

Answer. Farm bill funding to support export promotion is a valuable tool—we should invest more in that space in the next farm bill, along the lines of bipartisan legislation recently introduced in the Senate. Also, within the scope of the farm bill, we're seeing a growing number of non-tariff trade barriers in different markets. One that is especially problematic in multiple countries are bans on the use of common food names like parmesan and bologna. The farm bill could help tackle this expanding trade barrier by charging USTR and USDA to negotiate protections for the use of commonly used food terms.

Response from Mike Durkin, President and Chief Executive Officer, Leprino Foods Company; on behalf of International Dairy Foods Association

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. Section 4305 in the 2008 Farm Bill instructed USDA to set up a trial of sorts, providing a variety of whole grain products in school lunch and breakfast programs, then evaluating student consumption and acceptance. Would a similar 'trial' for whole and 2% milk be helpful in this farm bill to evaluate consumption, waste and acceptance—given the facts that student consumption of milk has declined, waste has increased and key nutrients of concern found in milk have been documented as under-consumed over the past decade while schools have been restricted to offering only fat-free and 1% low-fat milk.^[1]

Answer. The 2020–2025 Dietary Guidelines for Americans, which continued the message of previous DGAs, recommended increased intake of dairy products, and identified dairy as an under-consumed food group.^{1*} This is especially true for many school age children, with between 68% and 76.2% of school age males and between 77.4% and 94.3% of school age females failing to meet recommended levels of dairy.² For all youth aged 19 and younger, mean intake of dairy is only 1.9 cup-equivalent per day, which is below recommendations by ½ cup or 1 cup-equivalents, depending on age.³

School meal program nutrition standards should encourage dairy consumption. School meals are a significant source of dairy, with the School Breakfast Program providing 40% of the dairy needed by students each day and the National School Lunch Program providing 47%.⁴ For children, dairy is the number one source of three of the four food substances of public health concern as identified by the DGA: calcium, potassium, and vitamin D.⁵

[1] **Whole Grain Purchases for School Meals:** Section 4305 in the 2008 Farm Bill instructed the USDA to purchase whole grains and whole grain products for use in the National School Lunch Program and School Breakfast Program. The section also instructed the USDA to evaluate whether children increased their consumption of whole grains as a result; which whole grains were found to be most acceptable to children participating in the school meal programs; and recommendations for integrating whole grain products into the school meal programs.

¹ U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020–2025*. † 9th Edition. December 2020. Available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).

* **Editor's note:** footnotes annotated with † are retained in Committee file.

² Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. † Online Materials, Table 1.15. U.S. Department of Agriculture, Agricultural Research Service, Washington, D.C. Available at: <https://doi.org/10.52570/DGAC2020>.

³ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. † Online Materials, Table 1.15. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Available at: <https://doi.org/10.52570/DGAC2020>.

⁴ U.S. Department of Agriculture, Food and Nutrition Service, *School Nutrition and Meal Cost Study: Volume 1—School Meal Program Operations and School Nutrition Environments*, † by Sarah Forrester, et al., Project Officer, John Endahl, Alexandria, VA: April 2019. Available online at: www.fns.usda.gov/research-and-analysis.

⁵ Keast, Fulgoni, Nicklas, O'Neil. *Food Sources of Energy and Nutrients among Children in the United State: National Health and Nutrition Examination Survey 2003–2006*. † NUTRIENTS 2013, 5, 283–301, doi: 10.3390/nu5010283.

Whole milk contains the same nutrients as all other fluid milk, including calcium, phosphorus, protein, vitamins A, D and B12, pantothenic acid, riboflavin, and niacin. Other full fat dairy products contain similar levels of nutrients as their low-fat or fat-free counterparts. While they do have higher levels of saturated fat than low-fat versions, a growing body of evidence indicates that consumption of full-fat dairy foods (milk, cheese, and yogurt) is not associated with higher risk of adverse health outcomes, including obesity, diabetes, and heart disease.^{6, 7}

Several recent research studies (including systematic reviews and meta-analysis) that examined the effect of higher fat milk consumption found that it was associated with lower childhood obesity and concluded that dietary guidelines that recommend reduced-fat milk versions might not lower the risk of childhood obesity.^{8, 9, 10, 11} One of these systematic reviews¹² also examined cardiometabolic health in children (2 to 18 y) in addition to adiposity and concluded that full-fat dairy consumption was not associated with increased body weight and adiposity, or with cardiometabolic risk in children.

Higher consumption of full-fat dairy has been shown to be associated with lower risk of total body fat mass in children.¹³ Whole milk has been found to increase satiety in children when served with breakfast.¹⁴ A systematic review showed that high-fat dairy products were inversely associated with risk of obesity.¹⁵

A summary of multiple studies on full fat dairy foods found that the evidence showed no association with high blood pressure, cardiovascular disease, and type 2 diabetes. Some of the studies reviewed showed full fat dairy was associated with lower risk of obesity.¹⁶

Consumption of full fat dairy has been found to be associated with neutral or lower risk of heart disease.¹⁷ A meta-analysis of 29 studies indicated that there is no negative effect on heart health of dairy, milk and yogurt, no matter whether those dairy products were full fat or low-fat.¹⁸

A review of the recent science stated: "No long-term studies support harms, and emerging evidence suggests some potential benefits, of dairy fat or high-fat dairy

⁶Dariush Mozaffarian, *Dairy foods, dairy fat, diabetes, and death: what can be learned from 3 large new investigations?*, † THE AMERICAN JOURNAL OF CLINICAL NUTRITION, nqz250, <https://doi.org/10.1093/ajcn/nqz250>.

⁷Mozaffarian D. *Dairy Foods, Obesity, and Metabolic Health: The Role of the Food Matrix Compared with Single Nutrients*. † ADV. NUTR. 2019;10(5): 917S–923S. doi:10.1093/advances/nmz053.

⁸Vanderhout S.M., Aglipay M., Torabi N., Jüni P., da Costa B.R., Birken C.S., O'Connor D.L., Thorpe K.E., and Maguire J.L. *Whole milk compared with reduced-fat milk and childhood overweight: a systematic review and meta-analysis*. † AM. J. CLIN. NUTR. 2019; 00: 1–14.

⁹O'Sullivan T.A., Schmidt K.A., and Kratz M. *Whole-Fat or Reduced-Fat Dairy Product Intake, Adiposity, and Cardiometabolic Health in Children: A Systematic Review*. † ADV. NUTR. 2020; 00: 1–23.

¹⁰Dougkas A., Barr S., Reddy S. and Summerbell C.D. *A critical review of the role of milk and other dairy products in the development of obesity in children and adolescents*. † NUTRITION RESEARCH REVIEWS (2019), 32, 106–127.

¹¹Kang K., Sotunde O.F., and Weiler H.A. *Effects of Milk and Milk-Product Consumption on Growth among Children and Adolescents Aged 6–18 Years: A Meta-Analysis of Randomized Controlled Trials*. † ADV. NUTR. 2019; 10: 250–261.

¹²O'Sullivan T.A., Schmidt K.A., and Kratz M. *Whole-Fat or Reduced-Fat Dairy Product Intake, Adiposity, and Cardiometabolic Health in Children: A Systematic Review*. † ADV. NUTR. 2020; 00: 1–23.

¹³Bigornia S.J., LaValley M.P., Moore L.L., Northstone K., Emmett P., Ness A.R., Newby P.K. *Dairy intakes at age 10 years do not adversely affect risk of excess adiposity at 13 years*. † J. NUTR. 2014 Jul.; 144(7): 1081–90. doi: 10.3945/jn.113.183640. Epub 2014 Apr. 17. PMID: 24744312; PMCID: PMC4056647.

¹⁴Kavezade S., Mozaffari-Khosravi H., Aflatoonian M., Asemi M., Mehrabani S., Salehi-Abargouei A. *The effects of whole milk compared to skim milk and apple juice consumption in breakfast on appetite and energy intake in obese children: a three-way randomized crossover clinical trial*. † BMC NUTR. 2018 Dec. 10;4:44. doi: 10.1186/s40795-018-0253-8. PMID: 32153905; PMCID: PMC7050899.

¹⁵Kratz M., Baars T., Guyenet S. *The relationship between high-fat dairy consumption and obesity, cardiovascular, and metabolic disease*. EUR. J. NUTR. 2013; 52: 1–24.

¹⁶Astrup A., et al., *Regular-fat dairy and human health: a synopsis of symposia presented in Europe and North American (2014–2015)*. † NUTRIENTS 2016, 8, 463.

¹⁷Lordan R., A. Tsoupras, B. Mitra, I. Zabetakis. *Dairy fats and cardiovascular disease: do we really need to be concerned?* † FOODS 2018; 7, 29.

¹⁸Guo J. et al., *Milk and dairy consumption and risk of cardiovascular diseases and all-cause mortality: dose-response meta-analysis of prospective cohort studies*. † EUR. J. EPIDEMIOL. 2017 32(4): 269–287.

foods . . .”¹⁹ Another stated, “The present evidence suggests that whole-fat dairy foods do not cause weight gain, that overall dairy consumption increases lean body mass and reduces body fat, that yogurt consumption and probiotics reduce weight gain, that fermented dairy consumption including cheese is linked to lower CVD risk, and that yogurt, cheese, and even dairy fat may protect against type 2 diabetes. Based on the current science, dairy consumption is part of a healthy diet, without strong evidence to favor reduced-fat products; while intakes of probiotic-containing unsweetened and fermented dairy products such as yogurt and cheese appear especially beneficial.”²⁰

Accordingly, IDFA believes that establishing a trial or pilot program in the next farm bill to test whether adding whole and 2% milk to the School Meals Program (SMP) would promote milk consumption rates and reduce food waste in the cafeteria would be beneficial. Such a program would provide important information to Congress and USDA that could help shape future policy decisions regarding the parameters of the SMP in order to encourage better health and nutrition outcomes for participating students.

Question 2. I understand 40% of the milk produced and sold in the U.S. is not transacted within the Federal Order system, according to USDA.^[21] Is the milk you use to manufacture products transacted within or outside of Federal Orders, and what benefits does this choice provide to your company and its suppliers? Has the Class I pricing change from the last farm bill impacted decisions about Federal Order participation?

Answer. Leprino Foods pays the Federal Order class price for all-milk we purchase. However, the technical decision on whether our milk goes into the Federal Order pool is essentially made by our cooperative partners. Accordingly, we do not have specific knowledge as to what percentage of the milk that we use is inside or outside of Federal Orders at any given time. Nonetheless, Leprino Foods believes the Federal Order system, by providing an explicit link between the end products we make and the price we pay for milk, has provided good stability over time to both our company and the farms that supply us milk. This is reflected in the historically steady growth of our milk supply. However, the value of the Federal Order system to Leprino has gradually eroded as Make Allowances, a key component of the formulas, are now distressingly out of date. Regarding the Class I mover, our company does not have any direct knowledge regarding whether the change to the Class I mover has affected Federal Order participation, although some market analysts have pointed out that long-term declines in Class I utilization have impacted Federal Order participation.

Question 3. Farmers have been asking for a national hearing on milk pricing, but the Secretary of Agriculture was quoted in a Brownfield interview earlier this month saying dairy stakeholders will have to all agree on one dairy pricing plan before opening a hearing. How do you see this working without a hearing process to evaluate multiple proposals? How do you see this process moving forward in terms of the farm bill and what happens if it does not?

Answer. When the dairy industry is united and focused on building a future together, we can accomplish almost any shared objective. While the challenges we face today are not new, our approach to the future must be focused on the global competitiveness of our industry. Our industry has grown and evolved considerably over the past 90 years since the FMMO system was established. If we’re going to be a more resilient, sustainable dairy sector able to respond to shifting consumer preferences, we must ensure that the full supply chain remains competitive into the future. Dairy processors continue to support market based FMMO policies as well as a process to develop a collaborative solution that can unify the industry. IDFA, of which we are a member, continues to study the current FMMO system to better understand some of the recent challenges affecting our industry, and our company stands ready to work with other industry stakeholders to develop a path forward on these issues as part of a Federal Order hearing. The dairy industry would be best served if a hearing were to take place as soon as a level of industry consensus is reached on an overarching scope and range for consideration.

¹⁹Mozaffarian D. *Dietary and Policy Priorities for Cardiovascular Disease, Diabetes, and Obesity: A Comprehensive Review.* † CIRCULATION 2016; 133: 187–225.

²⁰Mozaffarian Dariush, *Dairy Foods, Obesity, and Metabolic Health: The Role of the Food Matrix Compared with Single Nutrients.* † ADVANCES IN NUTRITION, Volume 10, Issue 5, September 2019, Pages 917S–923S, <https://doi.org/10.1093/advances/nmz053>.

^[21]A key reason for the Class I pricing change was to increase processor ability to hedge milk and bring stability to the fluid sector to encourage investment in fluid sector, but 7 months after the May 2019 implementation of the new Class I formula, the largest fluid milk processor Dean Foods filed bankruptcy and a few months after that, Borden.

First and foremost, we need to update the make allowances that are part of existing milk pricing formulas to reflect current manufacturing costs. As stated in my written statement, current make allowances are based on 2006 and 2007 costs which are now more than 15 years old, rendering the assumed milk processing costs woefully out-of-date. Coupled with recent inflationary pressures, the need to address this lag is now extremely urgent to maintain a healthy dairy processing sector.

As our industry works to develop a proposal to update current make allowances, we hope that Congress will allow this collaborative effort to continue and not address any milk pricing issues legislatively unless they are supported by all segments of our industry. This type of intervention could have unintended consequences, including the creation of artificial price signals that could lead to over-production or under-production, and allow for market manipulation. That said, prompt resolution to the make allowance issue via a Federal Order hearing remains urgent for our dairy industry.

Question 4. The dairy check-off board representation is weighted geographically by milk volume not by farm numbers and the industry is consolidating with significant geographic shifts in production. As this occurs, should changes be made to the check-off program or should a referendum be conducted so farmers can confirm their support of its direction?

Answer. As a dairy processor, Leprino Foods is not eligible to participate in the Dairy Research and Promotion Program, also known as the Dairy Checkoff Program. This program, which focuses on dairy product promotion, research, and nutrition education, is funded solely by dairy producers and importers. Accordingly, our company does not have a position regarding potential changes to this program.

Response from Travis Forgues, Executive Vice President of Membership, Organic Valley CROPP Cooperative

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question. Mr. Forgues: in your testimony, you pointed to rising transportation and operating costs. Would expanding the DMC Program to account for additional inputs beyond the cost of feed ease this pressure on producers?

Answer. CROPP Cooperative would support Committee exploration in expanding DMC to factor in other variable costs that producers are exposed to such as on-farm energy costs as well as on-farm fuel costs. Determining a national index for such cost factors may be challenging as would overall program cost containment but CROPP believes these options merit review.

These two costs factors (energy and fuel) could be offered as an elective to producers within DMC coverage options akin to policy mechanisms like the Harvest Price Election or the Trend Yield Adjustment that are within Federal crop insurance. Dairy producers would be enabled to choose coverage elements that match their risk tolerance for various inputs.

It should be noted that while numerous CROPP Cooperative farmer-members use the DMC it is not necessarily correlated to the landscape in organic dairy. DMC has no organic elections and there is no mechanism to account for a national organic feed price or national organic milk price. While the current margins are very challenged in the organic dairy market for producers the solution of an organic DMC is not one the cooperative is pursuing.

Given that farmer-level milk pricing in organic is more attuned to consumer preferences and national organic averages are not identifiable, we are not confident development of an organic DMC would be productive or useful. Considering the limited number of organic farm milk buyers, we are also concerned disorderly milk pricing could occur that seeks to shift pay obligations on to the state actor if performance of any of the milk buyers falters.

The current exorbitantly high-cost organic feedstuffs, see attached graphic, is largely the result of international trade distortion caused by:

- discontinuation of the USDA-AMS-NOP recognition agreement with India's Agricultural and Processed Food Products Export Development Authority (APEEDA) in January 2021;^{1*}

¹ *International Trade Policies: India*, Updated: July 13, 2022 † (<https://www.ams.usda.gov/services/organic-certification/international-trade/India>) Agricultural Marketing Service ([usda.gov](https://www.usda.gov)).

* **Editor's note:** references annotated with † are retained in Committee file.

- determination of duties and countervailing duties in March 2022 by the U.S. Department of Commerce in an antidumping investigation of organic soybean meal from India;²
- international conflicts that impede international shipping of organic grains from the Black Sea region.³
- acute drought conditions in certain regions of the U.S. that has decimated crop and forage availability.⁴

This type of market disruption is not a systemic problem but an anomaly that is best addressed by two actions:

1. immediate short-term disaster relief payments, on a historic feed use equivalency, to end-users of organic feedstuffs. These organic livestock producers had no way to plan for, or mitigate these cost realities brought on by trade distortions.
2. Exploration, or/and, extension of existing natural disaster provision such as
 - Emergency Livestock Relief Program and Emergency Relief Program (2021);
 - Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish;
 - Livestock Forage Disaster Program;
 - Livestock Indemnity Program; and
 - Applicable Farm Service Agency farm loan/credit provisions.

Direct disaster relief payments would stem market exits and allow farms to reorganize or recalibrate for the coming year. Immediate payments would complement existing investments by USDA in the Organic Transition Initiative⁵ that seeks to in part improve the volume and reliability of U.S. domestic organic grain and forage crops.

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. Farmers have been asking for a national hearing on milk pricing, but the Secretary of Agriculture was quoted in a *Brownfield* interview earlier this month saying dairy stakeholders will have to all agree on one dairy pricing plan before opening a hearing. How do you see this working without a hearing process to evaluate multiple proposals? How do you see this process moving forward in terms of the farm bill and what happens if it does not?

Answer. Organic dairy pricing and markets are fundamentally disconnected from the FMMO. In our opinion the Orders represent an unmitigated burden on CROPP Cooperative that diminishes resources we might otherwise offer back to producer members or use to market co-op branded and commercial organic dairy products. The Orders provide no balancing function or farmer milk pricing relevancy for our co-op. As it currently stands, approximately 65 percent of all organic dairy is dedicated to Class I. Within non-organic milk only 30 percent is dedicated to Class I with the vast majority being utilized in Class II, III and IV. This dynamic creates and additional onus on organic dairy since Class I traditionally carries the largest pooling obligations.

Any proposals, be in through the USDA–AMS Dairy Programs hearing process, or within the Congressional arena needs to acknowledge and rectify the untenable position that organic dairy is forced to participate in.

Question 2. The dairy check-off board representation is weighted geographically by milk volume not by farm numbers and the industry is consolidating with significant geographic shifts in production. As this occurs, should changes be made to the check-off program or should a referendum be conducted so farmers can confirm their support of its direction?

²*Final Determination in Antidumping Duty and Countervailing Duty Investigations of Organic Soybean Meal from India* † (<https://www.trade.gov/faq/final-determination-antidumping-duty-and-countervailing-duty-investigations-organic-soybean>) (trade.gov).

³*War in Ukraine: Organic in the spotlight as food security debate ignites* † (<https://www.bioecoactual.com/en/2022/05/04/war-in-ukraine-organic-in-the-spotlight-as-food-security-debate-ignites/>) (bioecoactual.com).

⁴*American farmers are killing their own crops and selling cows because of extreme drought* † (<https://www.cnn.com/2022/08/17/business/west-drought-farmers-survey-climate/index.html>)—CNN.

⁵*USDA to Invest up to \$300 million in New Organic Transition Initiative* † (<https://www.usda.gov/media/press-releases/2022/08/22/usda-invest-300-million-new-organic-transition-initiative>) USDA.

Answer. Section 10004 of the Agricultural Act of 2014 (2014 Farm Bill) (*Pub. L. 113-79*)^[1] allows all USDA certified organic dairy producers to file an exemption from the Federal Dairy Promotion Program, carried out by the National Dairy Promotion and Research Board. Organic dairy farmers can voluntarily fill out and submit the Organic Exemption Request form (AMS-15)⁶ annually to exercise the exemption afforded in law.

While organic dairy producers were previously made aware of this option by the National Promotion Research Board that outreach and notice has regrettably been discontinued and falls on the producers to seek the certified organic exemption.

Any modifications to the Dairy Promotion Program should be structured in a way that it does not impede the organic exemption currently allowed.

Question 3. How have the changes to safety net and risk management tools in the last farm bill (*i.e.*, DMC, DRP) worked for your farm and others?

Answer. Changes to the DMC have made the program more attractive to small dairy farmers in the U.S. While most of these farms are not organic producers this segment of farmers is the audience that our family farm-based cooperative is most likely to court as our market position grows or shifts. As consolidation and concentration trends demonstrate more and more pressure on small farmers that are the bedrock of many rural communities, we acknowledge the DMC as a leveling force that can mitigate some episodic margin pressures that might otherwise result in farm departures. As provided in our written and oral remarks we have some farm members that use the DMC but it is not necessarily correlated to the organic dairy landscape. We would suggest a greater priority be placed on enhancing farm resilience in the next farm bill.

Question 4. What unintended consequences have you or other dairy farmers experienced since the Class I pricing change was implemented?

Answer. Please see response to *Question 1*.

Question 5. Should dairy farmers have the right to vote individually on Federal Orders instead of being bloc voted by their cooperatives?

Answer. CROPP Cooperative operates on the democratic principle of one member, one vote. We have consistently maintained that position and would **not** exercise bloc voting if Order reform advanced to a producer vote.

We are in alignment with other industry stakeholders such as American Farm Bureau and National Farmers Union who have advocated for reforms which provide dairy producers an opportunity to cast an individual and confidential ballot during the Federal Milk Marketing Order ballot casting process.

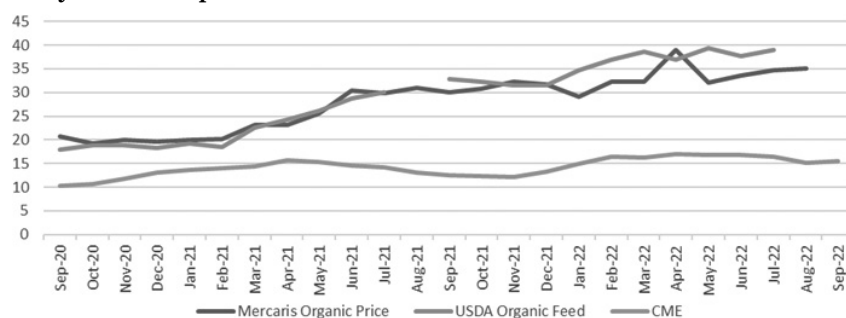
Question 6. What are some of the dairy market access and competitive concerns we should be looking at in crafting dairy policy for the next farm bill?

Answer. CROPP continues to support investments in the USDA Market Access Program as well as a focus on how organic dairy may be positioned to satisfy the cultural preferences of consumers around the world.

Attachment

Domestic Feed Price Analysis

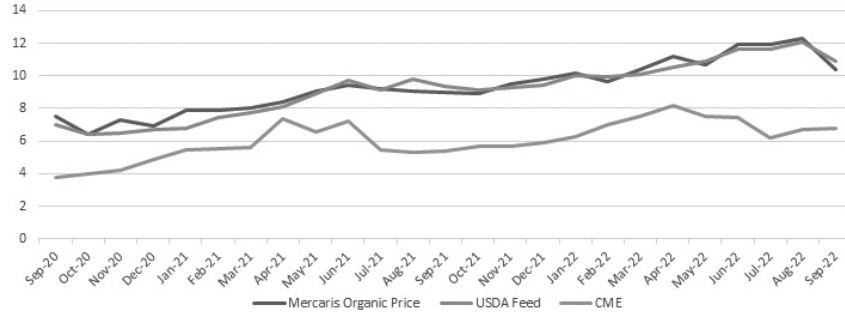
Soybean Price per Bushel



Corn Price per Bushel

^[1]<https://www.govinfo.gov/link/plaw/113/public/79>.

⁶AMS-15—Organic Exemption Request Form † (<https://www.ams.usda.gov/resources/rp-organic-exemption>) Agricultural Marketing Service ([usda.gov](https://www.usda.gov)).



The Mercaris Price is weighted average, delivered transaction price, of USDA Organic feed grade commodities as reported to Mercaris via the Mercaris Market Survey™ in the U.S. and Canada.

	Mercaris Feed Grade Organic Corn Price per bushel	USDA Dealer FOB Elevator/Warehouse Organic Grain	Mercaris Feed Grade Organic Soybeans Price Series
		Spot Transactions Soybean meal per ton	Volume Weighted Average Price per bushel
2017	—	\$827.68	\$19.59
2018	\$9.89	\$849.88	\$19.63
2019	\$9.11	\$857.60	\$19.73
2020	\$8.28	\$844.59	\$22.49
2021	\$9.73	\$1,334.47	\$31.67
2022 thru July	\$11.99	\$1,582.81	\$34.37

Vermont Organic Dairy Sample—2022 Snapshot
Table Represents: Full year 2021 vs. 2022 Jan.–May Income/Expense
Comparison CASH BASIS
 Northeast Organic Farming Association of Vermont (<https://www.nofavt.org/>)—Jen Miller, Farmer Services Director

	Average % Change (n=8)
Income	
Milk Sales	- 4.7%
Other	19.5%
Total Income	- 1.4%
Expense	
Bedding	8.7%
Breeding	- 8.0%
Custom-Hire	- 35.2%
Feed Grain	27.9%
Feed—Forage	- 21.3%
Feed—other	- 47.5%
Total Feed	24.4%
Fertilizer	- 30.1%
Gas Fuel and Oil	75.7%
Insurance	35.2%
Labor	137.3%
Repairs and Maintenance	64.5%
Supplies	34.0%
Utilities	22.1%

Vermont Organic Dairy Sample—2022 Snapshot—Continued
Table Represents: Full year 2021 vs. 2022 Jan.–May Income/Expense
Comparison CASH BASIS

Northeast Organic Farming Association of Vermont (<https://www.nofavt.org/>)—Jen Miller, Farmer Services Director

	Average % Change (n=8)
Vet and Medicine	10.1%
Net Cash income (all cash expenses factored in)	- 50.0%

Response from Marin Bozic, Ph.D., Assistant Professor, Department of Applied Economics, University of Minnesota

Questions Submitted by Hon. Glenn Thompson, a Representative in Congress from Pennsylvania

Question 1. I hear from constituents about the Class I pricing change and their concerns about milk check transparency and lack of competition. Since only the milk for Class I beverage use is required to participate in Federal Orders, did the pricing change in the last farm bill have unintended consequences on class price relationships and Federal Order participation by processors of other voluntary class products? How has this impacted performance and cost of risk management tools like DRP (Dairy Revenue Protection), especially when price protection is needed most during unforeseen market shocks like the pandemic.¹

Answer. Prior to 2019, the Class I milk price, used for beverage milk, was based on the “higher-of” advanced Class III and Class IV skim milk prices. Advanced pricing allows fluid milk processors to know milk procurement costs before they offer pricing lists to retailers. The purpose of the “higher-of” feature was to ensure that beverage milk can always have sufficient reserve supply from manufacturing plants through financial incentives for dairy manufacturers to voluntarily participate (*i.e.*, “pool”) in the Federal Milk Marketing Orders.

With total fluid milk sales volume declining throughout the 2010s, the hope was that a regulatory reform would make it easier for non-traditional Class I milk buyers such as coffehouse chains and quick service restaurant companies to hedge their input costs, then they would consequently be more willing to include cow milk in their menus and products.

The Agriculture Improvement Act of 2018 replaced the “higher-of” mechanism with a simple average of the Class III and Class IV advanced skim prices plus \$0.74 per cwt. The \$0.74 per cwt differential was based on historical data analysis, and intended to keep producers revenue neutral vs. “higher-of” regime. One fragility of the new design is that when the price spread between the Advanced Class III and the Advanced Class IV Skim Milk gets extraordinarily large, the new Class I skim price can be substantially below the levels it would have been under the “higher-of”. On the other hand, when the spread is zero, the new Class I skim price can only be higher than the old price by \$0.74/cwt. This asymmetry was manifested during the COVID–19 pandemic. In May 2020, USDA implemented the Farmers to Families Food Box Program, a very aggressive set of measures designed to support commodity markets as well as millions of U.S. citizens who overnight lost their jobs. Through this program, the majority of support for dairy went to cheese purchases, as cheese is the product that is sufficiently storable and easy to distribute to individuals. Distributing milk powders in a similar way would not be feasible. As such, this intervention resulted in the extreme price spread, with Class III prices in some months during 2020 almost \$8.00 per cwt. higher than Class IV. This level of price spread was unprecedented prior to the pandemic.

This spread led to negative producer price differentials and widespread depooling. While depooling would have happened even under the “higher-of” regime, it was exacerbated by the changes introduced in 2019. Negative producer price differentials hurt the effectiveness of insurance programs such as Dairy Revenue Protection (DRP) through increased basis risk. Further, the uncertainty regarding pandemic USDA policy direction or duration did cause increase perceived risk in dairy markets, which manifested itself in more expensive CME-traded option contracts, and

¹*Measures of growth in Federal Orders*, USDA AMS, May 18, 2022 <https://www.ams.usda.gov/sites/default/files/media/DairyMeasuresofGrowth19472021.pdf>.

thus consequently, more expensive USDA RMA programs such as Dairy Revenue Protection and Livestock Gross Margin.

As for the new Class I pricing system, two main questions seem to be: (1) has it induced desired behavior by non-traditional buyers of fluid milk, and (2) how to remove fragility in its design, and make it revenue-neutral to producers *quicker*.

Question 2. Farmers have been asking for a national hearing on milk pricing, but the Secretary of Agriculture was quoted in a Brownfield interview² earlier this month saying dairy stakeholders will have to all agree on one dairy pricing plan before opening a hearing. How do you see this working without a hearing process to evaluate multiple proposals? How do you see this process moving forward in terms of the farm bill and what happens if it does not?

Answer. I do think that if a hearing is announced, multiple proposals will be submitted. The lead time created by Secretary's request for consensus has been helpful so far, but I anticipate that by the first quarter of 2023, it will be optimal to proceed with the consensus even if there is no consensus among those that are eligible to vote in a USDA hearing. We should never be afraid of honest, intense public debate. Further, it appears clear already that not all problems in the milk pricing system *can* be addressed via USDA hearing process, and some issues are better addressed through the farm bill. Particularly, new regulation that promotes transparency in milk processing costs (for the purpose of setting and regularly updating make allowances), and transparency in farm gate milk pricing are issues for which processors and producers would respectively have a high degree of interest.

Question 3. The dairy check-off board representation is weighted geographically by milk volume not by farm numbers and the industry is consolidating with significant geographic shifts in production. As this occurs, should changes be made to the check-off program or should a referendum be conducted so farmers can confirm their support of its direction?

Answer. The role of dairy check-off has evolved over time and needs to remain nimble to ever changing challenges facing the dairy industry. The original focus on promotion and advertising is now expanded to social license, U.S. dairy export initiatives, and new efforts on issues such as climate change, animal welfare, and benefits of certain conservation practices. A national discussion on the choice different groups should or should not have in distribution of check-off dollars would be welcome.

Question 4. What are some of the dairy market access and competitive concerns we should be looking at in crafting dairy policy for the next farm bill?

Answer. One of the most important issues facing dairy producers is the lack of competition for farm milk. With few exceptions, dairy producers are tied to one processor and have little to no choice in finding alternative outlets for their milk. To prevent abuses of market power, a set of mandatory guidelines for milk supply agreements could be helpful. Even in a situation where a dairy producer ships milk to a dairy cooperative, the business she owns, it would still be helpful to promote transparency in milk pricing, to make it easy for producers to hold cooperative management accountable for business performance.

Federal Milk Marketing Orders still serve a useful purpose for the dairy industry. To maintain their relevance, more regulatory flexibility will be needed regarding the rules for distributing benefits from beverage milk sales to producers whose milk is shipped to dairy manufacturing plants.

Dairy buyers increasingly require ever more stringent sustainability and animal welfare standards. Regulation and support for implementation of new farming practices should be implemented in such way to avoid accelerating pace of consolidation in dairy farming.

ATTACHMENT 1



Measures of Growth in Federal Orders

United States Department of Agriculture

Agricultural Marketing Service, Dairy Program, Market Information Branch

MGFMO-2021

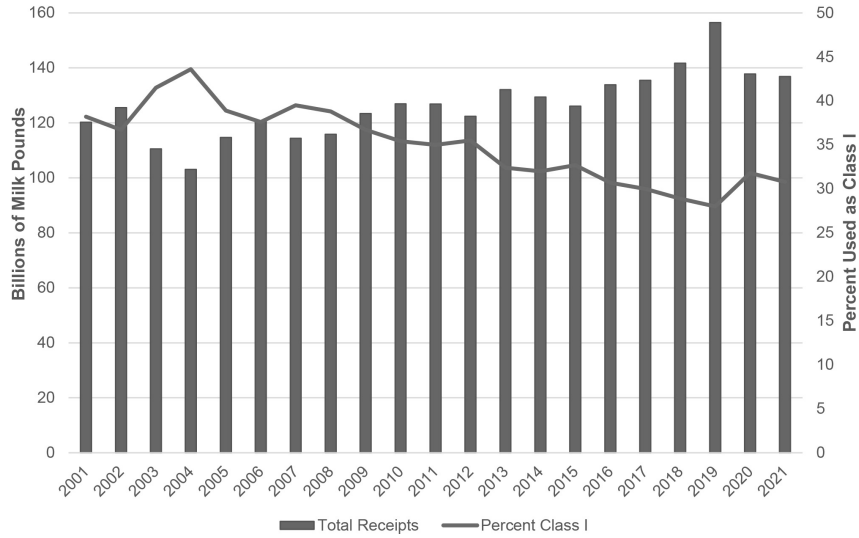
²*Brownfield* article quoting Ag Secretary Tom Vilsack about national pricing hearing <https://brownfieldagnews.com/news/ag-secretary-answers-dairy-consensus-question/>.

May 18, 2022

2021 Highlights

Total Receipts of milk pooled under Federal Milk Marketing Orders totaled 136.8 billion pounds marketed by 23,292 dairy producers across all Federal Orders in 2021. Total receipts were 0.7 percent lower than 2020. Pooled producer numbers were 6.5 percent lower than 2020. The average daily delivery per pooled producer was 6.4 percent higher compared to 2020. In 2021, milk marketed through Federal Orders accounted for 61 percent of all milk sold and 61 percent of fluid grade milk sold to U.S. plants and milk dealers.

Total Receipts of Producer Milk and Percent Used as Class I, 2001-2021



Year	Number of Markets	Number of Pool Handlers	Number of Pooled Producers	Population of Federal Milk Marketing Areas ²	Total Receipts of Producer Milk	Producer Milk Used as Class I	Percent of Producer Milk Used as Class I	
		(number)						(thousands)
1947		29	991	135,830	N/A	14,980	9,808	65.5
1948		20	993	136,363	N/A	15,020	9,852	65.6
1949		33	966	142,995	N/A	17,049	10,104	59.3
1950		39	1,101	156,584	N/A	18,660	11,000	58.9
1951		44	1,343	172,327	39,891	20,117	12,718	63.2
1952		49	1,352	176,752	41,185	22,998	14,672	63.8
1953		49	1,308	183,479	41,506	25,896	15,436	59.6
1954		53	1,333	186,127	43,266	27,140	16,172	59.6
1955		63	1,483	188,611	46,963	28,948	18,032	62.3
1956		68	1,486	183,830	48,575	31,380	19,615	62.5
1957		68	1,889	182,551	57,297	33,455	21,339	63.8
1958		74	1,962	186,155	60,717	36,356	23,309	64.1
1959		77	2,197	187,576	67,720	40,149	26,250	65.4
1960		80	2,259	189,816	88,818	44,812	28,758	64.2
1961		81	2,314	192,947	93,727	48,803	29,859	61.2
1962		83	2,258	186,468	97,353	51,648	31,606	61.2
1963		82	2,144	176,477	100,083	52,860	32,964	62.4
1964		77	2,010	167,503	99,333	54,447	33,965	62.4
1965		73	1,891	158,077	102,351	54,444	34,561	63.5
1966		71	1,724	145,964	98,307	53,012	34,805	65.7
1967		74	1,650	140,657	103,566	53,761	34,412	64.0
1968		67	1,637	141,623	117,013	56,444	36,490	64.6
1969		67	1,628	144,275	122,319	61,026	39,219	64.3
1970		62	1,588	143,411	125,721	65,104	40,063	61.5
1971		62	1,529	141,347	142,934	67,872	40,268	59.3
1972		62	1,487	136,881	144,749	68,719	40,938	59.6
1973		61	1,355	131,565	144,738	66,229	40,519	61.2
1974		61	1,312	126,805	146,264	67,778	39,293	58.0
1975		56	1,315	123,855	150,666	69,249	40,106	57.9
1976		50	1,305	122,675	157,295	74,586	40,985	54.9
1977		47	1,260	122,755	159,504	77,947	41,125	52.8
1978		47	1,189	119,326	161,244	78,091	41,143	52.7
1979		47	1,127	116,447	163,053	79,436	41,011	51.6

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Year	Number of Markets	Number of Pool Handlers	Number of Pooled Producers	Population of Federal Milk Marketing Areas ²	Total Receipts of Producer Milk	Producer Milk Used as Class I	Percent of Producer Milk Used as Class I
		(number)		(thousands)	(million pounds)	(percent)	
1980	47	1,091	117,490	164,908	83,998	41,034	48.9
1981	48	1,058	119,323	166,663	87,989	40,746	46.3
1982	49	1,010	120,743	172,775	91,611	40,807	44.5
1983	46	958	121,052	175,624	95,757	41,091	42.9
1984	45	912	119,033	177,524	91,676	41,517	45.3
1985	44	884	116,765	176,440	97,762	42,201	43.2
1986	44	849	112,322	177,992	98,761	42,725	43.2
1987	43	797	105,882	180,374	98,182	42,876	43.7
1988	42	776	104,141	184,180	100,066	43,141	43.1
1989	41	748	100,291	185,919	95,871	43,367	45.2
1990	42	753	100,397	195,841	102,396	43,783	42.8
1991	40	722	100,267	198,409	103,252	45,033	43.6
1992	40	698	97,803	200,530	107,947	44,914	41.6
1993	38	675	92,934	199,604	103,979	44,805	43.1
1994	38	629	91,397	201,561	107,811	44,866	41.6
1995	33	571	88,717	207,548	108,548	45,044	41.5
1996	32	570	82,947	209,599	104,501	45,479	43.5
1997	31	570	78,422	208,379	105,224	44,917	42.7
1998	31	522	72,402	210,484	99,223	44,968	45.3
1999	31	487	69,008	212,118	104,479	45,216	43.3
2000	11	346	*69,585	*229,473	*116,923	45,989	39.3
2001	11	350	*66,418	*231,692	120,223	45,887	38.2
2002	11	338	*63,852	*233,819	125,546	46,043	36.7
2003	11	331	*58,104	*235,786	110,581	45,843	41.5
2004	10	306	*52,853	*237,988	103,048	44,939	43.6
2005	10	302	*53,032	*234,834	114,682	44,570	38.9
2006	10	314	*52,721	*238,437	120,618	45,304	37.6
2007	10	312	*49,777	*240,774	114,407	45,226	39.5
2008	10	333	*47,854	*243,034	115,867	44,989	38.8
2009	10	251	*46,671	*245,145	123,430	45,262	36.7
2010	10	251	45,918	*247,161	126,909	44,970	35.4
2011	10	241	*43,650	*248,964	126,879	44,383	35.0
2012	10	237	*40,745	*250,788	122,388	43,492	35.5
2013	10	225	*40,043	*252,499	132,100	42,742	32.4
2014	10	223	*39,146	*254,339	129,420	41,420	32.0
2015	10	214	*36,112	*256,225	126,126	41,206	32.7
2016	10	216	*34,689	*258,142	133,846	41,140	30.7
2017	10	217	*32,981	*259,835	135,502	40,642	30.0
2018 ¹	11	233	32,061	*300,717	141,684	40,945	28.9
2019	11	230	*29,468	*302,048	156,510	43,882	28.0
2020	11	228	24,906	*304,861	137,818	43,766	31.8
2021	11	223	23,292	305,078	136,836	42,127	30.8

* Revised. N/A—Data not available.

¹ 2018 includes November and December data from the California Federal Milk Marketing Order which became effective November 1, 2018.

² Population data revised for 2000 to 2021 based on updated Census data.

Year	Percentage of All-Milk Sold		Milk Price at 3.5% Butterfat Content		Average Daily Delivery Per Producer	Gross Value of Producer Milk	
	Fluid Grade	All-Milk	Class I	Blend		Per Pooled Producer	All Pooled Producers
	(percent)		(\$/cwt)			(pounds)	(dollars)
1947	N/A	21	4.65	4.34	302	5,024	682,407
1948	N/A	22	5.29	4.97	301	5,713	779,079
1949	N/A	23	4.67	4.03	327	5,019	717,748
1950	41	25	4.51	3.93	326	4,914	769,442
1951	44	27	5.13	4.59	320	5,605	965,900
1952	46	30	5.37	4.85	356	6,598	1,166,246
1953	49	31	4.91	4.31	387	6,355	1,166,015
1954	49	31	4.62	4.01	399	6,098	1,135,019
1955	51	32	4.67	4.08	420	6,510	1,227,815
1956	51	33	4.90	4.24	466	7,534	1,384,955
1957	53	34	4.87	4.51	502	8,147	1,487,153
1958	56	36	4.72	4.40	535	8,500	1,582,310
1959	60	40	4.79	4.43	586	9,466	1,775,583
1960	64	43	4.88	4.47	648	10,482	1,989,615
1961	67	45	4.91	4.45	704	11,131	2,147,656
1962	70	47	4.80	4.14	761	11,854	2,210,330
1963	70	48	4.78	4.15	821	12,814	2,261,437
1964	70	48	4.87	4.23	888	14,174	2,374,137
1965	70	48	4.93	4.31	944	15,300	2,418,526
1966	70	48	5.55	4.95	994	18,526	2,630,908
1967	71	49	5.85	5.17	1,056	20,321	2,858,351
1968	74	52	6.23	5.53	1,089	22,561	3,195,087
1969	77	56	6.50	5.74	1,164	24,892	3,591,293
1970	79	59	6.74	5.95	1,244	27,636	3,963,311
1971	80	60	6.90	6.08	1,316	29,893	4,225,340
1972	78	60	7.10	6.31	1,372	32,439	4,400,288
1973	78	60	8.03	7.31	1,386	37,461	4,928,514

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Year	Percentage of All-Milk Sold		Milk Price at 3.5% Butterfat Content		Average Daily Delivery Per Producer	Gross Value of Producer Milk	
	Fluid Grade	All-Milk	Class I	Blend		Per Pooled Producer	All Pooled Producers
	(percent)		(\$/cwt)			(pounds)	(dollars)
1974	78	61	9.35	8.36	1,464	45,376	5,753,852
1975	78	63	9.36	8.64	1,532	49,233	6,097,768
1976	79	65	10.70	9.75	1,661	60,277	7,394,486
1977	80	66	10.59	9.69	1,740	62,692	7,695,764
1978	80	67	11.40	10.57	1,793	70,528	8,415,787
1979	80	67	12.88	11.97	1,870	83,262	9,695,637
1980	80	67	13.77	12.86	1,954	93,685	11,007,001
1981	80	68	14.69	13.63	2,021	102,354	12,213,199
1982	81	69	14.63	13.53	2,079	104,573	12,626,510
1983	82	70	14.69	13.53	2,168	109,142	13,211,805
1984	81	70	14.41	13.33	2,104	104,935	12,490,729
1985	80	70	13.88	12.61	2,294	107,871	12,595,522
1986	80	71	13.60	12.38	2,413	111,581	12,515,451
1987	80	71	13.90	12.51	2,542	118,402	12,529,800
1988	79	71	13.42	12.14	2,627	119,261	12,419,974
1989	75	68	14.51	13.30	2,614	129,744	13,012,796
1990	77	70	15.55	13.78	2,796	142,324	14,289,567
1991	76	71	13.30	12.11	2,821	121,479	12,180,354
1992	77	73	14.57	13.12	3,017	146,452	14,323,698
1993	73	69	14.19	12.89	3,073	145,350	13,507,974
1994	75	71	14.75	13.16	3,232	156,253	14,281,193
1995	75	71	14.19	12.79	3,350	157,754	13,995,454
1996	72	69	16.19	14.64	3,442	187,713	15,570,261
1997	71	69	14.36	13.10	3,676	178,424	13,992,366
1998	66	64	16.14	14.92	3,755	202,770	14,681,340
1999	67	65	16.24	14.09	4,148	216,794	14,960,544
2000	72	70	14.24	12.11	* 4,604	207,913	14,468,892
2001	75	73	16.96	14.90	4,959	275,642	18,308,968
2002	77	76	13.69	11.91	5,387	239,520	15,294,802
2003	67	65	14.10	12.12	5,178	242,066	14,066,672
2004	62	61	17.56	15.74	* 5,369	324,119	16,965,368
2005	66	65	17.13	15.07	5,904	334,626	17,747,577
2006	68	67	14.59	12.86	6,264	303,429	15,998,288
2007	63	62	20.81	19.19	6,297	452,097	22,507,219
2008	61	62	20.78	18.24	* 6,633	453,886	21,722,538
2009	66	66	14.40	12.44	* 7,243	339,698	15,856,077
2010	67	66	18.25	16.07	7,572	444,038	20,389,201
2011	66	65	21.97	19.87	* 7,965	577,538	25,211,996
2012	62	61	20.39	18.05	* 8,209	542,121	22,091,337
2013	67	66	21.80	19.44	* 9,039	641,295	25,682,588
2014	63	63	26.14	23.54	* 9,074	793,728	30,472,016
2015	61	61	19.21	16.70	9,559	583,173	21,063,042
2016	64	* 63	17.70	15.38	* 10,557	593,364	20,585,571
2017	64	63	19.31	16.96	* 11,244	696,651	22,981,139
2018 ¹	66	65	17.70	15.51	* 12,449	685,389	21,974,258
2019	73	72	19.74	17.35	* 14,513	* 921,492	27,154,539
2020	63	62	19.70	16.12	15,102	892,007	22,216,324
2021	61	61	19.56	17.33	16,074	1,018,102	23,713,626

* Revised. N/A—Data not available.

¹2018 includes November and December data from the California Federal Milk Marketing Order which became effective November 1, 2018.

Methodology: Growth in Federal Milk Order Markets

Data: The Measures of Growth in Federal Milk Order markets is created using information on the handling of milk obtained from Federal Milk Marketing Order personnel.

The number of Federal Order markets and the number of handlers is at year end. The annual number of pooled producers is the simple average number of producers pooled each month during that year.

The population of Federal milk marketing areas is obtained from published *U.S. Census Annual Estimates of the Resident Population for Counties* in U.S. Census years (1950, 1960, 1970, 1980, 1990, 2000, 2010, and 2020). Annual Federal Order county populations are estimated by the Census Bureau for Federal Order counties for the years between each U.S. Census.

The receipts of producer milk and producer milk used in Class I reflects millions of pounds. Beginning in 1990, due to disadvantageous price situations in some markets, regulated handlers elected not to pool milk that normally would have been associated with the Order. This has reduced, sometimes substantially, the volume of producer milk receipts reported for some markets. This can also affect significantly the comparability of other “Measures of Growth” based on this statistic.

The percent used as Class I is the percentage of all milk pooled that is used to produce Class I fluid products as defined by the *Code of Federal Regulation* (CFR 1000.15).

The percentage of all milk sold is the amount of producer milk pooled on Federal Orders as a percentage of the total amount of milk sold to U.S. plants and dealers, both as fluid grade (Grade A) and all milk sold. The amount of milk sold to U.S. plants and dealers is obtained from the USDA National Agricultural Statistics Service *Milk Production, Disposition, and Income*, 2021 Summary, ISSN: 1949-1506, issued April 28, 2022.

The milk price at 3.5% butterfat content is the weighted average Federal Order minimum regulated milk price for milk at a standardized 3.5% butterfat content. Milk prices are simple averages for 1950-65 and weighted averages for 1970 to date. Milk prices are based on the blend (uniform) price adjusted for the butterfat content, and starting in 1990, other milk components of producer milk.

The average daily delivery of milk per producer is calculated by dividing producer receipts by the number of producers pooled. The annual average is the average of the monthly averages.

The annual gross value of receipts of producer milk per producer is calculated by dividing the total value of all pooled milk as reported by the Market Administrators divided by the simple average of the number of producers pooled each month during the year.

The annual gross value of all receipts of producer milk is the total value of all milk pooled for each respective year as reported by the Market Administrators.

Reliability: The AMS audit staff periodically perform on-site audits on the amounts of producer milk pooled to ensure accurate reporting of pool, utilization, and price information.

Information Contacts

Listed below are the specialists in the Agricultural Marketing Service, Dairy Program, Market Information Branch to contact for additional information. E-mail inquiries may be sent to dpp@ams.usda.gov.

LORIE WARREN CASHMAN, *Chief*, Market Information (202) 720-4405

Dairy Products Mandatory Reporting Program

JESSICA NEWSOME <i>Dairy Products Marketing Specialist, Co-ordinator</i> (202) 260-9091	KERRY SIEKMANN <i>Dairy Products Marketing Specialist</i> (952) 277-2363
HRIPSIME TAMRAZIAN <i>Dairy Products Marketing Specialist</i> (202) 260-8953	JOSHUA MCNEFF DAIRY PRODUCTS MARKETING SPECIALIST (202) 937-4934

Federal Milk Order Information Program

KERRY SIEKMANN <i>Dairy Products Marketing Specialist, Co-ordinator</i> (952) 277-2363	JOSHUA MCNEFF <i>Dairy Products Marketing Specialist</i> (202) 937-4934
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For the most current release, visit AMS Dairy Program (*Dairy Products Mandatory Reporting Program's page*)¹ or Cornell University's Library (*National Dairy Products Sales Report page*).²

To receive e-mail notification for AMS Dairy Program publications, visit *Cornell University's Library*³ and follow the instructions.



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¹ <http://www.ams.usda.gov/rules-regulations/mmr/dmr>.

² <https://usda.library.cornell.edu/concern/publications/zs25x847n?locale=en>.

³ <https://usda.library.cornell.edu/>.

vary by program or incident. Persons with disabilities who require alternative means of communication for program information (*e.g.*, Braille, large print, audiotape, American Sign Language, *etc.*) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at *How to File a Program Discrimination Complaint*⁴ and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

ATTACHMENT 2

BROWNFIELD
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[<https://brownfielddagnews.com/news/ag-secretary-answers-dairy-consensus-question/>]

Ag Secretary Answers Dairy Consensus Question

June 3, 2022 By *Larry Lee**



Dairy producers, processors, and other stakeholders will have to agree on one dairy pricing plan. That's according to Ag Secretary Tom Vilsack who tells Brownfield it doesn't make sense to open up the Federal Milk Marketing Order hearing process until they do. "If you have too many competing proposals, essentially, you're back to the same old same old and it makes it more difficult because it's easier to sort of stalemate the process."

Vilsack tells Brownfield he believes having all of the dairy stakeholders iron out the issues before opening up the Federal Order hearing process has the greatest chance of affecting change in a place where a significant percentage of producers think change is necessary. "I think everybody agrees, or most everybody agrees that changes are necessary. Where there is disagreement is precisely how to structure those changes to deal with the regional difference in dairy, and I think its going

⁴<https://www.ascr.usda.gov/how-file-program-discrimination-complaint>.

*<https://brownfielddagnews.com/author/lee/>.

to be important for folks to sit down, work through those difficulties and see if they can come up with a consensus.”

Last week, the American Dairy Coalition sent Vilsack a letter asking him to clarify if he would allow the hearing process to vet different milk pricing options or if the dairy sector had to agree to something first. The letter says there is an industry-wide consensus that the Class I milk pricing change made in the 2018 Farm Bill needs amending, though there are differences in how this should be accomplished.

ADC board's letter to the Secretary also says any move to increase processor make allowance credits should be linked to achieving transparent milk pricing for farmers.

▶ 0:00 / 2:07  🔊 ⋮

<https://brownfieldagnews.com/wp-content/uploads/2022/06/220602-EX-CERPT-Tom-Vilsack-on-ADCs-dairy-consensus-question-1.mp3>

Editor's note: the audio clip is retained in Committee file.

**A 2022 REVIEW OF THE FARM BILL
(FORESTRY)**

WEDNESDAY, JULY 13, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSERVATION AND FORESTRY,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:03 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Abigail Davis Spanberger [Chair of the Subcommittee] presiding.

Members present: Representatives Spanberger, Kuster, O'Halleran, Panetta, Schrier, Costa, LaMalfa, DesJarlais, Allen, Kelly, Johnson, Miller, Moore, and Thompson (*ex officio*).

Staff present: Paul Babbitt, Lyron Blum-Evitts, Josh Lobert, John Busovsky, Patricia Straughn, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER,
A REPRESENTATIVE IN CONGRESS FROM VIRGINIA**

The CHAIR. This hearing of the Subcommittee on Conservation and Forestry entitled, *A 2022 Review of the Farm Bill: Forestry*, will come to order.

Welcome, and thank you for joining today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today, and we welcome you.

Good morning. I would like to welcome you to today's hearing, *A 2022 Review of the Farm Bill: Forestry*. This hearing is an opportunity to hear from Chief Moore of U.S. Forest Service and a variety of American industry, environmental, and forestry-focused organizations on their thoughts about what is and is not working from the forestry provisions of the 2018 Farm Bill, as well as about the other ways this Committee can better support our forests, support the American workers they employ, and support regional economies that they keep afloat.

Healthy forests, both public and private, are critical to our fight against the climate crisis, and we have seen the urgency of this fight as we prepare for and respond to yet another brutal fire season here in the United States. Forests not only sequester carbon pollution, but they can be critical in increasing land resilience to

flooding, improving water quality, and promoting biodiversity. In addition, healthy forests support rural economies, like those I represent, by providing good-paying jobs across the tourism, recreation, logging, and forest-product sectors. As such, farm bill programs that support innovation in wood products and efforts that make forest restoration more successful are key to promoting rural prosperity.

I look forward to hearing from our witnesses about what is working and where we need to make adjustments to the farm bill programs to protect the health of our forests, grow rural economies, keep Americans in good jobs, and combat the climate crisis.

[The prepared statement of Ms. Spanberger follows:]

PREPARED STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

Good morning, I would like to welcome you to today's hearing, entitled "A 2022 Review of the Farm Bill: Forestry." This hearing is our opportunity to hear from Chief Moore of the U.S. Forest Service and a variety of American industry, environmental, and forestry-focused organizations on their thoughts about what is and is not working from the forestry provisions of the 2018 Farm Bill—as well as about other ways this Committee can better support our forests, support the American workers they employ, and support the regional economies they keep afloat.

Healthy forests, both public and private, are critical to our fight against the climate crisis—and we've seen the urgency of this fight as we prepare for and respond to yet another brutal fire season here in the United States.

Forests not only sequester carbon pollution, but they can be critical to increasing land resilience to flooding, improving water quality, and promoting biodiversity. In addition, healthy forests support rural economies by providing good-paying jobs across the tourism, recreation, logging, and forest-product sectors. As such, farm bill programs that support innovation in wood products and efforts that make forest restoration more successful are key to promoting rural prosperity. I look forward to hearing from our witnesses about what is working and where we need to make adjustments to farm bill programs to protect the health of our forests, grow rural economies, keep Americans in good jobs, and combat the climate crisis.

The CHAIR. I now recognize Ranking Member—whoops, I now recognize the chair of the full Committee if he would like to make any opening comments.

If you will excuse me, I now recognize Ranking Member LaMalfa, the gentleman from California, for opening remarks.

OPENING STATEMENT OF HON. DOUG LAMALFA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Mr. LAMALFA. Thank you, Madam Chair. I appreciate the hearing today and the opportunity to talk about something that is going to be very, very timely as, of course, we are entering the heart of the fire season of 2022. I guess we have a fire season all the time anymore. So what we already have are 5 million acres have burned across the country with nearly 80 large fires currently burning. The Forest Service, Committee, and those watching must understand the West is facing a crisis.

The Forestry Title in the farm bill must be used to increase the pace and scale of forest management. Rural and forested communities nationwide can either benefit from logging and proper forest management or they will suffer from mismanaged forests that threaten them and their towns with wildfire. For decades, forest health has declined as active forest management has stalled or stopped even completely. The West has faced some of the most de-

structive wildfires in our nation's history just in the past several years. Our National Forests have never been in more urgent need of increased management and restoration.

In my district, in northern California, we have seen devastating wildfires in recent years such as the Camp Fire in 2018 that had destroyed the town of Paradise. And last year's Dixie Fire, right at a million acres, one fire, a million acres, as well as the loss of two towns, Greenville and Canyon Dam, completely.

Across the West, we live with these challenges every day. Forest management has reached a crisis level, and we must act accordingly and act now. Forest Service needs to act like there is a crisis and cut trees, thin overgrowth of vegetation, and restore our forests. Tens of millions of acres are at risk of catastrophic wildfire every year. Nothing short of a fundamental change in mindset will fix this crisis. The Forest Service must aggressively cut trees. A 10 year plan aims to thin and do vegetation management on 20 million acres of National Forest System lands and an additional 30 million on other Federal, state, Tribal, and private lands.

But, the National Forest system consists of 193 million acres of land. So are we to sit and watch the remaining 173 million acres go up over the next 10 years? The Forest Service needs additional resources, tools, and authorities in place to do this needed work. Tell us now at this Committee. Delay is unacceptable. People's lives are at risk. The asset is at risk. Wildlife is at risk, habitat, water quality, air quality. We know what the risks are, and we have to live with them yearly.

The Forest Service must make real progress to lessen the risk of catastrophic fire. Through the farm bill, this Committee can require the Forest Service to do the work that is desperately needed and way behind, encourage better forest management, help mitigate wildfire, and grow opportunities for rural communities that rely on our forests as economic agents as they used to. Critically, we need to address the over-litigation of projects the Forest Service needs to do to protect forests from catastrophic fire. For example, just at the end of June, a Federal court stopped two projects that the Forest Service planned to do in Idaho, one entirely in the wildland-urban interface. This example is duplicated across the West, ruining landscapes, putting lives at risk, and destroying rural towns. Over-litigation stops or slows necessary forest management, and sadly, many acres that were tied up in lawsuits have now been completely burnt.

As it did to the people of Feather Falls in northern California, destroying the forests and devastating downstream watersheds, some of those forests will take hundreds of years to recover. Look at the fires in California that killed almost $\frac{1}{5}$ of all the giant sequoias in the world currently being threatened right now. The answer so far has been wrap them with foil or put sprinkler systems out? Yes, that will help right now in the short-term, but real work needs to be done. I am glad I am part of a piece of legislation to help do so. But it needs to happen now. The last recorded evidence of mass giant sequoia mortality occurred in 1297. That was the year that William Wallace defeated the English at the Battle of Stirling Bridge.

This can't be stressed enough. Our public lands are facing a crisis, and the Forest Service must act now. Currently, more than 500 sequoias are being threatened in the Mariposa Grove near Yosemite National Park by the Washburn Fire. Well, this is Park Service, not Forest Service. It is basically the same issue. Firefighters on the ground are battling to save these trees in the town of Wawona, and I want to thank them for their efforts every fire season to fight the fires that threaten towns and our public lands. But more work must be done pre-fire season so firefighters are not placed in situations of catastrophic fire. These extremely hot and fast-moving fires are a direct result of poor management and make the firefighters' jobs more difficult and even more deadly. This must end. We must properly manage the forests.

The Forestry Title of the farm bill contains a variety of provisions. We must expand the management authorities in this law. For example, the 2018 Farm Bill contained a renewal of the insect and disease categorical exclusion and expanded it to include hazardous fuels reduction. These should be increased in size dramatically. Our forests need it. For many acres, it is too late as they have already been destroyed by high-intensity wildfire.

Public lands are currently not good neighbors. They are tinderboxes waiting to go up in smoke. So while the private-sector is held to a higher standard if they have an accident or it turns out they didn't, they get sued by the governments, but nobody gets to have a say on when Federal lands or other lands start a fire and affect private lands.

This Committee must expand the Good Neighbor Authority to encourage partnerships with the Forest Service and the states, counties, and Tribes that are harmed most by fire. We must also coordinate with private industry to add value to the timber and the slash that must be removed from our public forests. The 2018 Farm Bill modified the Community Wood Energy Program and continued a research and development program to help encourage new markets and infrastructure for forest products and advance tall wood building construction in the United States. But we must also open new mills and other facilities to ensure that they have a consistent, reliable source of Federal timber to feed those mills over a period of time, at least 30 years. You are not going to build something and invest hundreds of millions of dollars if you can't count on a feedstock. The Forest Service needs to be behind guaranteeing that and not giving us roundy-roundy answers.

The 2018 Farm Bill expanded authorities that have focused a landscape-scale restoration program on cross-boundary restoration and authorize new tools that allow for the collaborative treatment of hazardous fuel loads on bordering non-Federal lands. We must continue this progress by expanding partnerships and authorities that allow for increased landscape-scale treatments. We are seeing landscape-scale fires—the Dixie Fire, again, nearly a million acres—so we need forest management that can match that scale.

Chief Moore, and to all our witnesses, our public lands are indeed facing a crisis. I know that is not news, but the reaction needs to be much stronger. As we begin the process of writing this next farm bill, what authorities need to be added or expanded to address

the catastrophic fires that are threatening the West? I look forward to the answers. Madam Chair, I yield back. Thank you.

The CHAIR. Thank you. I now recognize Ranking Member of the full Committee, Mr. Thompson, for any opening comments that he would like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, thank you, Chair Spanberger and Ranking Member LaMalfa, and happy National Forest Week. I much appreciate today's hearing to review the Forestry Title of the 2018 Farm Bill as it is a key interest to Pennsylvania's 15th Congressional District, the home to Pennsylvania's only National Forest, the Allegheny.

The forestry provisions have progressed in the past several farm bills and will again be an important part of the next reauthorization. As a former Chairman of the Conservation, Energy, and Forestry Subcommittee, I can confidently say this Committee worked hard in both 2014 and the 2018 Farm Bills to provide tools and authorities for the Forest Service to better manage our forests, increase partnerships, and encourage new markets for forest products. Given the challenges before the Forest Service and forest managers nationwide, the next farm bill must build on these reforms and provide additional authorities for those very same purposes and more.

Although the recent infrastructure law provided more than \$3 billion to the Forest Service for restoration and fire prevention activities, funding alone won't address the urgent needs that we have in forest communities and across the National Forest System. If we truly are going to make progress on the tens of millions of acres that are overgrown and in need of immediate treatment, we need every tool available and consider others that will promote forest health, and help meet our long-term management goals.

Now while some continue to call for reworking the conservation programs in title II to emphasize climate benefits, forestry and management must also be a major part of that conversation. The farm bill's Forestry Title presents an enormous opportunity to generate climate benefits, through what I would call *natural solutions* and on a broad landscape scale. Through active management, we can restore our forests and reduce the intensity and risk of wildfire. Simultaneously, we can create stronger carbon sinks that will sequester even more carbon and forest products that indefinitely store it. According to the Forest Service, our forests are currently sequestering 14 percent of all U.S. emissions and could nearly double that through active management.

Now, we can't have a healthy environment without a healthy economy and *vice versa*. And with that in mind, we also need to be doing more to allow for increased timber harvesting in the National Forest System. Sustainable harvests will encourage both forest health and the economic health of the forested communities in many rural counties.

Chief Moore, thank you for being here today and sharing your perspective as we begin the 2023 Farm Bill process. I also would like to welcome all of our witnesses on panel two for your time and

expertise today. We look forward to today's testimony and working with you as we begin developing the next farm bill.

Thank you, Madam Chair, and I yield back.

The CHAIR. The chair would request that other Members submit their opening statements for the record so that witnesses may begin their testimony to ensure that there is ample time for questions.

I am pleased to welcome two panels of witnesses to the Subcommittee on Conservation and Forestry of the larger Agriculture Committee today. On our first panel, our witness is Chief of the U.S. Department of Agriculture's Forest Service, Mr. Randy Moore. Mr. Moore is accompanied by Deputy Chief of the National Forest System of the Forest Service, Mr. Chris French, and Deputy Chief of State and Private Forestry of the Forest Service, Ms. Jaelith Hall-Rivera.

Chief Moore, you now have 5 minutes to deliver your opening testimony. The timer should be visible to you on your screen and will count down to zero, at which point your time has expired. Chief Moore, please begin whenever you are ready.

**STATEMENT OF RANDY MOORE, CHIEF, U.S. FOREST SERVICE,
U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.;
ACCOMPANIED BY CHRISTOPHER FRENCH, DEPUTY CHIEF,
NATIONAL FOREST SYSTEM; Jaelith, HALL-RIVERA,
DEPUTY CHIEF, STATE AND PRIVATE FORESTRY, USFS,
USDA**

Mr. MOORE. Chair Spanberger, Ranking Member LaMalfa, and Members of this Subcommittee, I appreciate the opportunity to testify before you as my first time as Chief of the U.S. Forest Service. I am joined today, as indicated, by my Deputy Chief, Chris French, the National Forest System's Deputy Chief, and as well as Jaelith Hall-Rivera, Deputy Chief for State and Private Forestry.

My testimony today will focus on the important role that the farm bill has played in providing authorities to carry out the agency's work, including with our partners, to steward the nation's forests. The Forest Service, along with many of our partners, work together to sustain healthy, resilient landscapes for all the services the nation's forests and grasslands provide. For instance, forests are America's largest terrestrial carbon sink, which was indicated earlier. Our forests plus harvested wood products and urban forests offset almost 15 percent of the nation's total carbon dioxide emissions and almost 12 percent of all greenhouse gas emissions.

The National Forests alone are the source of drinking water for more than 60 million people living in 3,400 different communities across 36 states, the value of \$367 billion for the City of Los Angeles alone. Forest products play a key role and an important role. In Fiscal Year 2021 the National Forest generated 2.9 billion board feet of timber. That is enough to build 180,000 new single-family homes.

The main way that Americans enjoy and use their National Forests and Grasslands today is for outdoor recreation. We have 370,000 miles of roads to give people access to their favorite spots. Our visitors have 159,000 miles of trails that they can use across the landscapes of all kinds. In 2020, the National Forest System

supported more than 370,000 jobs and contributed more than \$35 billion to the GDP.

Past farm bills have provided and expanded on various authorities that have given the agency and our partners critical tools for managing forests for many goods and services that they provide to the public. These tools have been instrumental in accomplishing our collective work on the ground. For instance, the stewardship contract authority, which was reauthorized in 2014 Farm Bill, has promoted closer public-private working relationships by using the value of timber or other forest products to offset the cost of restoration activities. Over the past 4 fiscal years, use of this authority has resulted in over $\frac{1}{2}$ a million acres of fuel treatments in the wildland-urban interface, 750,000 tons of biomass for energy production, and nearly 400 miles of stream habitat restored for other services.

In addition, Congress permanently authorized the Good Neighbor Authority in the 2014 Farm Bill. This authority allows the agency to more efficiently work with states to perform restoration on Federal lands. And in the 2018 Farm Bill, Congress expanded GNA to include federally recognized Indian Tribes and county governments to allow funds received by the sale of timber sales to be used by the state to accomplish additional work under this authority. To date, the Forest Service has completed 339 Good Neighbor agreements across 38 states, nine Tribal GNA agreements, and seven agreements with counties to accomplish a variety of restoration work.

Timber harvest under GNA continues to grow. Two hundred and seventy-three million board feet were sold in 2021 under this authority, and that is an increase from 89 million board feet in 2018.

The 2018 Farm Bill also reauthorized the Collaborative Forest Landscape Restoration Program, and it allowed for the agency to issue a waiver to extend existing projects up to an additional 10 years. The authority has allowed us to build partnerships and involve communities in decision-making process. The Wood Innovation Grants Program, which was formally established in a previous farm bill, supports proposals that expand and accelerate wood products and wood energy markets to support managing the nation's forests. For instance, the program has helped catalyze U.S. growth in mass timber construction with over 1,400 buildings built, either under construction or in design, and the rate is accelerating each year.

The Forest Service is and will be using prior farm bill and other authorities to carry out the 10 year implementation plan associated with our Wildfire Crisis Strategy to deliver funding provided through the bipartisan infrastructure law. A couple of examples include: in central Washington, the Okanogan-Wenatchee National Forest will use, among other authorities, a GNA agreement with the state to reduce the risk on over 2 million acres over 10 years. In Oregon, the Deschutes National Forest using authorities under the GNA and CFLRP and others to carry out an expected 50,000 acres of treatment over the next 3 fiscal years to reduce the wildfire risks to central Oregon communities.

Throughout implementation of the strategy, we will continue to work with our industry partners through programs like Wood Inno-

vation Grants Programs to develop new and innovative uses of wood and develop markets of biomass for small diameter material.

In closing, I want to thank the Committee for your efforts, and I look forward to working with you as the Committee drafts the next farm bill. Thank you, and I look forward to your questions.

[The prepared statement of Mr. Moore follows:]

PREPARED STATEMENT OF RANDY MOORE, CHIEF, U.S. FOREST SERVICE, U.S.
DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, thank you for the opportunity to address the Subcommittee regarding the U.S. Department of Agriculture (USDA), Forest Service's implementation of the 2018 Farm Bill forestry programs.

Over the past 5 decades, the Forest Service has received authorization for numerous valuable programs through the farm bill that support our mission to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. These authorizations have supported both our efforts on our Federal lands, as well as ways to sustain and support the health and conservation of our nation's state and private forestlands. Throughout the 2018 Farm Bill, principally in the Forestry Title, there are many authorities and provisions that assist the Forest Service in accomplishing our priority work, particularly ecological restoration, support to communities, vital voluntary conservation efforts, and reducing hazardous fuels. Together, these provisions demonstrate our commitment to shared stewardship of National Forests and Grasslands, while strengthening relationships with states, Tribes, and local communities.

The Forest Service is using the 2018 Farm Bill authorities to help advance the agency's 10 year wildfire crisis strategy. Along with the tools and investments Congress enacted in the 2018 Consolidated Appropriations Act and the Infrastructure Investment and Jobs Act (IIJA), USDA is using farm bill authorities to combat the growing wildfire risk, create new markets and technology for wood products, and working to restore forests through partnerships and collaboration across landscapes. Today, I will focus on the implementation of the farm bill authorities and highlight the accomplishments achieved through use of the reauthorized Insect and Disease Categorical Exclusion (Section 603 of the Healthy Forests Restoration Act), the expanded Good Neighbor Authority, the new Tribal forestry demonstration project, the Collaborative Forest Landscape Restoration Program, and the Wood Innovation grant programs.

The 2014 Farm Bill's Insect and Disease provisions set requirements for designating affected National Forest System areas, enabling streamlined environmental review procedures to expedite projects that reduce the risk and extent of, or increase the resilience to, insect or disease infestations. As of June 2022, approximately 77.5 million acres across National Forest System lands have been designated as already experiencing, or at risk of experiencing, insect and disease infestations. The 2014 Farm Bill also created a statutory Categorical Exclusion for certain insect and disease projects that met certain stringent criteria. The 2018 Farm Bill extended this Categorical Exclusion authority and allowed projects that reduce hazardous fuels to be carried out in the designated treatment areas (Section 8407). As of May 2022, the Forest Service has signed decisions for or is in the process of analyzing 274 projects encompassing 538,129 acres in 31 states using the Insect and Disease Categorical Exclusion.

The Good Neighbor Authority (GNA), first authorized in the 2014 Farm Bill, allows the Forest Service to work with states, Tribes, and counties to perform treatments across larger landscapes through partnerships. In 2014, this authority allowed the Forest Service to enter into cooperative agreements or contracts with states and Puerto Rico to perform authorized watershed restoration and forest management services by our partners on Federal lands. The 2018 Farm Bill expanded this valuable authority to Tribes and counties and allows states to maintain revenues generated from the sale of National Forest System timber for future GNA activities (Section 8624). To date, the Forest Service has completed 339 GNA agreements to accomplish a variety of restoration work: 38 state agreements, nine Tribal agreements, and seven agreements with counties. This authority is extremely beneficial because it improves the Agency's access to state, Tribal and county expertise to accomplish restoration and hazardous fuels reduction work across larger landscapes. This authority also supports working with and learning from our partners so we can apply collective knowledge broadly on public lands.

USDA is responsible for managing millions of acres of Federal lands and waters that contain cultural and natural resources of significance and value to Tribes, including sacred religious sites, burial sites, wildlife resources, and sources of Indigenous foods and medicines. The 2018 Farm Bill authorized a new Tribal forestry demonstration project to allow Tribes to propose projects on National Forest lands to drive forest restoration and protect Tribal resources from threats such as fire, insects, and disease. As of the second quarter of Fiscal Year 2022, agreements have been executed with Confederated Tribes of the Colville Reservation, Leech Lake Band of Ojibwe, Pueblo of Acoma, Pueblo of Jemez, and The Tulalip Tribes.

The 2018 Farm Bill reauthorized and increased the authorization for appropriations for the Collaborative Forest Landscape Restoration Program (CFLRP) (Section 8629). Through the CFLRP, we are able to accomplish critical collaborative, science-based ecosystem restoration of priority forest landscapes. These projects produce significant outcomes on the landscape, including reducing the risk of catastrophic wildfire, eradicating invasive plants, restoring stream habitat, and accomplishing vital forest vegetation work through planting, seeding, and natural regeneration. Since the beginning of the program through Fiscal Year 2021, the Forest Service has funded 24 CFLRP landscapes nationwide. These projects have advanced treatment on over 4.5 million acres to reduce the risk of catastrophic wildfire, established 224,000 acres of forest vegetation, and enhanced over 1,700 miles of stream habitat. In addition, CFLRP also has significant economic benefits, supporting over \$2.3 billion in total local labor income. In April 2022, USDA announced an additional \$31.1 million in funding for 15 CFLRP projects, including six new projects.

The 2018 Farm Bill codified the existing Wood Innovation Grant Program and established a new program, the Community Wood Grant Program. These grant programs support Forest Service efforts to build innovative markets for wood products and wood energy that support rural economies with more jobs and income. The Wood Innovations and Community Wood Programs help support more and better markets and capacity for sustainable forest management and hazardous fuels reduction. The Wood Innovation Grant Program (Section 8643) allows the Forest Service to award grants to individuals, public or private entities, or state, local or Tribal governments for the purpose of advancing the use of innovative wood products. The program stimulates and expands sustainable wood products and wood energy markets, with a focus on mass timber, tall wood buildings, renewable wood energy, and technological development that supports fuel reduction and sustainable forest management. The Community Wood Grant Program (Section 8644) supports facility expansion or new equipment for thermal wood energy (wood-to-heat) projects and innovative wood products manufacturing. In Fiscal Year 2022, the Forest Service awarded over \$32 million in grants for 99 projects using these two authorities.

Our 10 year Wildfire Crisis Strategy aims to increase science-based fuels treatments by up to four times previous treatment levels, especially in those areas most at risk. Fuels treatments by the Forest Service, together with partners, have made a difference over the years. However, the scale of treatments is outmatched by the rapid increase in the scale and severity of wildfires as climate change accelerates. This Strategy calls for treating up to 20 million additional acres of National Forest System lands over the coming decade, and working with partners, including colleagues at the U.S. Department of the Interior, to treat up to 30 million additional acres on adjoining lands of multiple ownerships, while building a long-term maintenance plan. The intent for these treatments is to reduce the trajectory of wildfire risk to communities, municipal water sources, and natural resources, and to restore fire-adapted landscapes so they are more resilient.

USDA is thankful that Congress has provided extensive tools, programs, and funding for partnerships and landscape scale work to carry out the science-based strategy. Many of these authorities have come through the farm bill, including GNA agreements, CFLRP, and stewardship contracts. Examples of initial projects under the strategy include:

- **Central Washington Initiative.** The Okanogan-Wenatchee National Forest in Washington will use, among other authorities, a GNA agreement with the Washington Department of Natural Resources and stewardship agreements for timber, fuels, and aquatics projects. The project is intended to reduce the risk of wildfire and restore cross-boundary landscapes on 2.45 million acres over 10 years (1.35 million acres of National Forest System lands; 1.1 million acres on other land ownerships).
- **Colorado Front Range.** Due to years of fire suppression, Colorado's Front Range forests are unhealthy and lend themselves to intense wildfires. These forests are key sources of water for the Front Range, making it critical to reduce the likelihood, intensity, and size of fires to reduce the level of sedimentation

in reservoirs. The Arapaho and Roosevelt National Forests and Pike-San Isabel National Forests are utilizing GNAs (among other tools) to carry out an integrated approach to conducting strategic fuels treatments on over 36,000 acres over the next 3 fiscal years to reduce fire risk and effect for people and businesses in the area.

- **Central Oregon.** Central Oregon is experiencing the most extensive community growth in the state with some communities increasing almost 30 percent in the past 10 years. Hundreds of thousands of acres of Federal land are immediately adjacent to communities and subdivisions, and treatment of these areas is critical to reduce wildfire risks. The Deschutes National Forest is working with several partners to restore forested landscapes while reducing wildfire risk to life, property and economic interests in and adjacent to the communities of Bend, Sunriver, LaPine and Crescent. The Forest Service is using authorities under GNA, CFLRP and others to carry out an expected 50,000 acres of treatments over the next 3 fiscal years.
- **Kootenai Complex.** The Kootenai National Forest in Montana is working with several partners to treat hazardous fuels across 150,000 acres within high-risk fireheds surrounding the communities of Libby, Troy, Eureka, Stryker, Fortine and Trego. These communities are at a particularly high risk of being impacted by severe wildfire events. The Kootenai National Forest has a GNA agreement with the state to increase the pace and scale of treatments across the forest using funds from the IIJA in order to mitigate wildfire risk and reduce community exposure.

The wood products industry is an important partner for helping achieve restoration outcomes and reduce wildfire risk under this Strategy. For example, the Kootenai Complex Project will also complement an ongoing county-wide effort to increase infrastructure capacity for wood product utilization. Throughout implementation of the Strategy, we will continue to work with our industry partners through programs like the Wood Innovation Grant Program to develop new and innovative uses of wood and develop markets for biomass and small-diameter materials.

Significant effort goes into drafting a new farm bill every 5 years. USDA looks forward to our work with the Committee to ensure the Forest Service has the tools it needs to address the wildfire crisis as well as successfully implement the full breadth of the Agency's mission. We appreciate your efforts and look forward to providing input as you frame and develop the 2023 Farm Bill.

The CHAIR. Thank you very much.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us to get to as many questions as possible. Please keep your microphones muted until you are recognized.

I now recognize myself for 5 minutes.

Chief Moore, over the past couple of years, the Subcommittee has heard repeatedly about the promising developments and innovations from the wood and forest products industry that offer cost-competitive, durable, climate-friendly building materials, from nanocellulose additives for cement to cross-laminated timber. We really see that the forest industry is leading the way on de-carbonizing our building sector. And in 2018, Congress authorized the Wood Innovation Grant Program at the U.S. Forest Service to help fund these sorts of innovations.

So I would like for you to speak to what progress has been made since 2018 in the implementation of this program. What kind of products have been funded so far? And then comment about the current funding level, whether that has been sufficient to meet the demand.

Mr. MOORE. So thank you, Madam Chair. The previous farm bill—let me start by saying that we have seen a lot of accomplishments under this bill. And we are so thankful to Congress for their

foresight in passing the bill. And we look forward to the next farm bill.

Looking at the Forest Legacy Program as an example, since its creation in 1990, the Forest Legacy Program has permanently protected about just under 3 million acres of land that are considered to be working forested lands. And of those acres, over 80 percent remain in private ownership protected under the conservation easements. And these acres that are conserved through this program are really protected in perpetuity, and we continue to manage those as working forested lands.

One other example and looking at that program, we have invested in Federal funds just under \$1 billion that have been leveraged by an additional \$1 billion in non-Federal costs. And what this shows is that there is strong support both at the local level as well as the state level for the program. So we are having a lot of progress in this particular part of the program, and we look forward to continued work in these areas.

In terms of the Wood Innovation Grants, that is one that this Congress and this Committee should be really proud of. It has been a catalyst for a number of new opportunities across the country. And I will give you an example. Earlier in some of my testimonies I talked about how we have a lot of small-diameter, low-value-type material across the landscape, particularly in the West, and what we needed to focus on is wood innovations. And as I mentioned in my opening statements, so far, that program has really taken off. We have 14 new buildings that have been built using cross-laminated timber, and that really has spurred a lot of developments and a lot of support across the country for utilizing small-diameter, low-value material.

The CHAIR. For those who might be watching who might not be familiar with some of what you are discussing, could you explain why that is important that you can utilize that small-diameter, low-value timber and what that might mean for forest landowners and for the forestry industry?

Mr. MOORE. Yes, if you look—let me focus primarily across the West right now where we are having a lot of the unwanted wildfires across that landscape. And when you look at the type of material that a lot of our industries are set up, it is looking a lot at commercial sawlogs and the larger trees if you will. And what we have that has been growing on a National Forest since 1935, it is a lot of small-diameter, low-value-type material. And so this material is not really suitable for a lot of the infrastructure that we currently have in our country. And what we have been doing is cutting the small-diameter, low-value stuff, piling it up, and then burning it. And what we have been trying to push is wood innovation so that you could utilize this material that we are piling and burning.

And so with the cross-laminated timber as an example, that market has really taken off. We are creating new industries from the West to the Southeast where we are beginning to see production and facilities to utilize this type of material. We have awarded grants to look at working with private industries to refine the technology with our research people. And I am just happy to say that that is an industry that is beginning to really take off. And I see

a lot of utilities in the future in terms of how it is going to help us remove some of that material off the landscape.

I will give you an example why that is important and then I will cut. When you look at the types of ecosystems that we have routinely been managing, a healthy, resilient landscape would be about 40 to 60 trees per acre. What we currently have on these landscapes is anywhere between 800 or more trees per acre. And so if we are going to look at reducing the wildfire hazard potential, we have to remove a significant number of trees and other materials off the landscape. And so creating other industries to utilize material, it just works to create jobs in small communities, but it also creates healthy, resilient landscapes, which—

The CHAIR. Thank you for that answer. Certainly, I think the program is tremendous and benefit economically to communities but also to forest health, and certainly the ability to build buildings using cross-laminated timber is tremendous. I will follow up with written questions related to some of the funding and program dollars that have gone out the door so far. But thank you for your answer.

At this point, I now recognize the gentleman from California for 5 minutes.

Mr. LAMALFA. Well, thank you again, Madam Chair. Thank you, Chief Moore and your colleagues there, for joining us.

Chief, we have known each other a long time, and you may remember about 10 years ago the first time we met was at that park in Sacramento because we had a lockdown on the building we were supposed to meet. And you and I and Tom McClintock and a couple others were there. And so that has been 10 years. And so now, I have seen lately where the Forest Service has devised a 10 year plan to treat 20 million acres of National Forest Service land and an additional 30 million acres of other lands. And so I would kind of count that as we are 20 years in, in a way?

So the Forest Service oversees nearly 200 million, 193 million, so if the plan is to treat 20 million over 10 years, that is ten percent of the total holdings. So on a per-year basis, that averages out to 2 million per year, so basically, we are at the point where we are treating one percent per year, which is about the same more or less pace and scale to use that terminology, which is important, as what we are already at, one percent per year. So that means instead of 10 years or 20 years, we are talking about 100 years just to get over the land one time and if it can be applied to all that. It kind of reminds me of painting the Golden Gate Bridge. They never stop. They start at one end and they get to the other, only it isn't a 100 year cycle.

So I have lost three-plus communities in my own district, and there are many more that are looking down the barrel of the gun of even more fires, year in, year out. And my people at home are not going to be excited about a one percent per year treatment. This needs to be dramatically increased. And so in the plan also it is talking about 30 million acres that are not National Forest System, but there are others, other Fed lands, state lands, Tribal and private lands. Why is the focus 30 million acres on others when they should be doing that themselves? Why is the Forest Service intervening on developing or helping them when they are

not even keeping up with more than one percent on their own? Why does that plan look that way?

Mr. MOORE. So, Congressman LaMalfa, thank you for that question. The best available science tells us that, on average there is 80 percent of the risk exposure to buildings and wildland-urban interface occurs on less than 20 percent of the total landscape. And we also know that the size and placement of hazardous treatments, it matters and it makes a difference. And so when you look at treating 20 million acres of National Forest System's lands, that represents more than a 20 percent that would have a positive outcome on the 80 percent of exposure.

The other piece, we use that same method to come up with the 30 million for private and other Federal and state lands. It is the same method. And how we placed treatments on the landscapes matters as well.

Mr. LAMALFA. But why intervene on state lands, private lands, Tribal lands that are not your jurisdiction?

Mr. MOORE. Well, when you look at the fires and how it appears on the landscape, it doesn't really care about jurisdiction or boundaries. And so what we have been trying to do—

Mr. LAMALFA. No, but those folks would be keeping up with their own if they were allowed to, especially private. It is hard to get a timber harvest permit in California. I worked on that and got a little help. But the private doesn't really need a lot of help other than the ability to go do it. We have had their lands burned extensively, so that we are going to need cooperation from the Forest Service so the private entities will have actually something to cut once the salvage period is over with on somebody's firescapes. So why does the private, why does the states need Federal Forest Service help?

Mr. MOORE. Well, again, Congressman, when you look at what is really happening, the majority of fires start on private lands. And we know that once fires start, regardless of where they start, that it doesn't care about boundaries. And so unless we can all come together to look at treating landscapes with multiple jurisdictional boundaries, we are not going to have the positive outcome on the ground that we need to have in order to have that fire behave.

A lot of these landscapes in the West are created from fire. And in order to maintain that, we need to also continue to have fire but not the unwanted wildfires that we are currently having.

We also know that as we look at treating the landscape at a larger level, the treatment that works best is to go in and do thinning to remove some of those trees that I mentioned to you—

Mr. LAMALFA. No, I got that, sir, 40, 50 trees per acre, mature trees is the right amount, not 500. So is the Forest Service actually engaging—we talked last year at the end about you were assessing the damage from the fires and such, but what work is being done to salvage the million acres in the Dixie Fire and the other various fires? At a timeline—when you talked about you get value out of the trees, when you are talking the small-diameter ones, but you can get value out of these trees, let me ask you this more directly. Are your offices open yet? Because just a few months ago for Christmas tree permits, people couldn't even go into an office and walk in the door because everything's all shut down due to COVID

situation. Are we fully engaged in having open offices and people doing work?

Mr. MOORE. Congressman, I would like to know where you are seeing offices closed. Our offices have always been open. And if they were not open—

Mr. LAMALFA. Oh, come on.

Mr. MOORE.—we always had ways for people, the public to come in and purchase permits of any kind.

Mr. LAMALFA. Well, I will name a couple up in northern California a little later then. But the bottom line, are they fully engaged in doing normal, pre-COVID-type work out in the woods, handling paperwork in the offices that need to be done and getting the permits out?

Mr. MOORE. They are and they have been.

Mr. LAMALFA. Thank you.

The CHAIR. I now recognize Congresswoman Kuster for 5 minutes.

Ms. KUSTER. Thank you, Madam Chair.

Sustainable forestry and conservation are in our blood in the Granite State of New Hampshire. We are home to the White Mountain National Forest, and we appreciate all the Forest Service does to protect and maintain this treasured landscape.

I want to appreciate our colleagues on both sides of the aisle talking about the impact of climate change in our forests today. We are the second-most forested state in the country right behind our friends in Maine. From wood products to outdoor recreation, forests are an essential backbone to our economy, and like Mr. LaMalfa, to my district.

This hearing is a good opportunity to take stock of where we are as we look ahead to the 2023 Farm Bill. We secured a lot of forestry wins in the 2018 Farm Bill, the Great American Outdoors Act (Pub. L. 116–152), the bipartisan infrastructure package, but there are continuing challenges that we are discussing today that we need to address.

In my state, our small forest operations need more outlets for wood products, particularly low-grade wood that can serve as a reliable, locally grown source for heat. And that is why I have introduced legislation like the Biomass Thermal Utilization Act (H.R. 3251).

Our forests also remain vulnerable to invasive pests like the emerald ash borer, as well as to the effects, as I have mentioned, of climate change. We have seen an increase in temperature and a reduction in humidity in New Hampshire. And I know from a recent trip that that is exactly what is going on out in the West in Yosemite.

The good news is that forests are the most powerful clean air technology on Earth, reducing the net amount of CO₂ in the atmosphere as the trees grow. Public- and private-sector stakeholders continue to seek proactive ways to increase the climate contributions of working forests and forest products, but that requires reliable government data to inform these decisions. The Forest Service Forest Inventory and Analysis Program is the only source of forest data that is national in scope and consistent in measurement. I re-

cently co-led a letter calling for increased funding for the FIA, which I have been able to secure in the House spending package.

Chief Moore, welcome. We are delighted to have you with us. How have you seen FIA forest carbon data benefit working forests, and do you have thoughts about how we can continue to strengthen carbon capture data collection and collaboration?

Mr. MOORE. Thank you, Congresswoman, for that question. And, it is interesting that you bring this up because, as I look into the future, the issues that you brought up are going to play prominently into what is the next iteration of America's forests in this country. And when we talk about climate and we talked about carbon sequestration, there is a huge role that we are still trying to venture into. FIA data is going to be one of the foundational pieces of this. I believe you are going to hear from the next panel some of the work that we are doing with different nonprofits and other groups in terms of looking at the FIA data, looking at what the opportunities are for carbon sequestration, and then how do the National Forests play into this new system that seems to be emerging in this country? And I think some basic fundamental decisions need to be made is that if the Federal Government participates in that, what are the policies associated with that so that we don't create undue competition with the private landowner? So we are tiptoeing into this new era, and we would welcome Congress's involvement in this, as well as our continued participation with our partners.

Ms. KUSTER. Well, and I think for Members, this is one of the very rare opportunities for bipartisan work in the carbon sequestration space, so I appreciate that.

In this appropriation cycle, I also teamed up with Congressman Peter Welch from Vermont to secure \$1.5 million increase in funding for the Community Forest Program in this year's House spending package. Again, Chief Moore, could you talk about the impact of the Community Forest Program and how it has enhanced conservation efforts around the country while supporting job creation?

Mr. MOORE. Thank you. Yes, so one of the advantages is that it allowed Tribes to participate as grantees. And so that is one of the advantages and the amendments that we have in to the program, and we welcome that.

Since its creation, the Community Forest and the Open Space Conservation Program, we permanently protected over 27,000 acres through simple fee purchase. And I had mentioned something about conservation easements earlier. The conservation easements are not allowed to participate in this program. But the program targets private lands that are threatened by conversion to non-forest uses and those that are not held in trust by the United States and also lands that can provide the fine community benefits and at the same time allow public use. So this is a program, that is not heavily funded, but the value that it provides is significant.

Ms. KUSTER. Well, I appreciate it. My time is up, I will yield back, but thank you again for your service.

Mr. MOORE. Thank you.

The CHAIR. The chair now recognizes Mr. DesJarlais for 5 minutes.

The chair now recognizes Mr. Allen for 5 minutes.

Mr. ALLEN. Thank you, Mr. Moore, and your colleagues for being with us today and talking about this that we have been talking about. I was just elected and served in 2015, and we seem to be continuously talking about where we are and how to prevent these fires. Obviously, from a climate standpoint, trees need carbon, and so that is a good thing. And if we have a forest fire, obviously, that produces carbon, which we understand is a problem. So we got to get a handle on this somehow.

And how can—obviously we have increased funding, but something is out there that is keeping us from getting the job done. What can we do? I mean, what can we as Congress do to, and maybe it is just not money. Maybe it is certain environmental issues or something like that it is really keeping us, like, for example, to manage the forests, you got to build a road in there to manage the forests. And I understand we can't do that, and we are prohibited from doing that. We can't continue on like this because, like I said, it is not good for the environment. We need more trees, not less trees. And of course, in my state we are 40 percent sustainable. I mean, we plant 40 percent more trees than we cut. And we don't have to deal with these fires because we have a wetter climate and we don't have those winds. But, what barriers can we remove by legislation to make this happen and get this job done?

Mr. MOORE. So, Congressman Allen, first of all, that is a very insightful question, and it is one that has been kind of a thorn for a long time. I would say that if I look at the regulations, we have all the regulations we need and some would argue too many. But I think that Congress has provided us with opportunities that we have not had in the recent past, probably in the last 70, 80 years. I think what we should be focused on now is how do we implement the opportunities that we currently have? And so we are committed to moving forward with that.

In relation to your question about roads, it is my understanding that we can build roads. And in some cases, we have to put them to rest after we finished the project that we built the road for. It just all depends. And what type of road do we build to go in if we are going to have a timber sale or something?

But as you know, people complain about the number of roads we have and can we maintain the number of roads that we currently have? And I think there are opportunities, entering into agreements with counties and other entities where we could work together collaboratively to manage the road system that we currently have.

But I will tell you, we are not funded to handle the level of roads that we currently have in the system, so we would appreciate any insight or help that you as Congress would provide.

Mr. ALLEN. Okay. And that is for the maintenance of the roads?

Mr. MOORE. Yes.

Mr. ALLEN. Okay.

Mr. MOORE. Maintenance, just when we have storms and stuff and you have blowouts from water and those types of things sanitation.

Mr. ALLEN. Right. Okay.

In the southeastern United States, what are your main challenges that you face that would fall under your direction as far as

our part of the country? And I represent the State of Georgia, District 12.

Mr. MOORE. Well, it is always do you have the funding to do the level of work that is needed to do out on the ground? And when I look at what the South has in abundance is that they have done a really good job of managing that ecosystem and the ecologic conditions out there for different environments, like the red-cockaded woodpecker or the pileated woodpecker or some of the other threatened and endangered species. And what we have done in the South is really work with our partners, those local community leaders and others to create these conditions.

I think, looking at the farm bill, the 2018 Farm Bill, it has given us a lot of those tools to create those conditions. Even when I look at prescribed burning, the South contributes probably about 70 percent of all the burning in the U.S. And they have created those authorizing conditions there. And so while there are always opportunities to improve, I want you to know that, the work that is taking place down there is really admirable. It is not to say that we can't do more, we can't do better, but right now, the work that is taking place there is kind of—it is a perfect example of what we were trying to achieve across the country.

Mr. ALLEN. All right. Well, thank you, sir.

The CHAIR. The chair now recognizes the gentleman from Arizona for 5 minutes.

Mr. O'HALLERAN. Well, I thank the Chair and Ranking Member for organizing this meeting. I also want to thank Chief Moore and his team for being here today.

Since your appointment, Chief, I believe that we have made headway on a number of important issues, along with the last few years of Congress has helped to get us to where we are at today on many of those issues.

I also want to highlight that this Congress has been at this for a long time, as was just recognized a little while ago. And during that time, we have continuously up until recently cut the Forest Service time and time and time again. And we also have put hindrances in their way. We have fires to fight. We take staff and put them on fires up until the recent farm bill left last time.

But the underlying issue is that we have to work as a team. And that team has to work in realization of the demands that we have placed on the Forest Service to create such a fast change after years and years of neglect are difficult.

And Chief Moore has been with us for a year now. And I think he is doing, and his team have done, an outstanding job over that course of time. And here, the American Rescue Plan (Pub. L. 117–2) has put money forward and the bipartisan infrastructure bill, but much more remains to be done. But I look forward to continuing this partnership moving forward.

In 2018, we worked to ensure the farm bill created and strengthened conservation and forestry programs vital for rural Arizona and America. Five years later, the nation is facing new challenges that are forcing action. Unprecedented dry conditions do not seem to be easing. Ready access to clean and reliable water for states like Arizona has become dire, and wildfires have grown in both

scope and scale, now posing an even greater threat to local communities. Arizona's 1st Congressional District has not been spared.

In addition to the immediate difficulties these fires cause for communities, wildfires can also dramatically change watershed processes, affecting streamflow and erosion. Often, if the watersheds aren't properly restored, communities are put at risk such as in Flagstaff during the recent couple of fires that have been up there. This same issue threatens much of Flagstaff now with the burn scars left from the pipeline fire just several weeks ago and the monsoon season we are currently having.

Chief Moore, the most significant projects to prevent catastrophic wildfires in northern Arizona is [inaudible]. This week, I went to C.C. Cragin Reservoir in Coconino County and forest in northern Arizona. This is a project with 64,000 acres with 35,300 acres eligible for mechanical treatment. Some of my comments are similar to Mr. LaMalfa's. We don't have the manpower. We don't have the scale that is necessary. Part of that is the current hiring market. I know you are trying to hire people in forests throughout the West, but it is hard to get them on board right now. We are trying to find contractors, but after years and years of contractors not being around, we are having difficulty doing that. I know that the roads are expensive to put in, but you are trying to address that issue. And these delays and slow progress are threatening the ability to get the mitigation work done that is needed on a constant basis actually.

So, Chief Moore, first, how is the Forest Service responding to hiring challenges for full-time staff and contractors? Second, how can we utilize the farm bill to help support the industry that is needed for forest restoration work like biomass and finding markets for the—whether it is the biomass or the timber and getting this done in a way on the scale that is going to be needed into the future? I know you can't turn it around in a year or maybe even 2 years, but we do need to turn it around with the help of all of us. Thank you.

Mr. MOORE. Yes, Congressman, thank you. So I will start with the hiring piece. We are playing catch-up over the last 20 years of what has happened to the agency. As our fire workforce has doubled in size over the last 20 years, we have lost about 40 percent of our non-fire workforce, and so we are playing catch-up in terms of how we build and add capacity in the organization again.

Mr. O'HALLERAN. And, Chief, in order to get us out into the field, we need that workforce also.

Mr. MOORE. Yes, and the part—the 38 percent that I am talking about is primarily from the field, and so we are moving in that direction. But, I don't know if this is a secret within the government or not, but let me just share with you some of the complications that we have with hiring. First of all, we are playing catch-up, and so when we go out and hire positions, the existing employees also want to compete for those positions so they can advance and promote upwards, and that is a good thing about the agency.

What we have to pay attention to is how do we bring new people into the organization, and how do we expand our opportunities to work with community leaders and partners to build this back up, build that capacity up. We are never going to go back to where we

were in terms of number of people, but we do think that through some of the authorities under the farm bill like the GNA and shared stewardship, that we are going to build that authorizing environment through people in these communities to leverage and add capacity to do the work.

And so that is our plan for looking at hiring and adding capacity back in order to effectively utilize the BIL monies (Pub. L. 117-58) and maybe other monies that may be coming down in the future.

Mr. O'HALLERAN. Chief, I am going to have to yield or else I am going to get the hook here. So, Madam Chair, I yield back.

The CHAIR. Thank you. The chair now recognizes Mr. DesJarlais for 5 minutes. Mr. DesJarlais, you are now recognized for 5 minutes.

Mr. DESJARLAIS. I have no questions today.

The CHAIR. Thank you for your attendance at today's hearing, Mr. DesJarlais.

The chair now recognizes Mr. Kelly for 5 minutes.

Mr. KELLY. Thank you, Madam Chair, and thank you for having this important hearing. And, Chief Moore, thank you for being here, and thank you for what you are doing for the Forestry Service.

Expanding markets for timber and forest products are vitally important to both the family tree farmers and larger operations in states like Mississippi, where forestry contributes heavily to our economy, includes over 62,000 jobs. Domestic markets for wood products, as well as exports to Europe and Asia of wood pellets, have been bright spots for Mississippi tree farmers. Chief Moore, is the Forest Service doing what it can to encourage new markets? And are there things we should consider for the farm bill that would assist the Department in developing new forest product markets?

Mr. MOORE. Yes. The short answer is yes, but I am going to have my Deputy Chief of State and Private Forestry respond to that.

Ms. HALL-RIVERA. Thank you, Chief. And thank you for that question, Congressman. And as the Chief has previously stated, we are very much focused on expanding forest markets. And we talked a little bit about small-diameter timber, which is a particular interest in the West. Your state in the Southeast, already there are robust timber markets there, as you know, but we are doing work to grow those markets, particularly around pellets, which I am sure you are very familiar with. And we have work going on both in our part of the agency, as well as with our international programs, because there is a lot of interest in the pellet market overseas, in Europe in particular, as well as Asia. And the southeastern United States is really set up well to be a purveyor of that forest product, and that is a really good connection with private forest landowners as well. So we are doing a lot of work there.

We have had a number of dignitaries here from Europe and have just been taking them to your state and other states to show them how our sustainably managed forests in the United States are a really critical part of the pellet market for Europe and other places.

Mr. KELLY. Thank you. And, Chief Moore, just a comment. We spend lots of money and lots of time. I noticed you said 70 percent of the controlled burns are in the South and Southeast. It seems

like that number should be 70 percent and in our National Forests out West where the wildfires usually occur. Climate and those things go to that. But we throw a lot of money, we have a lot of solutions, but we have to get better. The reality is we keep having these wildfires. I have been here 7 years, and we continue to have the same problems. We have to do solutions that work.

And with that, I yield my time to Mr. LaMalfa.

Mr. LAMALFA. Thank you, Mr. Kelly. Chief Moore, I just wanted to follow up on a couple of thoughts here. The authorities that were given in the 2018 Farm Bill, what was the most helpful out of those so far do you think to move the ball?

Mr. MOORE. I think a number of them were. I think the—when I look at the GNA authorities, when I look at shared stewardship authorities, when I look at the collaborative forest landscape restoration opportunities there, I think they have all been very helpful. And I also think that they are pointing to a direction that is going to help us be more successful than we have in the past in terms of removing and improving a number of acres, particularly across the West.

Mr. LAMALFA. Yes, I like more local cooperation, is pretty big if we are going to win this thing. Let me dwell on some of the fire-fighting aspects for a moment. I get report after report after report that when a fire breaks out, there might be somebody locally on-site, maybe a logger, maybe somebody in construction, somebody like that might be nearby with a water truck, a dozer, Cat, personnel, whatever. And they might go out and be willing to go put out a fire when it is ¼ acre, and they might get run off by somebody aggressively saying if you go out there, we will arrest you. Now, why would we chase people out that have forester ability, whether it is loggers or whoever, and they can put a circle around a fire until somebody gets there? Why the heavy-handed threats that I get anecdotal conversations about? Is that the official policy of the Forest Service is to turn down good Samaritans that want to help on Forest Service land or neighboring responsibilities?

Mr. MOORE. Congressman LaMalfa, I think what we are trying to do now is take a look at all opportunities, going forward. If I focused on how we got to where we are, it is because we were afraid that anyone that was not Red Carded (Incident Qualification Card) to handle wildfires would put themselves at unnecessary risk.

Mr. LAMALFA. These aren't dumb people. These are already people out in the forest that are constructors or forestry people. They can handle themselves if they know how to run a Cat that is already out there?

Mr. MOORE. I understand that, sir. What I am saying is that what we are seeing in terms of fire behavior is not normal. And while an individual may feel like they are qualified to do this work, I am not sure. So the question for me and I think what we want to pursue is what opportunities do we have to look at inviting people from in the community to be Red Carded and qualified to do the very work that you are talking about? So I am open to looking at how we can pull people from the community in to do exactly what you are talking about.

Mr. LAMALFA. But, sir, you are talking like right now is that, oh, we are looking at new opportunities. I have been doing this for 20

years at one level or another. You have been in the Forest Service for a long time. Why are we acting like this is new? These should be established protocols. We are having troubles with the VIPR program getting people with equipment ready to roll and such, too, getting the contracts out because everybody is sitting in their offices—why are we looking at this as a brand-new thing? And I will stop there for your answer.

Mr. MOORE. Well, it is not a brand-new thing, but it is something different because, prior to now, they are not allowed to do that. We are trying to create an environment and the opportunity where we can look at how we might want to do that. And so what I am saying is that I am open to pursuing other opportunities, but we need to make sure that folks are qualified to be on these fires because the behavior is just unlike anything that we have seen. So I would not want to have people go out on these fires and something bad happens.

The CHAIR. Thank you for your answer.

The chair now recognizes Mr. Panetta for 5 minutes.

Mr. PANETTA. Thank you, Madam Chair. I appreciate this opportunity.

Chief Moore, always good to see you here in Washington in front of the Agriculture Committee, and I apologize for not being there in person.

Obviously, you are hearing some themes here from the Members of this Subcommittee, and one of them is about staffing. Clearly, we believe that staffing is important to address what unfortunately has become the number one cause of wildfires, and that is basically humans, basically humans being humans and not necessarily the most intelligent aspect of our human race, especially when it comes to how they deal with fire and basically the cause of many of the fires in our National Forests.

Obviously, you are aware of the bill that I introduced, the Save Our Forests Act (H.R. 5341), which will increase the amount of personnel there in our National Forest. But I also was wondering if you could talk about other aspects of hiring such as housing, such as fire stations, such as incentives in order to keep a well-qualified personnel there. Is that something that you take into account as well in looking at what you can do to not just hire but to retain Forest Service personnel?

Mr. MOORE. Yes, Congressman. First of all, I appreciate all your efforts in the past getting us to where we are now. In terms of some of the challenges, you are right. I think the Forest Service is a microcosm of what is happening in our country right now, and so there is competition for the labor workforce. When you look at the average salary for Federal Government employees, it is less than what some are making at that county, a local level, and certainly at the state level in some locations. We are hopeful that we will continue to try and meet our goals of 100 percent filled in terms of firefighters.

We also know that one of the challenges is housing, particularly in some of our small communities, but also in some of our more popular areas where rent or the cost of a purchase of a home far exceeds our employees'—particularly at that lower level of the organization—ability to afford housing. So we are trying to pursue

opportunities for housing. We are looking forward to creating some of the kind of new opportunities with some locals to look at what are the possibilities there to build housing and to create that infrastructure so that we will have opportunities to fill firefighters and staff engines in some of our remote locations. But also, how do we fill those engines in some of those desirable locations where it is expensive to live and where the competition for the labor market is really hot?

So we would invite the community to step forward. I will give you an idea. It is in everyone's best interest that we have a presence there. And so are there opportunities for some of our community leaders in some of these small rural communities to build housing and allow us to lease those facilities in order to have firefighters and employees live in these communities? And I think that this may be an opportunity for us to collaborate and sit down together with community leaders and others to help find solutions for some of the really tough problems that we have with infrastructure here in some of our locations.

Mr. PANETTA. Okay, Chief, I appreciate that and agree with you wholeheartedly and look forward to continuing to work with you.

Let me pivot to another issue that Mr. O'Halleran brought up real quickly and that is biofuels. Obviously, biofuels produced using feedstocks that are sourced from Federal lands like National Forests, unfortunately, they are not qualifying for the EPA Renewable Fuel Standard, which, as you can tell, disincentivizes the private industry from contributing to wildfire risk reduction on our Federal land. Can you give us an update on whether or not the agency is working with the EPA on this issue? And can you elaborate in what little time we got on where you see the Forest Service and private industry working together to meet those goals?

Mr. MOORE. Yes. Let me ask Chris French, our Deputy Chief for NFS, to respond.

Mr. FRENCH. Yes. So, Congressman, thank you for the question. Absolutely it is a concern. It has been an issue for quite a number of years. We are continuing our advocacy and conversations with the Administration, with the EPA on the way that is defined and see it as a significant barrier in our ability to reduce wildland fuels.

Mr. PANETTA. Okay. Thank you, gentlemen. I appreciate that. Madam Chair, I yield back.

The CHAIR. Thank you very much.

The chair now recognizes Ranking Member Thompson for 5 minutes.

Mr. THOMPSON. Madam Chair, thank you so much. First of all, Chief, just thank you for what you are talking about, identifying the firefighter need. As a former state-certified firefighter, our rural communities are hurting with our mostly volunteer forces. And so I think you are partnering perhaps with USDA Rural Development economic development maybe to see what kind of creative things we could do.

To have a healthy community, you really need obviously qualified healthcare professionals in that community. To have a healthy forest, I think you need qualified silviculturists that are working with that forest.

So my first quick question was what is the status of vacancies or do we have all the qualified silviculturists in the system, or how many vacancies currently exist that we need to be filling for folks who are actually qualified as silviculturists?

Mr. MOORE. Yes, I don't have a number for the actual silviculture position. I have numbers generally across the agency. But, Chris, as the National Forest System's Deputy Chief, do we have information?

Mr. FRENCH. We do. And we can follow up with the specifics. In general, Congressman—

[The information referred to is located on p. 1295.]

Mr. THOMPSON. That is great.

Mr. FRENCH.—what I would tell you is that we are running about 30 to 40 percent lower than the need, and that our attrition rate of folks retiring is almost higher than what we are able to hire. Now, having said that, we are doing large collective hiring events across the entire nation to overcome that.

Mr. THOMPSON. Okay. Well, I think we want to work with you on that. And if you got specific numbers based on region, that is always helpful, obviously. I mean, again, it comes back to the community is not going to be healthy if they don't have access to a healthcare provider, and forests are not going to be healthy unless you have that expertise. And 30 percent, that is huge.

Chief, how much timber do you expect to be harvesting in the coming year? And do you expect the harvest levels to increase, decrease, or remain stable in the next 5 years?

Mr. MOORE. I expect them to increase, sir. What is happening now is that we are creating efficiencies. To give you an example, when you look at the President's budget and what it was funded to do, it wasn't the same budget that we actually got. And so what we actually got was enough to produce 2.7 billion board feet. What the President's budget proposed was about 3.2 billion board feet. Now, looking at the efficiencies that we have gained and looking so far as some of the bill funding that helps supplement that, we will exceed that. And our expectation is that we will continue to exceed that going forward.

Mr. THOMPSON. When you look at exceeding that, are we talking about sawlog? What is the breakdown between restorative cuts and then sawlog? Because that certainly has—both impact the health of a forest but we are also concerned—we are always concerned about not just health or the environment but the healthy economy as well.

Mr. MOORE. Yes, in the past, we have considered sawlogs as success, and that is what we had wanted. When I talked earlier about wood innovations and looking at new markets and new opportunities.

Mr. THOMPSON. Right.

Mr. MOORE. No matter what we produce, whether it is the commercial sawlogs, whether it is biomass, there is industry and there is a market for that material, and that is what we are shooting for. Rather than wasting anything, there is a market to utilize it to create jobs, particularly in our small rural communities because we are finding that they are drying up because there are no jobs to keep them there.

Mr. THOMPSON. Yes.

Mr. MOORE. And I think being able to create markets in some of these small communities does give us a really good chance of maintaining that infrastructure and just the texture of the communities that we have grown to love.

Mr. THOMPSON. Yes, we have met with—it has been a couple of years now, but, one of the things is we need to restore domestic furniture. I was proud to visit one of those this past week. It was very exciting what they are doing, kind of a new startup that is doing great things.

My staff tells me that the Forest Inventory Analysis Program shows that there is over 235 billion cubic feet of standing sawtimber on unreserved National Forest lands, over 200 billion of which is in the lower 48. That seems like it makes you one of the largest holders of sawtimber, if not the largest in the country. Can you explain how you have this much sawtimber, and yet you mentioned having too much low-value material?

Mr. MOORE. Yes, so I am not sure where your numbers come from, but I will tell you, normally when I hear large numbers like that, I know that it is all-inclusive. It includes wilderness areas. It includes areas where we don't go in—

Mr. THOMPSON. Yes, and this specifically was sourced as the on reserve, so it took that into account.

Mr. MOORE. Yes, there is no doubt we have a lot of opportunities and a large need to remove a lot of vegetation off the landscapes out there, so there is no way around that, sir. We have a lot of vegetation removal that we need to do, particularly if we are going to be looking at trying to reduce the unwanted fire that is happening across the landscapes primarily in the West, but throughout as well.

The other issue we have, too, if you look at the South and you are looking at the East and some of those areas, while there may not be fire that destroys a lot of landscapes, it is hurricane and it is other storm damage that we have to be considerate of.

Mr. THOMPSON. Right. Yes, in Allegheny it is invasive species.

Mr. MOORE. Yes.

Mr. THOMPSON. Yes. Thanks.

Mr. MOORE. And it is that wonderful black cherry there.

Mr. THOMPSON. That is right. Thanks.

The CHAIR. The chair now recognizes Ms. Schrier for 5 minutes.

Ms. SCHRIER. Thank you, Madam Chair. And welcome back, Chief Moore. It is great to see you again.

I first just want to reextend my invitation to you to visit my district this summer—it is beautiful in Washington State in the summer—to speak with stakeholders about priority forest restoration and wildfire mitigation projects. My district actually includes much of the land covered by the Central Washington Initiative. In fact, it is one of the ten landscapes selected for an initial investment to implement the Forest Service's 10 year Wildfire Crisis Strategy.

Next, I would like to note that the farm bill programs which authorized trusted Forest Service partners to conduct management projects on Federal land are of great importance to Washington State. For example, Good Neighbor Authority allows the Washington State Department of Natural Resources to hire and collabo-

rate with local companies to perform a variety of important watershed rangeland and forest restoration work.

The 638* Authority is another great example. This authority, the Yakima Nation is conducting a much-needed salmon habitat and stream restoration project on Nason Creek in central Washington. So through 638, the Yakima Nation brought their own funding and expertise to this initiative, allowing the work to move forward quickly and efficiently. And with the additional funding from the bipartisan infrastructure law, they are expecting to rely on continued use of the 638 authority for more projects in the near future.

The last thing I would like to focus on for my question is watersheds. And as you know, forests provide drinking water to more than 150 million people in the United States. The Forest Service's Watershed Condition Framework, which was authorized in the Forestry Title of the 2018 Farm Bill, authorizes the Forest Service to evaluate watershed conditions and develop, implement, and monitor restoration action plans in coordination with other interested parties.

In the Pacific Northwest, forest stakeholders are telling me that much of the watershed restoration needs are related to roads and that the Legacy Roads and Trails Program is the principal source of funding. I was really proud to have my bill to codify Legacy Roads and Trails included in the bipartisan infrastructure law, along with a \$250 million appropriation.

So my question is for you, Chief Moore. First of all, I know that the Service recently completed an update of the Watershed Condition Framework. Can you share a little bit about the findings for the Mt. Baker-Snoqualmie and the Okanogan-Wenatchee National Forest in Washington State?

Mr. MOORE. Yes, I sure can. And first of all, thank you for the question. And I look forward to coming to Washington State again to visit with you and some of your constituents there.

Based on the condition assessment, 93 percent of the 128 watersheds on the Mt. Baker-Snoqualmie are functioning properly, and this is good news. The remaining seven percent are functioning at-risk. When I look at the Okanogan-Wenatchee National Forest, in contrast, 41 percent of the 210 watersheds are functioning properly and 58 percent are functioning at-risk, and you have one percent that are impaired in terms of how it functions. So that is what the framework assessment is telling us about those two forests currently.

Ms. SCHRIER. It sounds like we have work to do, particularly in the Okanogan-Wenatchee National Forest. Can you share your perspective on funding needs for the Watershed Restoration Action Plans in the Pacific Northwest, including Legacy Roads and Trails? Do we have enough appropriated now? What do we need in order to get those numbers much farther up?

Mr. MOORE. Yes, and I may ask for help here, but the total function and needs to complete the work specified in that Watershed Restoration Action Plans—and these plans are associated with 67 priority watersheds in the Pacific Northwest region, which is

* **Editor's note:** This refers to P.L. 93-638, Indian Self-Determination and Education Assistance Act.

Washington and Oregon. So that total is about \$55 million, and about \$32 million could be funded via the Legacy Roads and Trails Program, thanks to you.

And one other piece that I would add is, since 2011, the National Forests in the Pacific Southwest have completed all needed restoration work on 37 of those 67 priority watersheds. And so while there is still work to be done, there has been a lot of work that has already been done and completed. And so kudos to the Pacific Northwest region for their focus on looking at improving those critical priority watersheds in that part of the country.

Ms. SCHRIER. Thank you. That is a lot of money that you talked about. It sounds like almost $\frac{1}{5}$ of what has been appropriated for Legacy Roads and Trails. Do you have any sense of the timeline for rolling out those funds so that we can continue to make progress?

Mr. MOORE. Chris?

Mr. FRENCH. Yes. Thank you, Congressman. We are about ready to announce within a few weeks here over 120 Legacy Roads and Trails projects across the country I think in 38 states. And as you pointed out, if you look at the costs associated with just those in the Pacific Northwest, if you look at the funding that we got in bill, which was \$200 million over 5 years, the true needs across the country far exceed that. And so we are prioritizing those most impaired watersheds, including those up in the Pacific Northwest in this first set of projects we are rolling out.

Ms. SCHRIER. Thank you. I appreciate that. And I yield back.

The CHAIR. Thank you. The chair now recognizes Mrs. Miller for 5 minutes.

Mrs. MILLER. Thank you, Chair Spanberger.

I would like to yield my time to Chairman LaMalfa.

Mr. LAMALFA. You increased my rank. Thank you, though, appreciate that. Chief Moore, thank you again. I wanted to follow up a little bit more on the readiness for this fire season as we are already in the middle of it. For the last couple years, we have had some ups and downs with the VIPR program, which is the program that allows the Forest Service to contract with private owners of equipment that are helpful in fire situations. What is the status of the VIPR program this year? What is the feedback you are getting from these equipment owners that would like to be helpful with their water trucks and their dozers and *et cetera*? How is that looking this year?

Mr. MOORE. So I am not hearing a lot of problems with VIPR. Congressman, as you know, we had attended a meeting with you and some of your constituents there a couple of years back.

Mr. LAMALFA. I appreciate that, yes, sir.

Mr. MOORE. And those same problems existed, but I believe we found a workable solution on an emergency use authorization to get around the problems that we had, particularly in northern California. And so unless you can share with me what some particular concerns or issues we have with VIPR, I think we have worked through those issues that we had in the past, but I am open for an opportunity to improve that if necessary.

Mr. LAMALFA. Okay. I appreciate that. Well, we will follow up on that if we are getting feedback differently than that.

Mr. MOORE. Okay.

Mr. LAMALFA. You mentioned wilderness areas a minute ago. What is the standard for Forest Service on maintaining wilderness areas for fire safety, for healthy forests, for the number of trees per acre that we talked about earlier as healthy and the ability to put out fires in those areas? What is the standard or what should the standard be for access to those and the maintenance of them so that they are healthy forests and fire-safe?

Mr. MOORE. So, as you know, we are not allowed to cut timber in wilderness areas. And if I could just focus on California since that is where you are, when I look at wildfires, all it takes really to use equipment in those areas is for that local line officer, a forest supervisor in this case, to request from the regional forester the authority and the okay to use mechanized equipment—

Mr. LAMALFA. On wilderness?

Mr. MOORE. On wilderness, yes. And during my time there in California, it was a process. And part of it is because right outside of wilderness areas we have communities. And if we didn't suppress that fire within the wilderness, that community was at risk. And so I have always been okay with use of mechanized equipment in wilderness for that reason because when you look at California itself, it said about 93 percent of California is in urban settings. And when you have that number of urban settings across a state, it is very dangerous to not manage a fire, regardless of where it is at.

Mr. LAMALFA. Ninety-three percent of—

Mr. MOORE. Urban settings, like in your district, you have a lot of communities that are built up. It is not necessarily a city, but you have communities that are built. That is an urban setting. And when you look at across the state, it is not equal all over the state. When you look at the average across the state, it is estimated that about 93 percent of California is—

Mr. LAMALFA. That is interesting criteria. So let's take the town of Westwood, for example, which was threatened by fire last year, and Dixie as well. It has a perimeter. So, when you are talking a landscape of 93 percent is considered urban, what is the radius away from these towns that you would count as part of being urban, I guess? Because, there is—I drive my district a lot, and there is a lot of gaps in between that isn't urban, even small towns.

Mr. MOORE. As you know, northern California is different than central, and it is different than southern. And so we are looking at the average. But, in terms of urban communities being threatened, it depends on a lot of conditions like wind, topography.

Mr. LAMALFA. No, but what I was asking, though, is for the landscape to be considered 93 percent urban interface, right, that means a town that is a square mile in the middle of a forest that might not have another town for 30 miles, how many acres around that town are what you are considering the acreage that makes 93 percent? Is it a 1 mile buffer around town that you would consider the urban area? I don't follow you.

Mr. MOORE. Yes, I don't have that level of detail, but it doesn't have to be a little town, Congressman. It could be a little group of homes. It could be just a setting where you have a community. We have a lot of resorts also isolated and remote areas—

Mr. LAMALFA. Okay. Well, that is interesting that that much would be considered urban. On wilderness areas, then, so you feel like you have the access at a simple phone call to send equipment out there for fire starts, and it will start immediately?

Mr. MOORE. Yes, my experience has been that that usually has happened really quick. It has not been an issue in California, sir.

Mr. LAMALFA. You don't have to wait days. Okay. Thank you.

The CHAIR. Thank you, Mr. LaMalfa.

The chair now recognizes Mr. Moore for 5 minutes.

Mr. MOORE of Alabama. Chief Moore, thank you for being here. And, as you know, the goal of forest conservation is to promote and conserve the rich diversity of natural resources found in healthy forests. This goal can be achieved by protecting and improving forests, providing technical assistance, and facilitating conservation efforts. In my district, we have about 4.4 million acres of forest. What program is authorized—and I am fairly new to the farm process, I am a freshman, so I am just curious what programs were authorized in the 2018 Farm Bill that you found to be the most utilized and the least utilized?

Mr. MOORE. So the most utilized program in the farm bill is going to be the Landscape Restoration Program. An example of the effectiveness of this program is that the changes expanded eligible applicants beyond the states to include Tribes, nonprofits, and institutions of higher learning, and they also prioritized investments in rural landscapes. So, it is those projects that contribute to healthy, climate-resilient rural forests and communities. So in short, it expanded the eligibility for people to participate in that. Whereas it used to be with just states, now it includes states, Tribes, nonprofits, and institutions of higher learning.

Mr. MOORE of Alabama. What was the least used, Chief? What did you find to be the least effective program or least utilized?

Mr. MOORE. Well, that is hard to say because where one program may be least utilized in one part of the country, it could be heavily utilized in another part of the country. And so that question would be hard for me to answer that unless you say, well, what is the least utilized program there in your district there, in Alabama, and then I could be more responsive to that in terms of what is actually being used there *versus* the one that is most effectively used there.

Mr. MOORE of Alabama. And I guess based on that, we have kind of gauge effectiveness based on utilization. And are there any programs that are just really popular in the southeastern part of the U.S. that you think my constituents would appreciate and that we would need to fight for in 2018—or in the 2023 Farm Bill I should say?

Mr. FRENCH. Are there sections that were popular in the Southeast that we should go forward with?

Mr. MOORE. Well, I think the GNA, the Good Neighbor Authority, an agreement that we have talked about, is very popular. I think the Shared Stewardship Agreements are another one that is very, very popular. And I think what makes them so popular is that it gives us the opportunity to bring the community into the decision space of not only how we do it, but what we do. And that is one of the things that I think with some of these new authorities and how it has changed how the agency operates from the past, it

gives a voice and decision space to the community in a much bigger way than perhaps what we have had in the past.

Mr. MOORE of Alabama. Thank you. And with that, Madam Chair, I will yield back.

The CHAIR. Thank you. The chair now recognizes the very patient Mr. Costa for 5 minutes.

Mr. COSTA. Thank you very much, Madam Chair, for holding this important hearing with the Subcommittee. Obviously, when we see, as was noted by our colleague, Congressman LaMalfa, we no longer have a fire season but it is a fire year. And we are dealing with that throughout the country in the West, particularly in California.

The last time I participated in a Subcommittee hearing was in the fall of 2020 toward the end of the Creek Fire. Matter of fact, I did a little bit of research here. Of the 20 largest fires in California dating back to 1932, 14 of them have been in the last 10 years. And climate change and many factors has been noted as the cause that we are dealing with.

When I participated 2 years ago, I asked then-Deputy Chief Phipps about what would be needed to do proper forest management to catch up. As you said, Chief, we are playing catch-up. And he indicated at that time—so almost 3 years ago—\$2–\$3 billion a year for 10 years. Now you have your current budget that we have, and then there was the bipartisan infrastructure package, I believe, gave another \$3.2 billion, but you add those numbers up, and they don't come close to \$2–\$3 billion a year for the next 10 years.

As you put your 10 year plan together, how are you prioritizing that and also hopefully allowing for additional partnership and funding in state and local monies? In California, I know we have done a fair amount.

Mr. MOORE. So we have looked at, Congressman, ten landscapes across primarily the West, and that covers about eight different states. And so if I was to just focus on California, we do have landscapes there in California we want to focus on. And what is good about California is that the state has been really aggressive and progressive in terms of treating the landscape conditions there in the state. And so the Forest Service there is partnering with them, and they have a goal to treat 1 million acres per year between the state—

Mr. COSTA. And then they get to there—I know Mr. LaMalfa and I both are at the same point, and that is the funding. Do we have the funding to meet those goals between Federal and state resources? Because what I have observed here in recent years is that we end up augmenting the fire suppression funding, and we take some of that from the forest management and we are always playing catch-up. And we are never—I mean, we have done a poor job, let's acknowledge it, for 20 years in managing our forests, and we are paying the price for that, I think.

Mr. MOORE. Yes. So if you look at the \$5.6 billion or the \$3 billion that we have for hazardous fuel reduction, it is only a shot in the arm in terms of what we actually need to make a difference on the landscape.

Mr. COSTA. Well, I think it would be helpful if you would provide the Subcommittee here with what you would really need to do the job for your 10 year program.

On the private-sector, I was up visiting part of the Creek Fire in the last week or 2 and the devastation that is there. Some of the private landowners indicated that they have taken advantage of NRCS funding to help do this. You have not mentioned that. What is the potential for getting more private landowners involved to help do their part?

Ms. HALL-RIVERA. Thank you, Congressman, for that question. Yes, we work with our sister agency NRCS. They do provide funding for post-fire rehabilitation to private landowners. And, there is a pretty substantial budget there for that—

Mr. COSTA. But we could do more of it, right?

Ms. HALL-RIVERA. Yes, we can do more of it, and we are—

Mr. COSTA. We have to figure out how we include that. On the use of the wood products of—excuse me, I have a lot of questions and a little time. The fact is that it seems to me the salvage operations, again, using the Creek Fire because I was just there twice in the last 10 days, or trying to make progress in getting that salvage timber out, trying to find places where log decking or whatever you call it. But, again, we are playing catch-up, right, Chief?

Mr. MOORE. Right. We are playing catch-up, Congressman.

Mr. COSTA. And that is just one of the 14 fires in the last 10 years that you have had to do that forest management just in California. That doesn't take in the other eight states. Right?

Mr. MOORE. That is correct.

Mr. COSTA. And, of course, we are losing water. We lost over 700,000 acre feet of water in drought conditions.

Let me close on the permitting process because I think it is an important area and I think it is a problem. When the Native Americans managed Yosemite floor, the valley floor, they seemed to do a better job than we did, going in the springtime and live there and then in the fall when the first snow did come out and they would set fires. I understand we are trying to—we got more trees on the valley floor now than ever, and we can't get the permits to properly manage one of the nation's great National Parks.

Mr. MOORE. Yes, that is probably a question for the National Park Service through—

Mr. COSTA. The permitting impacts you as well for other forest areas—

Mr. MOORE. It does, yes.

Mr. COSTA. And is it a problem?

Mr. MOORE. Well, of course it creates unnecessary problems for us.

Mr. COSTA. Recommend how we adjust that. And my time has expired, but there are a number of areas here that I will submit further questions, working with my colleagues not only in California but with the good work of this Subcommittee Chair and the efforts. And thank you for allowing me to participate.

The CHAIR. Thank you, Mr. Costa.

Having concluded all questions for our first panel, the witnesses are now excused. Chief Moore, Mr. French, Ms. Hall-Rivera, the Committee thanks you for your testimony today. The Committee will now take a brief recess for our first panel of witnesses to depart and our second panel of witnesses to take their seats. We would typically do a full 5 minutes, but given that we are coming

up on votes, I am going to take a brief recess as long as it takes for our second panel to get comfortably situated. Thank you so very much.

[Recess.]

The CHAIR. I welcome the second panel of witnesses to the Agriculture Committee today. On the second panel, our first witness is Ms. Rita Hite, President and CEO of the American Forest Foundation. Our second witness is Mr. Douglas Reed, President of Green Diamond Resource Company, testifying on behalf of the National Alliance of Forest Owners. Our third witness is Mr. Christopher Martin, the Connecticut State Forester and testifying in his capacity as the President of the National Association of State Foresters. Our fourth witness today is Ms. Rebecca Humphries, the co-CEO of National Wild Turkey Federation. Our fifth witness is Ms. Sally Palmer, the Central Appalachian External Affairs Advisor for The Nature Conservancy. And our final witness is Mr. Tom Schultz, the Vice President of the Idaho Forest Group, testifying in his capacity as the President of the Federal Forest Resource Coalition.

You will each have 5 minutes to deliver your testimony. The timer should be visible on your screen and will count down to zero, at which point in time your time has expired.

Mrs. Hite, please begin when you are ready.

STATEMENT OF RITA N. HITE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN FOREST FOUNDATION, WASHINGTON, D.C.

Mrs. HITE. Good morning. Thank you for the opportunity to share the views of the American Forest Foundation and the family forest owners we work with across the country every day. It is good to be back here, albeit on the other side of the dais. I had the privilege of staffing this committee on forestry issues a few years ago, so good to see some familiar faces. Well, there is more in my testimony—

The CHAIR. Mrs. Hite, if I could interrupt you. There is an audio issue for those who are joining us virtually. Thank you, everyone, for your patience. All right. Mrs. Hite, you may proceed.

Mrs. HITE. Thank you so much.

The CHAIR. Sure.

Mrs. HITE. While there is more in my testimony about the improvements we suggest in the farm bill, I would like to focus this morning on the significant opportunity we see to unlock private-sector support for family forests and the economic and environmental benefits that these lands provide.

First, I just want to hit a little bit around family forest owners, who they are and such. Most people when they think about forests in this country, they think about the government and they think about corporations. Most don't know that the majority of the largest chunk of our forests are owned by families and individuals. One in four rural Americans own forests. And in fact, many of these forests are associated with a farm operation. About 75 million acres of our family forests are part of a farm operation.

Forests are critical in our rural economies. Family forests supply more than half of the wood supplied for the nation's forest products

manufacturing in the U.S., and they also provide us with clean air, climate mitigation, and a host of other benefits as well.

Family forest owners come from all backgrounds, but they all want to care for their land and have an impact on the planet. They are people like Kedron Dillard, a third-generation African American forest owner who shares ownership with a dozen relatives, but is struggling to find a way for the farm to pay for itself. There are people like Sutter and Taylor Rogers in California, who operate an outdoor summer camp for kids but who can't afford to tackle the overgrown fire-prone stands at the camp. There are people like the Boutwells in Alabama who manage sustainably for timber, and they look for voluntary options and markets to keep their forests economically viable.

Family forest owners want to care for their land but need technical and financial help to do that. And we are not just talking about these four landowners. There are 21 million people in America that own forests. Consider this: Eighty-five percent of forest owners are not working with a forester and don't have a management plan and thus are not maximizing the full potential of their forests. To be clear, the farm bill has helped. This Committee has done a great job in the last few farm bills of really opening opportunities in those conservation programs for forest owners.

But still, we are just scratching the surface. These lands are not yet living up to their full potential, and we are seeing big challenges on the horizon from climate change to wildfires. We have talked about that already this morning. These are challenges that require active forest stewardship, and they are challenges that require technical and financial help for family landowners, and they are challenges where family forest owners can be a big part of the solution.

While increased conservation program dollars are critical and improvements in those programs are critical, there is an opportunity to leverage the rapidly growing market, voluntary carbon market, which we estimate to be worth about \$90 billion in the coming decades, to actually support the same kind of forest stewardship we are doing with those conservation programs and help those programs be leveraged further. To be clear, the government's role in carbon markets should be minimal. The private-sector is driving this. AFF is working alongside The Nature Conservancy on a program called the Family Forest Carbon Program to help unlock these markets for family landowners.

What the farm bill can do and what USDA can do is the same role that USDA has played for a lot of other agricultural markets, catalyze these markets, open up these opportunities for forest owners so we can bring these resources to rural communities, very similar to the SUSTAINS Act (H.R. 2606) that that Congressman Thompson has introduced.

We see a significant opportunity for rural America to benefit from these markets in ways that leverage and support those farm bill programs. The private-sector is eager to invest in these opportunities, but because they are new, and because they require upfront investment, we need tools like what is suggested in the Rural Forest Markets Act of 2021 (H.R. 3790) that a number of the Committee Members here have cosponsored. If we can't overcome these

financing hurdles, this market opportunity will pass rural America, and we will see investments in other technologies, and America's rural family landowners will not benefit.

So, Madam Chair, Ranking Member, I appreciate the time. I see a lot of opportunity to help the farm bill's forestry investments go further by leveraging these market opportunities, as well as improvements in the program.

[The prepared statement of Mrs. Hite follows:]

PREPARED STATEMENT OF RITA N. HITE, PRESIDENT AND CHIEF EXECUTIVE OFFICER,
AMERICAN FOREST FOUNDATION, WASHINGTON, D.C.

[Chair] Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee thank you for this opportunity to testify on behalf of the American Forest Foundation and the 21 million family forest owners of the United States that AFF works with.

The American Forest Foundation is a national conservation organization focused on delivering meaningful conservation impact through the support and empowerment of America's family forest owners. With over 80 years of experience working with family forest owners in conservation, AFF has an in-depth understanding of the motivations, desires and challenges of families and private individuals that own wooded land in America. I personally have known first-hand the sweat and tears it takes to tend to the land. Before my 2 decades in the forest conservation space, I grew up on a beef cattle farm in upstate New York and know the joy and pride that comes from tending the land and seeing the ripple effect in our communities and the larger ecosystem.

I'm also here today as a leader in the Forests in the Farm Bill Coalition, a 100 plus participant Coalition that has worked together since the 2002 Farm Bill to offer and advocate a forest sector view of forest-related priorities for the farm bill. AFF has co-chaired this Coalition alongside our partners at The Nature Conservancy, the National Wild Turkey Federation, and the National Association of State Foresters, here alongside me today, for decades. This Coalition's work has just begun in advance of the next farm bill, and we look forward to sharing further views of this Coalition with the Committee in the future.

As the Committee considers the reauthorization of the farm bill in 2023, I urge you to consider how this critical piece of legislation can do more to support the stewardship and conservation of private forestlands, particularly those owned by family forest owners. This is critical because of the role these lands play in our rural economies, our social fabric, and our environment, and because of the immense challenges facing these lands and people, including climate change and wildfire.

We see a significant opportunity in this next farm bill to further unlock public-private partnerships, including new markets such as carbon markets, that can help increase the pace and scale of conservation and stewardship on these lands while also addressing many of the challenges we're facing as a nation.

Why Are Family-owned Forests So Critical?

All forests, including family-owned forests, provide Americans with important public benefits. They provide critical habitat for wildlife and fish, they help clean our water and air, and they provide a critical source of wood fiber for products and economic vitality for rural citizens and communities. With respect to clean air, these lands already capture and store roughly fifteen percent of our annual U.S. greenhouse gas emissions. These lands have even more potential to address two intertwined challenges we face as a nation that I want to speak to today: the wildfire crisis and climate change.

Families and individuals own the largest portion—39 percent—of all forests in the United States, more than the Federal, state, and local governments or corporations. As the largest portion of our forests, family forests can have a globally significant impact on climate change, through improved forest management, reforestation, avoiding emissions from catastrophic wildfires, and supplying the raw materials for climate beneficial forest products. In doing these actions, forest owners can also benefit their land goals and increase forest health and productivity.

At the same time, more than 1/3 of the high wildfire risk lands in the western U.S., where we have a severe wildfire crisis, are private, family-owned lands. These families can have a significant and essential impact in fostering wildfire resilience in our western landscapes.

Family forest owners own their land for a variety of reasons, but one thing they all have in common is that they care about their land. Landowners want their forests to be healthy, want their lands to support wildlife, and want to pass the land in better shape on to their children.

Bottom line, these landowners want healthy and productive forests that continue to provide these public benefits and do more to address growing issues like climate change and wildfire, and the resulting wildlife and other impacts, but they face significant barriers.

As a result, few are taking active steps to care for their forest leaving untapped potential in these lands for climate mitigation, wildfire resilience, and many other public benefits.

What are some of these barriers? First is a lack of forestry expertise and connection to technical assistance. In fact, only one in five landowners have received formal forest management advice. Many farm bill programs—such as the U.S. Forest Service’s Forest Stewardship Program—are hobbled by flat budgets that result in only the capacity for pennies-on-the-acre investments, leaving a significant gap in the resources available for land management planning and technical assistance among family forest owners.

The second biggest barrier to landowners taking further action to steward their land is cost. Most family forest owners are not generating a regular annual income from their land, as a typical farmer does. In fact, the average family forest owner has an income of less than \$50,000, and may only generate income from their land, once a generation, if at all. So while landowners want to do the right thing, conservation and stewardship actions take money that these landowners often don’t have.

Minority and other underserved landowners—whose ownerships are often on the frontlines in climate-impacted communities—face even greater barriers to forest stewardship. Challenges around heirs’ property, mistrust of government institutions due to decades of discrimination, and a lack of sufficient professional forestry support prevent access to farm bill programs such as the Environmental Quality and Incentive Program (EQIP), the Conservation Stewardship Program (CSP), and Conservation Reserve Program (CRP).

These barriers are not insurmountable. With the right tools and support, we can empower forest owners to unlock the potential in their forests to support our environment and our economy—all while giving family forest owners the opportunity to achieve their own land management goals.

Previous Farm Bill Progress

Through the last four farm bills, this Committee has made significant progress opening conservation program opportunities for family forest owners, right alongside traditional farmers, paving the way for technical and financial support for family forest owners. For this, we, and the nation’s family forest owners are incredibly grateful.

We estimate today that family forest owners are accessing roughly \$100 million in conservation support from the various EQIP, CSP, CRP, and U.S. Forest Service programs. While this is important progress—that’s less than pennies on the acre if it were split across all family forests today, an investment that does not at all reflect the thousands of dollars per acre of value the public is benefiting from these lands, nor does it reflect the level of investment needed to unlock the power of these lands to mitigate climate change, address the wildfire crisis, and improve the other economic and environmental benefits from these lands.

We know that while increased investment and improvements in programs like EQIP, CSP, CRP and various Forest Service is critical and we urge this Committee to aim for that, we also know that we should not rely solely on government funding to invest in forest stewardship and conservation.

What we also know is that increasingly, society is placing real value on the public benefits our forests can provide in addition to traditional timber value—from the clean water, climate mitigation, and wildfire mitigation values these lands can provide. This value is being unlocked through new markets, such as voluntary carbon markets, that allow corporations to pay landowners for additional carbon benefits that offset their corporate emissions.

We see a significant opportunity for this Committee to make improvements in this next farm bill that will leverage these market opportunities with government investments, helping the government dollars go further while also bringing these significant financing opportunities to rural America.

Leveraging Carbon Markets with USDA Programs for Conservation Finance on Family Forests

The voluntary carbon market is growing exponentially. In fact, market trends suggest this market will be valued between \$90–\$480 billion by 2050. This is driven by corporations who are recognizing the risks of climate change in their business strategies and investing in and committing to significant emissions reductions goals to mitigate these risks. While corporations can, and many are, focused on what they can do within their own “fence line,” for many, it will not be possible to achieve their emissions reduction goals without purchasing carbon credits to offset a portion of their emissions.

Today the demand for quality carbon credits far outpaces the supply of available credits, creating a prime opportunity for agriculture and forestry to meet this demand, as our lands are one of the most important strategies for carbon capture and storage.

At the same time, many of the actions we can take in our woods and lands to capture and store carbon to produce quality carbon credits, are also incredibly valuable for improving forest health and productivity—the goals of family forest owners.

For example, in the Central Appalachian region—Pennsylvania, western Maryland, and West Virginia, one of the key forest actions landowners can take to capture and store more carbon is to avoid high-grading. In this region, high-grading, the practice of removing the best trees and leaving behind the poor quality trees, is a common practice on family lands for a variety of reasons, often related to lack of technical assistance and financial pressures. If we can help landowners change this practice, we can help them create a healthier and more productive forest, produce higher quality wood products, and produce additional carbon on the landscape in the form of quality carbon credits that can be sold in the voluntary carbon market.

This is a win for the landowner, the forest, the forest products industry, and the climate.

This is happening today in the private-sector: through a partnership with The Nature Conservancy, AFF has developed the Family Forest Carbon Program (FFCP). The Family Forest Carbon Program is a unique and credible solution to carbon markets for forest owners with small forest holdings, which represent the bulk of family lands in the U.S., who have largely been left out of carbon market opportunities to date due to costs and technical barriers.

The program works by paying family forest landowners to implement carbon-positive forest management practices such as avoiding high-grading, that result in increased carbon sequestration and storage, as well as improved wildlife habitat and forest resiliency, helping family landowners achieve their land goals. The program provides forester assistance, forest management planning, and ongoing technical support for family landowners as well.

The program then sells the carbon generated by landowners to corporate entities interested in reducing their overall carbon emissions, triggering private investment in rural America that would not have otherwise been invested.

The program's carbon credits are produced using a new, innovative carbon accounting method that is pending final approval by Verra, one of the world's recognized third-party verifiers of carbon and other ecosystem credits.

To date, in the Central Appalachians, we have 173 landowners signed up for the program, another 2,557 that have expressed interested, and we've generated \$49.1 million that support forestry and landowner goals. We have just begun to sign up landowners in the Northeast and have plans for expansion to the Midwest and South this year.

So if this is happening in the private-sector, why is there a need for the next farm bill to help further unlock these markets?

There is no doubt that the private-sector can drive this work, and in fact, the government's role in these markets should be minimal. However, given the potential for these carbon markets to bring significant finance to rural communities and rural landowners for the very same goals that the farm bill's conservation programs are supporting, there is a critical role USDA can and should play alongside these private markets.

In our experience working in these voluntary markets, USDA can play a catalytic role, very similar to the role USDA plays for other agriculture markets for farmers and forest owners, helping to bring low-cost financing, technical and scientific support, and market transparency for landowners. Without this catalytic role, the nation's family forest owners will not benefit from these markets at the scale that's possible, leaving our rural forest owners and rural America out of significant revenue opportunities.

In particular, one of the key roles USDA can play is in the area of low-cost financing. For landowners to participate in voluntary carbon markets and produce credible carbon credits, there is a significant up-front cost to implement the practice, that is not paid back until the additional carbon is generated which can take as much as 20 years. AFF is innovating in this space, developing ways for private finance to step in through the bond market or low-cost loans. However, even with this private finance, given this is a new market, investors need to have certainty in their investment, with a guarantee backing their investment. This is not unlike any other emergent agriculture market.

USDA and the next farm bill can help fill this finance gap in a number of ways:

- by leveraging its own conservation program funds to provide some of this capital which provides significant leverage for conservation programs;
- providing low interest loans or loan or bond guarantees, such as those that would be authorized in the bipartisan Rural Forest Markets Act;

There are other ways USDA can help with financing too, such as serving as a buyer of last resort for credits, providing a low-cost insurance product, and even direct co-investing in credits.

In addition to financing, USDA and the next farm bill can also help further unlock this market opportunity for America's rural landowners by:

- Investing in the forest carbon practice science, data and inventory solutions, and program develop through grants and other funding support that can bring innovation, efficiency, continuity and credibility, and continuous improvement to climate-smart forestry action.
- Supporting landowner engagement and technical assistance including a focus on ensuring support for historically underserved forest owners.

Again, there is significant progress happening in the private-sector in these markets, and USDA's role can be catalytic to ensure that America's landowners can benefit from these markets.

Additionally, it's important to note that we believe carbon markets can and should work alongside traditional forest products markets. Strong markets for forest products, that promote use of carbon beneficial forest products, are critical for family forest conservation and climate impact as well. We encourage USDA to continue and expand investment in the science, data, and support for these markets as well.

Like managing for wildfire resilience, implementing practices to maximize climate mitigation require significant up-front investments. Often it is the cost of implementing management practices to improve forest health and planting new trees that hinder forest owners from reaching their management goals. Families and individuals are willing to invest their time and energy but need incentives to align with their goals, incentives that value the real work and environmental benefits forest owners contribute to our society.

Tackling Wildfire Risk with Family and Private Forest Owners

In addition to helping unlock carbon markets for rural landowners, the next farm bill presents an opportunity to address another significant issue we're facing as a nation: the wildfire crisis in the West.

After almost a decade of unstoppable wildfires, gone is the time for modest wildfire protection measures and a sole focus on defensible space around structures and along roads. In line with the vision and strategy of Chief Moore and the Forest Service, AFF believes we must make a paradigm shift to address the health of our forests holistically and restore natural resiliency to wildfire across all forests in a landscape.

The Agency's Wildfire Crisis Strategy and Implementation Plan identified up to 50 million acres of work outside of National Forest System boundaries needed to make a significant impact in critical firesheds, because wildfires don't recognize boundary lines. This goal is unattainable without cross-boundary partnerships that signify shared ownership in the problem and the solution. Cross-boundary partnerships that will be critical to the success of implementing the strategy and implementation plan include public-private partnerships as well as internal partnerships between the Forest Service and NRCS, creating opportunities to leverage resources across sectors and levels of government.

For example, in the Northern Sierra's in California, a state where fifty-one percent of the of high fire risk lands in the state are private, family lands, the State of California through CAL FIRE, the forestry agency, AFF and many other private-sector partners, and the U.S. Forest Service are partnering to work across all ownership boundaries to treat lands at a scale that is unprecedented. Even with these critical

partnerships, we have less than half of the available funding to treat the needed lands on private lands. A significant barrier to this work is match requirements for work on non-Federal lands. When treatments on private lands cost upwards of \$2,000 an acre, family landowners are not able to bring the level of match needed to accomplish the work.

Many forest owners want to do the work and are doing the work, but not at the scale needed to get ahead of the wildfire crisis, due to their own financial limitations.

The Healthy Forest Restoration Act of 2003, as amended in the 2018 Farm Bill, supports cross-boundary work to reduce hazardous fuels by allowing a portion of the U.S. Forest Service hazardous fuels funding to be used by states, private landowners, and non-governmental organizations for work on cross-boundary projects on non-Federal lands, prioritizing high risk areas. While this was a significant leap forward to improve the resilience of forest and rangeland ecosystems, the resources provided to private forest land, particularly family forest owners, have been minimal and insufficient to date.

The Infrastructure bill provided significant new funding for wildfire mitigation. However, the investment is only a down payment on the \$50–\$60 billion needed over the next 10 years to mitigate our wildfire crisis. What is needed is an intentional focus on critical landscapes inclusive of cross-boundary ownership by increasing funding that is specifically directed to private lands within and around fireheds, while encouraging public-private partnerships to leverage funds and capacity to expand the Forest Service’s reach into impacted communities.

Cost-share programs like Environmental Quality and Incentive Program (EQIP) have the greatest potential to relieve the financial burden landowners experience with managing for wildfire mitigation and other conservation outcomes. However, these programs do not have enough funding to meet current contract demands and often present administrative hurdles for landowners to access. Streamlining processes across states to ensure consistency and transparency in the selection process, and increased funding for both cost-sharing and forestry technical assistance would improve program delivery significantly.

In addition to working cross-boundary to mitigate wildfire risk, with the growing wildfire crisis, family forest owners are seeing their forests, their livelihood and legacy, destroyed by these catastrophic wildfires, with little support to get back on their feet after the wildfires.

Forest owners are not eligible for crop insurance and the available disaster programs, including the Emergency Forest Restoration Program, are in need of significant reform. The farm bill provides an opportunity to improve disaster recovery programs to better support family forest owners that are increasingly facing billions in damages and lost value from natural disasters such as wildfires and hurricanes. Without this support, landowners are left with little path to get back on their feet and these forests can then become a liability for local water quality and public health.

2023 Farm Bill Policy Solutions

While the 2018 Farm Bill included important improvements and critical investments to support family forest conservation, we recommend the following improvements be considered in the 2023 Farm Bill and we look forward to working with the Committee to develop these concepts.

- (1) **Creative solutions to leverage and unlock private-sector markets including carbon markets**, with support for:
 - low interest loans or loan or bond guarantees, such as those that would be authorized in the bipartisan Rural Forest Markets Act;
 - leveraging USDA conservation program funds to provide investment alongside private market investment, with improvements in the Regional Conservation Partnership Program’s Alternative Funding Arrangements;
 - forest carbon practice science, data and inventory solutions, and program develop through grants and other funding support that can bring innovation, efficiency, continuity and credibility, and continuous improvement to these private-sector markets;
 - science, data, and technical development of forest products markets;
 - landowner engagement and technical assistance including a focus on ensuring support for historically underserved forest owners.
- (2) **Strengthen Wildfire Mitigation and Disaster Recovery on Family Forests with support for:**

- Increased financial and forestry technical assistance for wildfire mitigation and disaster recovery through programs such as EQIP;
 - Strengthening funding provisions in the Infrastructure bill that allow for increased cross-boundary action, including match waivers where appropriate;
 - Improvements in programs such as the Emergency Forest Restoration Program and other disaster programs aimed at forest owners.
- (3) **Continued investment and improvements in USDA conservation programs including:**
- Increase funding for the Landscape Restoration Program and encourage public-private partnerships, with consideration for underserved communities;
 - Reauthorize RCPP with a more streamlined administrative process to be more aligned with other Title II programs[;]
 - Reauthorize restoration programs such as Conservation Stewardship Program and Conservation Reserve Program[.]

In conclusion, we truly appreciate this Committee's work on forestry and see the 2023 Farm Bill as an opportunity to build on this important work and leverage significant private-sector markets and funding in the process. Thank you for the opportunity to share our views and we stand ready to assist as AFF and the Forests in the Farm Bill Coalition, as the Committee's work continues.

The CHAIR. Thank you for being absolutely right on time with your testimony.

Votes have been called, so we are going to recess while Members of the Committee—there is official language. There have been two votes called on the House Floor. The Committee will take a brief recess, and we will reconvene shortly. We appreciate your patience. Thank you.

[Recess.]

The CHAIR. We will now resume the Subcommittee hearing. Mr. Reed, please begin when you are ready. You have 5 minutes.

STATEMENT OF DOUGLAS REED, PRESIDENT, GREEN DIAMOND RESOURCE COMPANY; CHAIR, BOARD OF DIRECTORS, NATIONAL ALLIANCE OF FOREST OWNERS, SEATTLE, WA

Mr. REED. Thank you, Chair Spanberger, Ranking Member LaMalfa, distinguished Members of the Committee. I appreciate the opportunity to testify today. My name is Douglas Reed. I am the President of Green Diamond Resource Company, a fifth-generation, family-owned forestry company, started by my great-great-grandfather in 1890. Today, our company owns and operates working forests in the West and South. Green Diamond's long-term commitment to forest stewardship is at the heart of our business.

I am here today in my role as Chairman of the board of NAFO, the National Alliance of Forest Owners. NAFO represents privately owned working forests like ours. These forests provide clean air and water, wildlife habitat, and jobs. Of course, they also provide a steady, sustainable supply of products for building homes and schools and thousands of other everyday items. Our businesses also support 2.5 million American jobs, mainly in rural communities.

Working forests are also a critical natural climate solution. Yet there is room to do more, and we have laid a path to get there as a sector. Recently, I joined 42 of my fellow forestry CEOs and our counterparts at the Environmental Defense Fund and The Nature

Conservancy to adopt a climate roadmap for private working forests. We are carrying these ideas to farm bill stakeholder groups.

Working forests sequester and store carbon. At just under half the nation's forest land base, private working forests provide 90 percent of domestic timber harvests, 80 percent of our nation's annual net carbon sequestration, and nearly half of our long-term forest carbon storage. To put this in context, privately owned working forests alone sequester more carbon than is emitted annually by 100 million passenger vehicles.

Sustainably sourced forest products are also a climate solution. Half the dry weight of wood is carbon taken out of the air. When we substitute wood for other carbon-intensive building materials, we can reduce the carbon footprint of our buildings.

The farm bill can help us reach a greener, more resilient future. We are interested in three workstreams: First, the Forest Inventory and Analysis Program; second, programs to support building with wood; and third, addressing the wildfire crisis.

First, FIA: USDA's Forest Inventory and Analysis Program provides vital information on our nation's forest resources. At Green Diamond, we have developed carbon offset projects, and we have efforts underway in four states. Key to this type of work is reliable data to ensure that these projects are rooted in facts and science. As interest in forests as a climate solution grows, more and more stakeholders rely on FIA data to make decisions, sometimes in new ways. Despite attention in the 2018 Farm Bill and increases in funding since then, the program needs additional support to meet all these growing uses. I recommend Congress direct the Forest Service to establish a national 5 year measurement cycle, standardized protocols for data collection and analysis, and ensure FIA has the strategic direction it needs to grow and adapt. These changes should be additive to the good work FIA is already doing.

Second, building with wood. Wood is climate friendly, safe, durable, and can be grown locally, which supports American jobs. With new technology, we can use wood in new ways. I would like to thank you for the successful Timber Innovation Act in the 2018 Farm Bill. There are now over 1,300 mass timber buildings in the U.S., a big jump from 2018. Yet we still lag far behind Europe on the use of mass timber, despite our abundant sustainably managed forests. The 2023 Farm Bill should build on the Timber Innovation Act. NAFO, together with partners such as the American Wood Council, looks forward to working with you on this effort.

Third, severe wildfire: Almost exactly a year ago the Bootleg Fire started on Federal ground and devastated 413,000 acres in southern Oregon, including 110,000 acres of Green Diamond property. Chief Moore's testimony this morning is right that more fires start on private lands where people live and work. But while just 20 to 30 percent of fires begin on Federal lands, 70 to 80 percent of acres burn on our Federal land. What we know is that all stakeholders need to work together, and that active forest management is a proven tool to improve forest health and resilience. Yet, worsening fire seasons are making stewardship objectives harder to achieve. Congress should encourage the Forest Service to use all available resources to fight fires as vigorously as possible. The Forest Service and private forest owners in the West are partnering to fight fire

across land ownership. This innovative partnership will give field officers and incident commanders more tools, more local knowledge and experience to keep fires manageable and less dangerous. We would like to thank Chief Moore for his leadership on these issues.

And thank you again for having this hearing and allowing us to participate. We stand ready to provide any resources the Committee would like.

[The prepared statement of Mr. Reed follows:]

PREPARED STATEMENT OF DOUGLAS REED, PRESIDENT, GREEN DIAMOND RESOURCE COMPANY; CHAIR, BOARD OF DIRECTORS, NATIONAL ALLIANCE OF FOREST OWNERS, SEATTLE, WA

[Chair] Spanberger, Ranking Member LaMalfa, and distinguished Members of the House Agriculture Committee, on behalf of Green Diamond Resource Company and the National Alliance of Forest Owners (NAFO), thank you for the opportunity to testify on the impacts of the 2018 Farm Bill on private working forests.

Introduction

My name is Douglas Reed, and I am President of Green Diamond Resource Company, a forest products company started by my great-great-grandfather outside Shelton, Washington, in 1890. Today, our company owns working forests in Washington, Oregon, Montana, and California. A subsidiary, Green Diamond Management Company, provides forest management services in the U.S. South and West. Like many U.S. forestry companies, Green Diamond's forests are third-party audited and certified by sustainable forest management certification systems.

Green Diamond's long-term commitment to forest stewardship is at the heart of how we run the company. Our forest management is guided by experience and backed by science. Through a continuous cycle of growth, harvest and regrowth, we can ensure that our forests, and therefore our business, will continue to thrive for another 130 years. Our forests provide environmental, social, and economic benefits for the communities where we operate today, and our mission is to ensure that remains true for many generations to come. This commitment is reflected in our day-to-day forest management and in the many innovative, voluntary forest and wildlife conservation programs implemented across our timberlands.

More than $\frac{1}{3}$ of the United States is covered by forests, and 47% of U.S. forests are privately owned working forests—forests owned by families, businesses, and investors. Private working forests provide clean air and water, wildlife habitat, and jobs through market demand for forest products. These forests are sustainably managed to supply a steady, renewable supply of wood for lumber, plywood, energy, paper, and packaging, providing more than 5,000 items that consumers use every day. U.S. private working forests support *2.5 million American jobs*,¹ mainly in rural communities.

Today, I'd like to focus on the impact of the 2018 Farm Bill on working forests and our contributions to the U.S. economy, environment, and climate mitigation.

Importance of Private Working Forests & Wood Products to the Climate

Working forests are a critical natural climate solution due to their natural ability to sequester and store carbon. Maximizing the climate mitigation benefits from private working forests involves three key elements: (1) Strong forest products markets to maintain and increase private working forests on the landscape and continue investment in their health, resilience and productivity; (2) Improved tools and market-based approaches to expand forest carbon sequestration and storage; and (3) Advancements in the use of long-lived wood products and the underlying analysis needed to compare these products with more carbon intensive alternatives. Together, sustainably managed working forests and the forest products they produce are already one of our nation's greatest assets for achieving our climate goals: U.S. forests and forest products offset 15% of the nation's annual industrial carbon emissions.

At just under half of the nation's forest land base, private working forests tell a remarkable carbon story: they provide 90% of domestic timber harvests, while also

¹ https://nafoalliance.org/wp-content/uploads/2018/11/Forest2Market_Economic_Impact_of_Privately-Owned_Forests_April2019.pdf.

providing 80% of our nation's annual net carbon sequestration² and nearly 50% of our long-term carbon storage. To put this in context, *working forests annually sequester more carbon than is emitted by all U.S. passenger vehicles each year.*³ In addition, durable wood products—like homes, buildings, and furniture—store significant amounts of carbon long-term. As a natural material, forest products are recyclable, biodegradable, and renewable. When used to displace more fossil fuel intensive materials, forest products can play a critical role in reducing net atmospheric carbon over time. Healthy markets for forest products, and the continuous cycle of growth, harvest, and regrowth, enable private forest owners to maximize the climate mitigation power of their forests, wood products, and the carbon benefits they provide.

Sustainably managed private working forests are more than capable of meeting additional demand for wood. Each year we harvest about 2% of our working forest land base, while also replanting or regenerating an equal acreage. Replanting and natural regeneration after harvest quickly restarts the growth process and reestablishes the sequestration and storage capacity on the land. *According to the USDA,*⁴ from 1953 to 2011, in a time of expanding population and increasing demand for homes, paper products, and energy, the total volume of trees grown in the U.S. increased by 60%.⁵ Today, private forest owners *are growing 43% more wood than they harvest.*⁶

There are also other important environmental benefits provided by private working forests. Water supplies for many urban and rural communities around the country originate in and pass through forested watersheds, where forests act as a natural filtration system for *nearly 30% of the water we drink.*⁷ Private working forests also play an important role in keeping abundant species abundant, while also conserving at-risk and declining species. Access to these forests is vital to wildlife conservation, as *60% of our nation's at-risk species rely on private forestland for survival.*⁸ Collaborative conservation efforts such as NAFO's *Wildlife Conservation Initiative*⁹ can benefit species while keeping private working forests working.

I am proud that private working forest owners like Green Diamond are leading the way in pursuing natural climate solutions. Recently, I joined the leaders of 42 other leading U.S. forest-owning companies, NAFO, The Nature Conservancy, the Environmental Defense Fund, American Forests, and the American Forest Foundation to adopt a unique set of *Principles on Private Working Forests as a Natural Climate Solution.*¹⁰ These “CEO Principles” express our common vision for increasing the climate mitigation of sustainably managed private working forests and sustainably produced solid wood products through market and incentive-based approaches.

Through NAFO, private working forest owners can speak with one voice to policymakers, and we are actively engaged in the farm bill, bringing nearly 50 member companies and over 46 million acres of sustainably managed working forests—an area larger than my home state of Washington—to the table. NAFO is a part of the Forests in the Farm Bill Coalition, an important group led by several of the organizations here with us today. NAFO is an active member of the Forest-Climate Working Group, which provides a unified voice within the forestry community for advancing forest climate policy. NAFO is also a founding member of the Food and Agriculture Climate Alliance, which works across the working lands community to advance broader climate mitigation solutions.

Climate and Carbon Data in the Farm Bill

The USDA's Forest Inventory and Analysis (FIA) program, a central component of the Forest Service's research program, provides vital information on our nation's forest resources. FIA's forest data and analysis is national in scope and consistently measured across ownerships every year, providing a common source of reliable information for an increasing number of stakeholders. Private forest owners rely on and reference FIA data and analyses to make decisions, and as interest in forests and

² <https://nafoalliance.org/wp-content/uploads/2022/07/NCASI-2022-C-Data-Memo-to-NAFO-with-Tables.pdf>.

³ <https://www.forestcarbondaataviz.org/>.

⁴ https://www.fs.fed.us/research/publications/gtr/gtr_wo87.pdf.

⁵ <https://www.fs.usda.gov/treearch/pubs/57903>.

⁶ https://nafoalliance.org/wp-content/uploads/2019/07/Forest2Market_Inventory_and_Harvest_Trends_05-24-2019.pdf.

⁷ <https://www.fs.fed.us/managing-land/private-land>.

⁸ <https://nafoalliance.org/wp-content/uploads/Wildlife/The-geography-of-private-forests-that-Support-At-Risk-Species.pdf>.

⁹ <https://nafoalliance.org/issues/wildlife/>.

¹⁰ <https://nafoalliance.org/ceo-principles/>.

forest carbon grows, so too does our need for information from FIA. At Green Diamond, we have actively pursued carbon sequestration opportunities, and we have projects approved or in progress in four states: Alabama, California, Oregon, and most recently Montana. Key to fostering this type of work is reliable data to ensure that what we project will happen actually comes to pass.

FIA serves as the authoritative data source for our nation's forests and forest carbon measuring, monitoring, reporting and verification. Yet, there are inconsistencies in data measurement cycles across geographies, and new remote sensing technology remains hard to integrate with FIA's existing approaches. Despite attention in the 2018 Farm Bill and increases in funding since then, the current design and capabilities of the program are unable to meet growing needs. Simply put, the world has changed since 2018. Demand for forest carbon data has skyrocketed as the power of forests to address climate change has attracted attention and investors. Increased adoption of remote sensing in private data collection has increased demand for the same from FIA. Finally, we are seeing disturbances like wildfire and hurricanes at a rate not seen before, meaning that the 7 to 10 year remeasurement cycles used by FIA are not keeping up with the rapid changes our forests are experiencing.

In particular, I recommend Congress direct the USDA and the Forest Service to:

- Establish a national 5 year measurement cycle (including the Intermountain West and Alaska) for base grid data collection and analysis with nationally consistent field protocols for measurement and analysis. This will lead to improved data uniformity and greater certainty in carbon estimation, allowing for more accurate analysis of the resource and carbon impacts of management decisions.
- Standardize protocols for national data collection and analysis and for measurement variables, and standardize previously reported data to include estimates from the Intermountain West and Alaska. This will lead to more credible and consistent information.

I encourage Congress to provide additional direction and resources to ensure the FIA program has the strategic direction needed to provide updated, accurate, and reliable information on the status and trends of our forested resources. These changes should be additive, not taking away from the good work FIA is already doing. Green Diamond and NAFO stand ready to offer insight and recommendations into how to bolster this important program.

Sustainable Wood Construction in the Farm Bill

Half the dry weight of wood is stored atmospheric carbon. When sourced from sustainably managed forests, long-lived wood products act as carbon vaults, storing carbon and keeping it out of the atmosphere for the full lifecycle of the product. Wood products in the U.S. currently store *nearly 9.8 billion metric tons of*¹¹ CO₂e, which is more than *twice the amount of carbon stored in all National Parks combined.*¹²

The 2018 Farm Bill recognized the importance of sustainable wood construction, and I recommend this continue into the 2023 Farm Bill. Specifically, the Timber Innovation Act leveraged various farm bill programs to advance sustainable wood construction, and it has made a significant impact. There are now over 1,300 mass timber buildings being designed, under construction, or built in the U.S., representing a 50% increase from July 2020 to December 2021, *according to WoodWorks.*¹³ Yet, despite this progress and continued demand for better, more climate-friendly housing and infrastructure, the U.S. is behind on mass timber production and use. In the 2023 Farm Bill, Congress should build on the Timber Innovation Act to expand opportunities for sustainable wood construction, leveraging the Forest Products Lab and programs like Wood Innovation Grants. The 2023 Farm Bill can reduce carbon emissions and increase carbon storage through support for building with wood. We look forward to providing specific recommendations in the coming months, together with the American Wood Council and other partners.

Buildings are responsible for 39% of global carbon emissions and traditional building materials require a lot of fossil fuel energy to produce. *Steel and concrete produce 15% of global emissions,*¹⁴ which is more emissions than any nation on [E]arth with the exception of the U.S. and China.¹⁵ New engineered wood products,

¹¹ <https://www.epa.gov/sites/default/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>.

¹² <https://www.fs.usda.gov/treesearch/pubs/57699>.

¹³ <https://www.woodworks.org/resources/u-s-mass-timber-projects/>.

¹⁴ <https://iea.blob.core.windows.net/assets/3f901e93-c083-4649-a9e6-c591e28a7b70/ETP2015.pdf>.

¹⁵ <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>.

like mass timber, offer economic, social, and environmental benefits. Building with wood is a powerful solution for avoiding emissions and storing carbon to maximize the value of our investment.

Wood is a safe, durable, and efficient building material, storing carbon for the entire life of the building and because it is biodegradable and easily recycled, wood does not pose environmental challenges at the end of a building's life. Mass timber uses wood panels that are pre-built and then easily assembled with fewer trucks and equipment, with little to no construction site waste. Mass timber has been shown through research to be blast-resistant, fire-resistant, and earthquake-resistant. Increasing use of wood in buildings can reduce construction emissions by *up to 44% while also storing significant amounts of carbon in wood panels and assemblies*¹⁶ adding tangible value to the building. Mass timber can also be grown locally as a domestic building material supporting American jobs.

Sustainable forest management ensures increased use of wood in construction truly achieves climate, carbon, and other positive environmental outcomes. Third-party certification systems ensure sustainable practices in support of climate benefits. In the U.S. certification includes programs to certify forests to a forest management standard, chain of custody certification programs, and responsible wood fiber sourcing programs provided by the *Sustainable Forestry Initiative*,¹⁷ the *American Tree Farm System*,¹⁸ and *Forest Stewardship Council*.¹⁹ We were pleased to see the clarification in the 2018 Farm Bill to give all qualified certification programs equal treatment in any Federal procurement or other climate change policy involving private working forests. This is an important clarification and should be carried forward in all future farm bills.

Wildfire in the Farm Bill

Beginning in early July 2021, the Bootleg Fire in southern Oregon, the third largest wildfire in Oregon's history, devastated a drought-stricken landscape. Among the 413,000 acres that burned were some 110,000 acres of Green Diamond timberland. We literally watched years of investment and work go up in smoke.

Increasingly intensive fire seasons severely impact the environment, local and regional economies, and public health and safety. Federal, state, and local forest owners and managers have a shared stewardship responsibility to protect natural resources and the communities that depend on them, especially during fire season. Yet, worsening fire seasons are making stewardship objectives more difficult to achieve. Despite increases in Federal firefighting resources, local fire officers and incident commanders often face difficult choices on how to best deploy limited personnel and equipment to attack and extinguish fires during the height of fire season. I would like to commend Chief Moore for rising to the occasion and sending important signals to those in the field about fundamental changes in approach by the Forest Service this fire season.

To help address these challenges, the U.S. Forest Service and private forest owners are taking a new and innovative approach with the objective of better protecting private lands that are providing significant climate and other public benefits. Private forest owners with holdings in western states are partnering with the Forest Service to provide private resources, including people, equipment, and knowledge of local terrain and conditions, to fight fire in areas across ownerships. This partnership will give field officers and incident commanders more tools to keep fires more manageable and less dangerous, local knowledge and experience to maintain safe firefighting operations, and help to better identify and evaluate safety risks and opportunities. It will also enable Federal, state, and private forest owners to better achieve outcomes that protect the resources and communities in their shared stewardship.

Development of this partnership is currently underway and will be commemorated in a memorandum of understanding between the parties. We all want to be good neighbors and by working together, we can protect our forest resources, private property, local jobs, and our local communities. I appreciate that Green Diamond has been included in the Wildland Fire Mitigation and Management Commission created in the bipartisan Investing in Infrastructure and Jobs Act. We look forward to working with the Forest Service this summer, and we are committed to using all available public and private resources to help put the fires out.

¹⁶ https://rmi.org/wp-content/uploads/dlm_uploads/2021/08/Embodied_Carbon_full_report.pdf.

¹⁷ <https://forests.org/>.

¹⁸ <https://www.treefarmssystem.org/>.

¹⁹ <https://us.fsc.org/en-us>.

Conclusion

The true scale of our forests' climate impact is hard to fathom. My colleagues at the National Alliance of Forest Owners have put together a forest carbon data visualization—available at *ForestCarbonDataViz.org*²⁰—that uses publicly available EPA and USDA Forest Service's FIA data to show the enormous carbon contributions of private working forests and solid wood products. We are proud of the climate mitigation work we do, as private working forest owners.

Thank you again for conducting this hearing. The 2018 Farm Bill made important strides in advancing policies to improve carbon data, increase sustainable wood construction, and address the wildfire crisis. The 2023 Farm Bill can do even more. Green Diamond Resource Company and the National Alliance of Forest Owners stand ready as a resource to this Committee as it addresses the upcoming farm bill and the solutions private working forests can offer.

The CHAIR. Thank you for your testimony.

The chair now recognizes Mr. Martin. Please begin when you are ready. You have 5 minutes.

STATEMENT OF CHRISTOPHER MARTIN, FORESTER, STATE OF CONNECTICUT; PRESIDENT, NATIONAL ASSOCIATION OF STATE FORESTERS, HARTFORD, CT

Mr. MARTIN. Thank you, Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee for holding this hearing today and for the opportunity to testify on behalf of the National Association of State Foresters. I am Christopher Martin, Connecticut State Forester and NASF President. NASF represents the directors of forestry agencies in all 50 states, five U.S. Territories, three nations in the Compact of Free Association with the U.S., and the District of Columbia.

State Foresters deliver technical and financial assistance to private landowners, with the conservation of more than $\frac{2}{3}$ of the nation's forests. They also partner with Federal land management agencies through cooperative agreements and Good Neighbor Authority to manage National Forests and Grasslands. We are the principal conduit for connecting Federal programs and private landowners working with cooperative extension services, certified foresters, conservation districts, and local communities to administer, implement, and deliver the state and private forestry programs authorized under the Cooperative Forestry Assistance Act of 1978 (Pub. L. 95–313), as well as other Federal programs and authorities. We appreciate this Subcommittee holding this important hearing today to review the forestry provisions from the 2018 Farm Bill as we work toward developing the next farm bill.

I would like to highlight for you today three policy priorities for NASF we have identified for addressing the next farm bill. First, the Good Neighbor Authority has allowed the Forest Service to partner with states on Federal forest restoration and management projects, facilitating critical work to improve species habitat, enhance the watersheds, and reduce hazardous fuels and mitigate wildfire risks. In the 2018 Farm Bill, Congress expanded GNA to make Tribes and counties eligible entities to enter into Good Neighbor agreements. However, Tribes and counties are not afforded the same authority as states to retain GNA project revenue to reinvest in conservation, greatly reducing the significant incentive to engage and partner on critical management projects, including wildfire

²⁰ <http://www.forestcarbondaaviz.org/>.

mitigation, invasive species management, and habitat maintenance.

Additionally, the 2018 Farm Bill removed the ability for restoration services that were agreed to under the Good Neighbor agreements to take place off Federal lands. This means adjacent state, Tribal, county, and other land that is essential to the health and productivity of National Forests can no longer be restored as a comprehensive landscape from the revenues generated from GNA projects.

NASF supports authorizing counties and Tribes to retain and expand GNA revenues generated from GNA projects and restoring the cross-boundary nature of GNA by removing the requirement that revenue from GNA projects must be spent solely on Federal lands.

Additionally, NASF supports further expanding GNA to all Federal land management agencies, making the authority permanent or at a minimum extending the 2023 sunset date for states to retain GNA revenue and amending the GNA to authorize the reconstruction, repair, and restoration of roads administered by the Bureau of Land Management and other Federal agencies.

A second priority from the 2018 Farm Bill codified the Landscape Scale Restoration Program but also stipulated a new rural requirement for LSR, resulting in a subsequent rulemaking by the Forest Service limiting LSR work to communities of less than 50,000 people. This significantly reduced the scope and efficacy of the program, eliminating many opportunities for the urban and community forestry program work and reduce the potential for hazardous fuels reduction projects under LSR within the wildland-urban interface. NASF supports modifying the language in section 8102 of the 2018 Farm Bill that designated the program strictly as a *rural* program.

To be as impactful as possible across all ownerships and all lands, including cities, suburbs, and towns, should be eligible for LSR support, as they were prior to the 2018 Farm Bill. The program should not exclude larger communities or populations that depend on trees for their health and well-being, particularly in historically underserved communities. Urban and community forestry projects under LSR are crucial to ensuring all people have equitable access to the many benefits of trees.

Section 8401 of the 2018 Farm Bill provided a new authority for the Forest Service to make grants available to State Foresters for hazardous fuel reduction projects that crossed landownership boundaries. While this new authority is working well in increasing the authorization for appropriations as authorization for appropriations is warranted, it is our understanding the Forest Service used this authority to codify an existing mechanism for implementing cross-boundary hazardous fuel projects commonly known as *Stevens Money*, an appropriations provision championed by the late Senator Ted Stevens. Our written testimony provides more background on the history and purpose of this funding.

The intent of the Forests in the Farm Bill Coalition for section 8401 in the 2018 Farm Bill was to supplement existing mechanism for implementing cross-boundary hazardous fuel projects and augmenting funding available for accomplishing this work, not to sup-

plant Stevens Money. We look forward to working with the Members of this Subcommittee and our partners in the Forests in the Farm Bill Coalition here with us today in developing a solution that will best utilize all available authorities and funding accomplishing this important work.

Thank you for the opportunity to testify here today, and I look forward to answering your questions.

[The prepared statement of Mr. Martin follows:]

PREPARED STATEMENT OF CHRISTOPHER MARTIN, FORESTER, STATE OF CONNECTICUT;
PRESIDENT, NATIONAL ASSOCIATION OF STATE FORESTERS, HARTFORD, CT

The National Association of State Foresters (NASF) is pleased to provide written testimony to the House Agriculture Subcommittee on Conservation and Forestry for this important hearing on, *A 2022 Review of the Farm Bill: Forestry*. Thank you, [Chair] Spanberger, Ranking Member LaMalfa, and Members of the Committee, for holding this hearing today and for the opportunity to testify on behalf of NASF.

NASF represents the directors of the forestry agencies in all 50 states, five U.S. Territories, three nations in compacts of free association with the U.S., and the District of Columbia. State Foresters deliver technical and financial assistance to private landowners for the conservation of more than $\frac{2}{3}$ of the nation's forests. They also partner with Federal land management agencies through cooperative agreements and Good Neighbor Authority (GNA) to manage National Forests and Grasslands. All state forestry agencies share a common mission to protect America's forests and most have statutory responsibilities to provide wildland fire protection on all lands, public and private.

State Foresters believe the farm bill is a unique opportunity to support rural America's economic backbone and improve the quality of life for all Americans by enhancing support for America's trees and forests.

Between the 2018 Farm Bill and the 2018 Omnibus Appropriations Bill, several significant achievements were accomplished, providing new authorities for improving forest management. The 2018 Farm Bill forestry title built upon 2014 achievements, streamlining decision-making and expanding authorities within several programs and creating several new programs and authorities while continuing to address and provide for cross-boundary and landscape-scale forest management.

Recent farm bills have also been instrumental in elevating the role of forestry in conservation title programs. State forestry agencies are proactively involved in working with the Federal agencies in successfully implementing these programs which provide invaluable support to small private landowners in their forest management objectives. NASF appreciates the ongoing program support and attention in the farm bill that is responsible for significant on-the-ground results due to these partnerships.

Good Neighbor Authority

The GNA program has allowed the USDA Forest Service (Forest Service) to partner with states on Federal forest restoration and management projects, facilitating critical work to improve species habitat, enhance watersheds, and reduce hazardous fuels and mitigate wildfire risks.

Since GNA was first authorized by Congress with the 2014 Farm Bill, at least 36 states have broken ground on over 130 GNA projects. Through these GNA projects, states are contributing to the restoration of Federal forests on a scale never before realized. According to the Congressional Research Service, the amount of Forest Service timber sold under GNAs has increased from 14.4 million board feet in fiscal year (FY) 2016 to 182.6 million board feet in FY 2019.

In the 2018 Farm Bill, Congress expanded GNA to make Tribes and Counties eligible entities to enter into Good Neighbor Agreements. However, Tribes and Counties were not afforded the same authority as states to retain GNA project revenues to reinvest in conservation, greatly reducing a significant incentive to engage and partner on critical management projects including wildfire mitigation, invasive species management, and habitat maintenance.

Additionally, the 2018 Farm Bill removed the ability for restoration services that were agreed to under the Good Neighbor Agreement to take place off Federal lands. This means adjacent state, Tribal, county, and other land that is essential to the health and productivity of National Forests can no longer be restored as a comprehensive landscape with revenues generated from GNA projects.

NASF supports authorizing counties and Federally Recognized Tribes to retain and expend GNA timber sale revenues and restoring the cross-boundary nature of GNA by removing the requirement that GNA timber sale revenues must be spent solely on Federal lands.

Additionally, NASF supports further expanding GNA to all Federal land management agencies, making the authority permanent, or at a minimum extending the October 1st, 2023, sunset date for states to retain GNA timber sale revenue, and amending GNA to authorize the reconstruction, repair, and restoration of roads administered by the Bureau of Land Management, and other Federal agencies (should GNA be expanded to include other Federal land management agencies).

Landscape Scale Restoration Program

The 2018 Farm Bill codified the Landscape Scale Restoration (LSR) program which was a key policy priority at the time for NASF. The program originated with the 2008 Farm Bill and existed for a decade as a jointly administered program between the Forest Service and state forestry agencies.

In addition to codifying the program, the 2018 Farm Bill also stipulated a new “rural” requirement for LSR. As a result, and per a subsequent rulemaking made by the Forest Service, LSR work can only be conducted in communities made up of fewer than 50,000 people. This change significantly reduced the scope and efficacy of the program by prohibiting work in areas across the United States with legitimate need for LSR grant support.

The LSR rural requirement has eliminated opportunities for state forestry agencies to leverage their Urban and Community Forestry (U&CF) program work, and greatly restricted their ability to conduct hazardous fuels reduction projects under LSR in the areas with populations greater than 50,000 including many areas within the Wildland Urban Interface (WUI).

LSR should be returned to a flexible program able to address the highest priority needs across landscapes as identified in state Forest Action Plans, regardless of community size. The program should not exclude larger communities or populations that depend on trees for their health and well-being, particularly in historically marginalized communities.

Forests aren’t just found on mountainsides or in wildlands, but in cities, towns, and communities as well. Community forests—especially in areas with over 50,000 residents—are shown to significantly improve human health outcomes and provide tremendous socioeconomic benefits. Healthy community forests aren’t a given; they take work. For decades, state forestry agencies have helped communities manage their forests by providing technical and financial assistance for the planting and care of street, park, and other community trees. State forestry agencies and their U&CF programs are crucial to ensuring *all* people have equitable access to the many benefits of trees.

The LSR program has supported many successful U&CF projects in priority areas with competitive grant funding in the past. It is crucial that LSR projects can once again include U&CF work.

NASF supports striking the rural requirement from LSR legislative language established in the 2018 Farm Bill. To be as impactful as possible across ownerships and on a landscape scale, *all* lands—including cities, suburbs, and towns—should be eligible for LSR support as they were prior to the 2018 Farm Bill.

Promoting Cross-Boundary Wildfire Mitigation

The 2018 Farm Bill amended section 103 of the Healthy Forests Restoration Act (16 U.S.C. § 6513), providing a new authority for the Forest Service to spend up to \$20 million on grants to state foresters for hazardous fuel reduction projects that cross land ownership boundaries, particularly in priority landscapes as identified in state FAPs.

While section 8401 of the 2018 Farm Bill, *Promoting Cross Boundary Wildfire Mitigation*, is working well, there is a need for increasing the authorization of appropriation for this provision. Additionally, it is our understanding the Forest Service used this new authority to codify an existing mechanism for implementing cross-boundary hazardous fuels projects commonly known as ‘Stevens Money’. As such, the helpful authorities provided under ‘Stevens Money’ are no longer being utilized, and the net increase to the authorization of appropriations for cross-boundary hazardous fuels projects is \$5 million. The end result has not been \$20 million in new authority.

In FY 2002, Senator Ted Stevens championed the addition of earmarked hazardous fuels funds. These funds are often referred to as ‘Stevens Money’ and were to be spent towards hazardous fuels treatments on non-Federal lands that were adjacent to National Forest System lands where hazardous fuels work was being con-

ducted or where other work was being conducted that increased the threat to the adjacent lands. The authorization allowed for money to be spent to protect communities when hazard reduction activities were being planned on adjacent National Forest System lands.

This authorization allowed for work on Federal and non-Federal lands to complement each other and provided flexibility for the Forest Service to use the money where it would provide the most benefit. This provision has been added to the Interior-Environment and Related Agencies appropriations bill every year since FY 2002. In the FY 2003 Interior-Environment and Related Agencies appropriations bill the following language was added: "Provided further, that in addition to funds provided for State Fire Assistance programs, and subject to all authorities available to the Forest Service under the State and Private Forestry Appropriation, up to \$15,000,000 may be used on adjacent non-Federal lands for the purpose of protecting communities when hazard reduction activities are planned on National Forest lands that have the potential to place such communities at risk" capping 'Stevens Money' at \$15 million.

The intent from the Forests in the Farm Bill Coalition for section 8401 of the 2018 Farm Bill was to supplement existing mechanisms for implementing cross-boundary hazardous fuels projects, and augment funding available for accomplishing this work, not to supplant 'Stevens Money'. Both 'Stevens Money' and the 2018 Farm Bill authority are important tools in the toolbox for mitigating wildfire risk for communities. We look forward to working with Members of the Subcommittee and our partners in the Forests in the Farm Bill Coalition on developing a solution that will best utilize all available authorities and funding for accomplishing this important work.

Post-Disaster Landowner Assistance and the Emergency Forest Restoration Program

Since the 2018 Farm Bill was passed, forest landowners across the country have been impacted by a myriad of natural disasters. In the wake of hurricanes in the South, the 2020 Derecho in Iowa, catastrophic wildfires in the West, and tornados, ice storms and more everywhere in between, we have realized the significant Federal programming gap that exists in helping landowners reforest and get back on their feet. The Emergency Forest Restoration Program (EFRP) which was codified in the 2008 Farm Bill (Food, Conservation, and Energy Act of 2008) has proven to be woefully inadequate and bureaucratically cumbersome for most landowners to benefit from. Forest landowners should have equal support from the Federal Government compared to other agriculture commodities when faced with the impacts of natural disaster. Timely and ecologically-proper timber salvage and reforestation helps ensure our nation's private forestlands continue to provide public benefits like clean air and water, recreation opportunities, rural economic stimulus and more.

Forestry Support under Conservation Programs

The Environmental Quality Incentives Program (EQIP) administered by the Natural Resources Conservation Service (NRCS) is playing an increasingly important role in helping non-industrial private forest owners (NIPF) access both financial and technical assistance to sustainably manage their forests. EQIP and other conservation title programs like the Conservation Stewardship Program and Conservation Reserve Program are absolutely essential to helping private landowners keep their forests as forests, continuing to provide a full suite of ecosystem benefits to society. Through strong partnerships between NRCS, Forest Service, state forestry agencies and other partners, the share of EQIP obligations going to forestry practices has increased from 4.3% to 7.3% over the past decade, meaning more forest landowners have been able to access assistance to help keep more forest acres in conservation. Commensurate with this increase in financial assistance, more funding for technical service provision through states and other providers is needed to keep pace. NASF appreciates the Subcommittee's ongoing support of EQIP, especially its role in forestry and wildlife habitat conservation.

Conclusion

Thank you for the opportunity to appear before the Subcommittee today and provide testimony on behalf of NASF. We appreciate the ongoing work of this Subcommittee to provide Federal and state forest managers, as well as private landowners, with tools that increase the pace and scale of science based, sustainable active forest management, cross boundary work, and rapid and effective response to insects, disease and wildland fire.

We look forward to working with the Subcommittee, our partners with us here today and our Federal partners, including the USDA Forest Service and NRCS. Our common goal is the same: to support the health of America's trees and forests and

the rural and urban communities which rely on them. We look forward to working with you to provide the collective insights of the nation's State Foresters in developing the 2023 Farm Bill.

The CHAIR. Thank you very much.

The chair now recognizes Ms. Humphries. Please begin when you are ready. You have 5 minutes.

STATEMENT OF REBECCA A. HUMPHRIES, CO-CHIEF EXECUTIVE OFFICER, NATIONAL WILD TURKEY FEDERATION, EDGEFIELD, SC

Ms. HUMPHRIES. Thank you, Chair Spanberger, Ranking Member LaMalfa, and Members of this Subcommittee. It is my pleasure to be with you here today and an honor to talk about farm bill. I am Becky Humphries. I am co-CEO of the National Wild Turkey Federation. That *co* title denotes the fact that I will be moving towards retirement next year, and the new leadership with NWTF will be moving into their roles.

Twenty twenty-three will also be our 50th anniversary year, and we are very proud of the great work we have done at the National Wild Turkey Federation to not only conserve the wild turkey and also preserve our hunting heritage but tremendous conservation work. Since 1985, we have conserved over 20 million acres of habitat.

Today, I would like to just focus on a couple of our partnerships and what we see as additional opportunities for refinement in the next farm bill. The first I would like to highlight, we have had a 40 year partnership with the U.S. Forest Service. This partnership was built with us making tracks as we call it, but it is about active management and helping the Forest Service do active management through stewardship contracting and beyond. We have done the first stewardship contract and over 100 of them since all across this nation. To put it in perspective, in 2019, we were number four nationally of Federal commercial timber purchasers of timber volume sold off the National Forest System, huge. We are usually one of the top ten. And we don't have a mill, we don't make furniture. It is all stewardship. It goes right back into the forest to make those forests more sustainable, to be better managed, and to make sure we have clean water and native species.

Two things that we would like to see. Number one is we would like to extend stewardship authority for all Federal lands. As we talked about earlier in this hearing, not all fires start on Federal lands, but Federal lands, National Parks, refuges, and Army Corps of Engineers lands would open up an additional 180 million acres of land to potential stewardship work, and they are badly needed.

Second, we would like to see 20 year stewardship contracts on the national scale. We desperately need stability in our rural communities and for private investment for future forest management work. And 20 year agreements would put more of our work in long-term perspective rather than redoing agreements that, quite frankly, administrative overhead takes up time and energy.

The other partnership I would like to highlight is our National Forestry Initiative. This is a partnership that we have with USDA's Natural Resources Conservation Service. Through this partnership, we have positions in 24 states to do technical assist-

ance for on-the-ground private forest owners. It is paramount to getting good forest management on the ground. And as my colleague Rita Hite mentioned earlier, we have just a small portion of those forest owners that are seeking that technical assistance, and we need to do more.

And in this next farm bill we would like to see prescribed fire highlighted as a tool. Many times, that is the most cost-effective means of doing active management and ongoing management on the forest but it takes technical assistance and it takes equipment.

The third thing I would like to highlight is a concern, and it goes beyond the farm bill, but quite frankly, we have tried to address it within large categorical exclusions in past farm bills. We are seeing significant pushback in terms of legal challenges when we are trying to go through forest management plans. And what is happening is this expansion of legal challenges is requiring us to go back into forest management plans and update those with every new occurrence of threatened endangered species. That work should really be done at the project level. That is the area, the time when you are doing the actual planning, and the historical review as well as threatened endangered species. And so we would like to see approved forest plans not be ongoing Federal actions but rather have that review at a lower level.

We look forward to working together with this Subcommittee in the days ahead to move forward on our next farm bill. Many great strides have been made, and with some refinement, we can make them even better in the days ahead. Thank you.

[The prepared statement of Ms. Humphries follows:]

PREPARED STATEMENT OF REBECCA A. HUMPHRIES, CO-CHIEF EXECUTIVE OFFICER,
NATIONAL WILD TURKEY FEDERATION, EDGEFIELD, SC

July 13, 2022

Hon. ABIGAIL DAVIS SPANBERGER,
Chair,
Subcommittee on Conservation and Forestry,
House Committee on Agriculture,
Washington, D.C.;

Hon. DOUG LAMALFA,
Ranking Minority Member,
Subcommittee on Conservation and Forestry,
House Committee on Agriculture,
Washington, D.C.

[Chair] Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee on Conservation and Forestry, it is my honor to be here today to provide testimony on the important farm bill programs that do so much for natural resources conservation on our nation's private and public lands.

I am Becky Humphries, CEO of the National Wild Turkey Federation, a not-for-profit organization dedicated to the conservation of the wild turkey and the preservation of our hunting heritage. Next year, we will be celebrating our 50th Anniversary, and I'm very proud to say that through our work with farm bill conservation and forestry programs and partnerships with state fish and wildlife agencies, Federal land management agencies, and private landowners, we have helped to conserve or enhance more than 20 million acres since we started collecting those data in 1985. Each year, we help to conserve or enhance hundreds of thousands of acres for the benefit of the wild turkey, its habitat, and all of the other wildlife and plant species that benefit from well managed forestlands, grasslands, and streamside habitat.

The National Wild Turkey Federation's mission is as crucial today as it was when the organization was founded in 1973. Sadly, we're losing 6,000 acres of habitat every day. What we do on the land in the coming decades will be instrumental in strengthening climate and wildfire resilience in our nation's forests and other upland ecosystems, ensuring clean water for our communities, providing access for out-

door enthusiasts, including hunters, while enhancing habitat for wild turkeys and countless other species.

Hunters are essential to the funding of conservation, but now we're at the point where less than ten percent of the American population hunts, so the funding source is going away. This Committee's work and the significant Conservation and Forestry Title efforts of the farm bill are helping the NWTf to continue to apply conservation to working lands. The NWTf is leading a collaborative effort to solve the problem through our Save the Habitat. Save the Hunt. initiative, our America's Big Six of Wildlife Conservation work on over 80 vital watersheds and 738 million acres throughout the country, our Waterways for Wildlife initiative in the drought-prone Great Plains and American West, and the contributions of our dynamic and passionate volunteer base in 49 states. We spend our volunteers' money and taxpayers' money wisely by leveraging each dollar at least 3:1 but often at much higher levels. As an example, this year's Waterways for Wildlife Initiative projects leveraged NWTf funding at a rate of 19:1 to conserve 77 critical stream miles in eight states. **For every dollar raised by the NWTf, 90¢ goes to mission delivery.**

Since 1985, NWTf volunteers and partners raised and spent more than \$488 million toward our mission. We recognize that accomplishing conservation delivery at a scale necessary to keep food on our tables, our water clean, our forests and grasslands healthy, and vibrant rural communities can only occur with public, private, and nonprofit partners working together across land-ownership boundaries with a common, landscape-scale vision for success.

Private land holdings make up more than 60% of the approximately 2.3 billion acres of land mass in the United States. In the Eastern United States, private lands far exceed public lands and, therefore, are crucial to the success of landscape-scale conservation objectives. These objectives need to include Federal, state, and local work to ensure healthy water, wildlife, and the places where wildlife and people live and recreate, including, forests, grasslands, agricultural lands, and water courses. In the West, the reverse is true, with public landholdings making up 50% or more of the land in many states. Delivering conservation on private lands—in partnership with private landowners—is fundamental to the success of landscape-scale, cross-boundary habitat, forestry, and climate-driven conservation efforts, including the USDA's recently announced 10 Year Wildfire Crisis Strategy.

The farm bill brings the private landowner to the table. This includes generational family farmers and forest owners, Non-Governmental Organizations (NGOs), commercial operations, and American families. Farm bill programs provide the structure by which these conservation objectives are met by providing private landowners incentives for voluntary land stewardship. Additionally, USDA's delivery of technical assistance to private landowners to implement conservation programs on the landscape is crucial.

The NWTf is an invested participant in, and implementer of, a number of farm bill programs. These programs include the Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), and Regional Conservation Partnership Program (RCPP). NWTf also partners with the USDA's Natural Resources Conservation Service (NRCS), through shared positions, to provide technical assistance at the NRCS State Office level. And through a national partnership, we assist with workforce capacity in NRCS offices across the country.

The NWTf and NRCS are working together to help improve forest ecosystem health and resiliency on private lands and manage the forestry-related workload derived from the farm bill. As part of the National Forestry Initiative agreement, the NWTf is positioned to help improve forest health and climate resilience on an estimated 350,000 acres of private land throughout the country by providing experienced forestry professionals to bolster NRCS staff in 24 states over a 5 year period. To date, NFI has affected over 280,000 acres. Through our work, we see first-hand both the successes of these programs and needed improvements. Today, we offer our insights to improve this influential legislation.

The NWTf strongly supports Title II—Conservation and Title VIII—Forestry programs, as specified in the Agriculture Improvement Act of 2018 (Public Law 115–334) and would like to see reauthorization of these programs to achieve desired landscape-level objectives. We encourage this Subcommittee and Congress as a whole to consider these specific farm bill recommendations for improvement:

- **Actively promote prescribed burning as a valuable habitat and forest management tool.** Prescribed burning is not the only tool in the toolbox, but when applicable, it is often the most efficient and cost-effective technique for reducing hazardous fuel loads, removing unwanted vegetation, and promoting beneficial wildlife habitat in the forest understory. Low intensity, slow moving prescribed burns conserve our grasslands and forests by reducing fuel loads and

removing ladder fuels. They greatly reducing the overall risk of large-scale, costly, and catastrophic wildfires, both in terms of suppression, recovery and restoration of the impacted landscapes. Prescribed fire is also the tool of choice for the routine maintenance of previously treated landscapes. The visual from the *Wall Street Journal* that is attached to this testimony shows the geographic areas with the greatest wildfire threat. It should also be labeled as the areas with the least prescribed fire management. The upcoming farm bill is a perfect opportunity to promote these benefits as well as reduce barriers to implementing prescribed burning on the landscape. Barriers include securing and maintaining the social license, or acceptance from the public, by increasing the comfort level of surrounding landowners and local permitting officials, properly training landowners in the application of fire and smoke management, and allaying fears of liability if a fire jumps a line and causes unintended property damage. In addition, cost and availability of prescribed burning equipment necessary to complete safe, controlled burns is sometimes a barrier, especially in underserved communities.

- **Actively promote technical assistance programs and training opportunities for private landowners and partners such as the NWTF.** Attaining landscape-level conservation objectives requires active engagement across the boundaries of public and private forestlands. Non-industrial landholders are more likely to participate if they know technical assistance and training opportunities are available. We have found that where affiliated partner staff from NGOs, such as NWTF, supplement NRCS local staff, landowner participation tends to increase as a result of additional technical assistance capacity. History has taught us that well-managed forests start with informed, committed forest owners. Technical assistance programs not only help to educate landowners they also create expectations with timelines for management activities. Management is not a one-and-done proposition, but rather a continued commitment, which is more likely with consistent and easily accessible technical assistance and training.
- **Reauthorize the Conservation Reserve Program (CRP) and maintain CRP acreage at current authorized levels, including CRP forestry acreage.** CRP protects highly erodible and marginal agricultural lands from being put back into production. Retaining current mid-contract management requirements and ensuring compliance maximize ecosystem benefits of CRP acreage. And as carbon credits and ecosystem service assets become more prevalent, it is of growing importance to provide clarification on the eligibility of benefits for the CRP program.
- **Reauthorize the Environmental Quality Incentives Program (EQIP) and refocus a portion of the funding to allow more participation in this highly demanded but severely under-funded program, including CRP.** This action would also help maintain existing cover, whether grassland or forestland, on lands with expiring CRP contracts that are transitioning to working lands. It would support infrastructure to encourage grazing, including fencing and water developments. We encourage Congress to maintain the current allocation caps for wildlife habitat activities and require the non-expended apportionment be redistributed to areas where funding does not meet current demand. This would ensure wildlife habitat practices, including forestry practices, remain the focus of those funds.
- **Reauthorize and enhance the Voluntary Public Access and Habitat Incentive Program (VPA-HIP) and allow landowners enrolled in VPA-HIP to participate in other cost-share programs, including USDA farm bill conservation programs.**
- **The Regional Conservation Partnership Program (RCP) has been an extremely beneficial conservation tool; however, administration of this program is difficult.** Moving forward, the NWTF recommends the program be reauthorized, but with the ability to recover all costs—direct and indirect, including outreach activities—associated with the implementation of RCP projects and with the addition of a more streamlined administration process. Mandated recordkeeping and other accounting processes for the continued collection and cataloging of metrics are onerous to the administering partner, and these processes should be consistent with other Title II programs.

During our 40 year partnership with the USDA Forest Service, the NWTF has become the single largest organization involved in Stewardship Agreements across the agency. The Stewardship Authority under which we work was permanently authorized in the 2014 Farm Bill and is the largest vehicle through which the NWTF

delivers its mission on the ground. Work accomplished as a result of the agreements includes: ecosystem restoration/rehabilitation; sustainable forest management; watershed enhancement; wildlife benefits, such as Threatened and Endangered species habitat improvement; wildland urban interface (WUI) protection; fuels reduction; and recreation.

Through our critical partnership with the Forest Service, the NWTF has approximately 50 stewardship agreements ongoing across the National Forests and Grasslands in every Forest Service Region of the country, with more than 100 completed to date. To put this partnership into perspective, in 2019, the NWTF was ranked No. four nationally on the list of Federal, commercial timber purchasers by timber volume sold from National Forest System lands, and we regularly rank in the top ten. The resulting sales of this timber go directly back into these lands for the betterment of habitat and wildlife, water quality, climate and fire resilience, and recreational access. With this vast history of successful implementation of the Stewardship Authority, the NWTF makes these recommendations:

- **Extend permanent Stewardship Authority to all Federal land-holding departments and agencies.** The two agencies with permanent stewardship authority are the Forest Service and the Bureau of Land Management. Granting authority to the National Parks Service, the Fish and Wildlife Service, the Department of Defense including the U.S. Army Corps of Engineers and all other Federal land-holding agencies gives these agencies greater flexibility to better address climate, wildfire, wildlife, and recreational needs. Granting stewardship authority to these agencies could benefit more than an additional 180 million acres of federally-owned lands. The NWTF has MOUs with the Department of Defense through the U.S. Army Corps of Engineers and military installations in a number of states—Fort Polk, Fort Riley and Letterkenny Army Depot, among others—but stewardship would expand those opportunities to treat critical acreage and infrastructure.
- **Authorize long-term, 20 year Stewardship contracts at a national scale.** Forests are not annual crops, and they require longer-term maintenance options to achieve a resilient, healthy condition. Twenty-year contracts provide a number of benefits. It would allow for extended periods of uninterrupted forest treatments that provide sustainable assurances of timber volume for contractors, partners, and agency staff. It also would reduce the need and time requirements for re-application and review processes and the ramp-up/ramp-down periods associated with these interruptions. Just as importantly, 20 year contracts will benefit rural economies, including those currently underserved, through more stable employment opportunities and confidence for small business owners to invest in long-term infrastructure, such as forestry equipment, mills, and staff. This stability in our forest management infrastructure is greatly needed and will be bolstered through longer contract periods.

None of the impactful conservation work we have accomplished together with the U.S. Forest Service, the NRCS and other partners could occur without the authorities and incentive programs established in the farm bill. The Conservation and Forestry Titles are crucial to the NWTF's mission delivery. This is why we actively engage in farm bill stakeholder coalitions, like the Forest in the Farm Bill Coalition, members of which you are hearing from today. While coordination with partners and other stakeholders is still underway, it is important for us to provide these high-level recommendations on behalf of our 200,000 members.

Before I close, I would like to express a final but significant concern. The NWTF is fully supportive of the Endangered Species Act and the National Environmental Policy Act and the great protections they afford Threatened and Endangered Species and our vulnerable natural resources. There has been a long, but growing trend, however, by certain groups to use litigation as a way to halt critical forestland and grassland management work. While we recognize the importance of the individual's right to challenge government actions through the legal process, abuse of the system is tying up agency and partner resources and time that could be better used updating outdated forest plans and working to ensure our National Forests and grasslands are healthy and resilient to climate change, fire, and disease.

A number of recent examples exist where ESA and NEPA have been used to stall work that is long overdue and vital to the health and security of National Forests and the communities surrounding them. Court actions initiating redundant, time consuming, and expensive consultation requirements come at the tax payers' and environment's expense, and are often counter to the actual management needs on the ground.

Congress should address vulnerabilities in the Equal Access to Justice Act that has long been the source of public dollars used to fund court challenges by groups

opposed to Federal land management, even when the management activities are deemed scientifically appropriate and for the greater good. Additionally, ESA challenges shouldn't halt entire forest plans but be addressed at the local, project level, where impacted species and habitats are relevant. One proposed fix for this would be to clarify that cooperatively developed, reviewed, and approved forest plans are not ongoing Federal actions, while leaving the individual project plans open for evaluation and update as new information becomes available.

We urge Congress to find a balance between what is already supported in Federal law and beneficial for the landscape against the right of individuals and groups to recoup their legal challenges against government action, so that the positive impacts and authorities granted by Congress can be realized.

In closing, the National Wild Turkey Federation is committed to be a partner to this Subcommittee and other committees as Congress works to develop the next farm bill. We stand ready to assist by hosting field days and participating in dialog on this critical legislation. America needs a strong farm bill for the future of our nation's food, water, and wildlife.

Thank you for your tremendous work and support, and we look forward to working with you in the months ahead.

Potential for Significant Wildfires Is Above Normal for Growing Share of U.S.

Widespread drought is fueling an early rampup of wildfire season, with more than half of the U.S. wildland firefighting resources already committed.

Potential for significant wild land fires

July 2021



Note: Outlook issued July 1. [Forecast areas are approximate.]

Source: Predictive Services[, National Interagency Fire Center].

Image Source: *The Wall Street Journal* [<https://www.wsj.com/articles/potential-for-significant-wildfires-is-above-normal-for-a-growing-share-of-the-u-s-11625262957>].

The CHAIR. Thank you very much for your testimony.

And, Ms. Palmer, the chair now recognizes you for 5 minutes.

STATEMENT OF SALLY R. PALMER, CENTRAL APPALACHIAN EXTERNAL AFFAIRS ADVISOR, THE NATURE CONSERVANCY, ARLINGTON, VA

Ms. PALMER. Thank you. Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, thank you for the op-

portunity to submit testimony on forests in the farm bill. My name is Sally Rollins Palmer, and I am here representing The Nature Conservancy.

For over 70 years, we have worked to protect ecologically important lands and waters for people and nature here in the United States and around the world. It is a privilege to follow Chief Randy Moore of the Forest Service and be joined by leaders in forestry with whom we partner in the Forests in the Farm Bill Coalition.

I am a native of Appalachian foothills in Tennessee. Growing up in this beautiful region gave me an appreciation for nature and all the different peoples who have stewarded these places as their home for centuries. Professionally, I have worked with TNC for over 2 decades, first as a field ecologist and in later years on natural resource policy efforts. I currently serve as the external affairs advisor for our Central Appalachians Program. I have experience working with state and Federal agency partners to implement many programs authorized by the farm bill. While my testimony today will draw on those experiences, our written testimony represents our broad interests and the work of my colleagues on forests in the U.S. and globally.

The need for more collaboration and financial investment to halt biodiversity loss and address climate change has never been greater. The farm bill is a critical part of the solution by providing the authorities and funding to ensure improved stewardship on private working forests; address ecologically sound forest management needs in our public forests; and combat challenges, including climate change, insects and diseases, drought, and catastrophic wildfires.

I would like to share with you examples of how farm bill programs are helping improve our forest for the future in the Appalachians, emphasizing the importance of collaboration and planning at the local and landscape scales. This work is driven by my colleagues in the field, along with partners at the Federal, state, and local levels. For example, the Forest Legacy Program is investing in some of the most biodiverse and climate-resilient forests in North America, including a recent example in Georgia. Located in the southern end of the Appalachians, the Dugdown Corridor spans 100,000 acres and 50 miles between the Talladega National Forest in Alabama and the Sheffield/Paulding wildlife management areas. The State of Georgia and many partners have a goal to conserve and restore forests and increase the amount of publicly accessible recreation land in northwest Georgia.

The Nature Conservancy also has a long history of partnering with the Forest Service working to implement the Collaborative Forest Landscape Restoration Program. In the southern region in Pisgah National Forest in North Carolina, TNC and partners has successfully implemented the Grandfather Restoration Initiative, a long-term effort that has increased prescribed burning and other management practices to more than 40,000 acres. We also collaborate extensively with the Forest Service to implement prescribed fire programs across many fire-adapted forest systems in the Appalachians and in the longleaf pine ecosystem, improving forest health and reducing the risk of wildfires.

In Maryland and West Virginia, TNC has partnered with State Forestry and the Monongahela National Forest on the Landscape Scale Restoration Program. This project involved ten counties and invested in the science needed to establish shared restoration goals. It funded cost-effective approaches to deploying prescribed fire crews in the field, and tested approaches to controlling invasive species on public and private forest lands.

In addition, statewide forest resource assessments and strategies are vitally important for greater collaboration between Federal, state, and other entities. These plans also enable the type of watershed-scale prioritization and management implementation that is becoming even more important, given the drought and extreme rainfall swings our forests are now facing.

The Joint Chiefs Program also is a significant vehicle for delivering both forest and freshwater restoration efforts in the Appalachian region. TNC is currently a main collaborator on Joint Chiefs projects in Virginia and Tennessee.

To support region-wide management needs, I also note that growing markets for low-value forest products is important in Appalachia. TNC generally supports ecologically sound management for forest products and advocates for such strategies to be designed to restore forests to a more ecologically sound condition.

In conclusion, I emphasize TNC's guiding objectives for investing in forests within the farm bill provided in our written testimony. We also hope the next farm bill can provide maximum flexibility and access to forest programs, particularly those funded by the bipartisan infrastructure law. Some have high match requirements that create barriers for financially strapped partners and local communities.

We are grateful to this Committee for its longstanding commitment to address the needs of America's forests and to help Congress advance a global zero deforestation policy agenda. Thank you.

[The prepared statement of Ms. Palmer follows:]

PREPARED STATEMENT OF SALLY R. PALMER, CENTRAL APPALACHIAN EXTERNAL AFFAIRS ADVISOR, THE NATURE CONSERVANCY, ARLINGTON, VA

[Chair] Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, thank you for the opportunity to submit testimony on forests in the farm bill. The Nature Conservancy (TNC) is a nonprofit conservation organization working around the world to protect ecologically important lands and waters for people and nature. Our mission is to conserve the lands and waters upon which all life depends. We are grateful to this Committee for its longstanding commitment and investment in the future of America's lands, water and wildlife and addressing the many timely challenges that face our forests.

The Nature Conservancy has engaged in the reauthorization of the farm bill and implementation of many of its programs since the Conservation Title was created in the 1985 Farm Bill. Since seventy percent of the land in the lower 48 states is privately owned, the farm bill presents the greatest opportunity to impact conservation on private lands. The National Forest System covers 193 million acres of forests and grasslands, while more than half of the forestland in the United States (475 million acres) is in private ownership. TNC continues to engage in implementation of farm bill programs that benefit both private and public forests. While we enumerate our experience with programs largely enshrined in the Forestry Title (Title VIII), our interests span the conservation of forests broadly impacted and incentivized by the farm bill, across other titles, to ensure continued improvement in stewardship on private non-industrial forests, address forest management needs in our public forests, and combat challenges including climate change, insects and diseases, drought, and catastrophic wildfires that plague both forests and commu-

nities all over the country. Our hope is that the next farm bill builds on the successes of its forestry programs and delivers strong, just, equitable and inclusive outcomes while advancing conservation and community interests.

My name is Sally Rollins Palmer, and I am a native of the Appalachian foothills in Tennessee. Growing up in this beautiful region gave me an appreciation for nature and all the different people who have tended to these places as their home for centuries. Professionally, I have worked for The Nature Conservancy for over 2 decades, first as an ecologist—which is my academic training—and in later years on a variety of conservation planning and natural resource policy efforts. I currently serve as the External Affairs Advisor for our Central Appalachians program. Over my career, I have always been drawn to focus on how we can all work together—sharing our different expertise and experiences—to conserve our natural resources and promote our healthy co-existence with nature. My testimony will convey the perspectives of my colleagues in the Appalachian Region and across the country who share this same devotion.

Our nation's forests provide much of the clean air and water, wildlife habitat, forest products, and recreational opportunities that every American enjoys. They also produce over \$200 billion in products annually, aid in rural economies and provide almost one million direct jobs. Unfortunately, forests are facing a dire situation as wildfires continue to grow larger and hotter, insect and disease infestations spread, and forest health deteriorates. There is an urgent need to increase the pace and scale of ecologically-beneficial forest management on National Forests and provide incentives for state and private land managers to reduce the risk of catastrophic wildfire and improve forest health.

Prior to the COVID-19 pandemic, several global entities—public and private—had turned their attention to steep declines in nature that risk destabilizing the very systems we depend on for our survival. This trend is expected to continue. According to the most recent findings of the Inter-governmental Panel on Biodiversity and Ecosystem Services (IPBES), $\frac{3}{4}$ of the world's land and $\frac{2}{3}$ of its marine environment have been significantly altered by human actions. We have lost half of the world's forests, half of coral reefs, 70 percent of wetlands and dammed $\frac{2}{3}$ of the world's main rivers. We are witnessing this ecological crisis right here at home. It threatens the stability of the entire planet and requires bold and urgent action.

The need for more investment to halt biodiversity loss and address climate change has never been greater. The farm bill is a critical part of the solution, being the single largest driver of conservation investment in the United States. The farm bill provides the opportunity to continue to support our national, state and private forests by improving existing and developing new policies that would bring them to a healthier state. We stand ready to aid you in prioritizing key investments impacting conservation and forestry programs as you consider the 2023 Farm Bill.

At the outset, we offer The Nature Conservancy's guiding objectives for prioritizing forests in the next farm bill that we hope will align with your interests:

- Sustain and grow farm bill programs for private forests and dependent communities and promote watershed-level conservation across relevant Federal agencies.
- Promote more ecologically beneficial forest management policies throughout the farm bill.
- Advance more climate resilience incentives and investments for forests.
- Protect the integrity of bedrock environmental laws that help govern the management of National Forests.
- Ensure just and equitable outcomes in the farm bill also benefit minority foresters, forest landowners and workers, and enable Tribal management and/or co-management of forests alongside Federal agencies.

In addition, we hope the next farm bill can prioritize providing maximum flexibility and access to forestry programs, particularly those also funded by the Bipartisan Infrastructure Law (BIL) with high match requirements, that create barriers for financially strapped partners and local communities needed, to make program implementation successful. The following are key forestry programs authorized in the 2014 and 2018 Farm Bill where TNC has either had direct engagement as an implementing partner or is keen to engage should ecologically meaningful modifications to programs occur in the next farm bill.

Forest Legacy Program

The Forest Legacy Program (FLP) is an important conservation program that has fostered Federal-state partnerships to facilitate protecting more privately owned forest land. By providing economic incentives to landowners to keep their forests as

forests, FLP is encouraging sustainable forest management and supporting strong markets for forest products. The program is a critical tool that invests in natural infrastructure by conserving forests that sequester carbon dioxide and protecting drinking water supplies that reduce the need for costly, human-made filtration and treatment systems. According to the U.S. Forest Service, 180 million people in over 68,000 communities rely on forested lands to capture and filter their drinking water and forested lands sequester 14 percent of annual U.S. carbon emissions.

The Nature Conservancy and our partners have been able to steward more private land conservation efforts in several states thanks to FLP-enabled conservation easements or land purchases. For example, located at the southern end of the Appalachians, the Dugdown Corridor spans 100,000 acres and 50 miles between the Talladega National Forest in Alabama and the Sheffield-Paulding Wildlife Management Areas in Georgia—a region which contains some of the most biodiverse and climate resilient forests in North America, including the last remaining vestiges of the globally rare montane longleaf pine ecosystem. The Nature Conservancy and the state of Georgia’s goal here is to acquire two tracts as a part of a larger initiative to protect and restore the Dugdown Corridor and increase the amount of publicly accessible recreation land in Northwest Georgia. Deliverables of this project include protection of 2,351 acres benefitting multiple threatened and endangered species including the federally endangered gray and Indiana bats and federally threatened fine-lined pocketbook mussel; creation of the first and only public recreational land in Haralson County; and expanded opportunities to restore the montane longleaf ecosystem.

The 2018 Farm Bill authorized \$35 million annually for the FLP and also eliminated its permanent authority to receive annual appropriations. We respectfully ask the Congress to consider increasing the authorization level for FLP in the 2023 Farm Bill while also providing maximum flexibility on the program’s non-Federal cost-share to enable more conservation outcomes and increasingly equitable access to utilize the program.

Collaborative Forests Landscape Restoration Program

Congress created the Collaborative Forest Landscape Restoration Program (CFLRP) in 2009 to enhance forest and watershed health, reduce risk from catastrophic megafires, and benefit rural economies through collaborative, science-based approaches to forest management. In its first 10 years, the CFLRP projects generated nearly \$2 billion in local labor income, supported an average of 5,440 jobs annually, and engaged over 400 organizations in local collaboratives. More importantly, it has attracted and generated over \$450 million in leveraged funding and in-kind contributions.

The 2018 Farm Bill authorized \$80 million for CFLRP. This has been critical to allow for the program to strategically advance the Forest Service’s 10 year Wildfire Crisis Strategy and inspire infusion of new investments such as those granted in the Bipartisan Infrastructure Law, which is now enabling an additional twelve projects in eight states in Fiscal Year 2022 to receive CFLRP funding.

The Nature Conservancy has a long history of partnering with the Forest Service and working in collaboratives to implement CFLRP. Across the West, CFLRP projects are helping to build wildfire resilience and support rural America. From Washington State to Arizona, and from California to Colorado, projects have advanced forest and watershed health, and making important contributions to reduce risks from uncharacteristic wildfire. In Oregon alone, five CFLRP projects—on Deschutes National Forest, in Lakeview and the Southern Blues, and two recent awards in the Northern Blues and Rogue Basin, have allowed TNC to engage deeply in high-priority landscapes to complement the down payment on long-term landscape resilience and wildfire risk reduction. Similarly, in the Longleaf Pine ecosystem, TNC has been an implementing partner on the Osceola National Forest, a CFLRP project funded in 2010. After 3 years of restoration work, a study was commissioned to examine the economic impact of the CFLRP in the landscape. Within the Osceola area, the total economic output for all 3 years was over \$3 million including multiplier effects. Program expenditures also generated \$1.8 million in salaries and wages over the course of the 3 years within the same region of Florida and contributed \$459,000 in local, state and Federal tax revenues. Such a study could be a model for future project evaluation and development of economic metrics. Similarly, also in Region 8, in Pisgah National Forest, TNC and partners have successfully completed a 10 year effort in the Grandfather Restoration Project by increasing prescribed burning and other management practices to more than 40,000 acres of the Grandfather Ranger District.

As the Committee considers the next farm bill, we respectfully request CFLRP to remain a priority. We seek a longer-term reauthorization as well as expanded au-

thorities of the program to address and account for climate resilience, and further strategic wildfire resilience investments.

Water Source Protection Program

Congress took an important step by authorizing a new investment through the Water Source Protection Program (WSPP) in the 2018 Farm Bill at \$10 million annually to encourage partnerships between agricultural producers, businesses, cities, and the Forest Service. We recognize and appreciate that if fully manifested as intended, these partnerships would improve forest health and benefit downstream communities, often bringing in significant new investments from non-Federal partners. Despite widespread interest in WSPP across the country, it has not received dedicated funding. As growing populations and climate change place additional stress on our forests and watersheds, it is critical to invest in programs that support local, collaborative solutions to these challenges.

The Colorado River Basin impacts 36 million people in the West who rely on the Colorado River for water, food, recreation and energy, but the current 22 year drought in the Colorado River Basin points to a future of increasing challenges to forest and watershed resilience and uncertain water supplies. Well-managed forests serve as natural reservoirs, enhancing drought resilience and water-related outdoor recreation and sustaining river base flows in the summer when crops, boaters, and fish need water. Given TNC's longstanding commitment to restore and conserve the Colorado River, we are eager to utilize the authorities of WSPP and see great promise to address watershed-level conservation challenges.

In the next farm bill, we respectfully request a closer examination of this program and urge you to consider the following modifications:

- Require restoration plans and activities to be based on ecological principles and the best available science and designed to enhance resilience to climate change.
- Extend program to cover adjacent and nearby non-Federal lands to support an "all lands" approach to restoration.
- Establish criteria that the Forest Service should use in prioritizing projects for funding, to include (i) quantifiable benefits to water supply and infrastructure, (ii) demonstrated capacity and success of the partners in designing and implementing ecological restoration projects, (iii) amount of proposed match, and (iv) other factors
- Reduce the required non-Federal match from 50% to 20%, commensurate with similar Forest Service programs, while using the percentage of match as a factor in selecting projects to provide an incentive for greater contributions.
- Increase authorized funding level to address watershed-level conservation challenges.
- Require the agency to submit an implementation plan within 180 days of enactment.

Landscape Scale Restoration Program

The Landscape Scale Restoration (LSR) program supports projects that align with the U.S. Forest Service's priorities to reduce the risk of uncharacteristically severe wildfires, maintain or improve forest and rangeland ecosystem resilience, improve fish and wildlife habitats, maintain or improve water quality and watershed function, and mitigate invasive species, insect infestation, and diseases.

The 2018 Farm Bill established a state and private forest landscape-scale restoration fund at \$20 million annually allowing for more projects to be eligible for funding. TNC has a long history of implementing the LSR program particularly in Forest Service Regions 8 and 9. Recently, LSR awarded funding to a 'Treesilience' project in northern St. Louis County, MO for work on private properties. This is a unique geography comprised of 24 municipalities, and one that is particularly hard hit by the emerald ash borer. This investment is providing much-needed resources to municipalities and homeowners for necessary removal and replacement of dead or dying trees that pose risks to homes and people, and is supporting planting of new trees in neighborhoods with the most need. In Maryland and West Virginia, spanning ten counties and in coordination with the Monongahela National Forest, the LSR program has enabled TNC and partners to conduct ecological departure analysis, innovative "on-demand" controlled fire and invasive species management. As the Committee considers the next farm bill, we respectfully request the annual investment in the program to be expanded, particularly to urban environments, while also providing maximum flexibility for the program's non-Federal cost-share to enable more conservation outcomes.

Other Key Considerations

Investing in Wildfire Resilience: Congress took a major step toward stabilizing the Forest Service and Department of the Interior budgets with the 2018 “fire fix,” for which we continue to be thankful. We continue to urge Congress to ensure the fire fix remains durable and comprehensive. An estimated 50 million acres are in critical need of wildfire resilience treatments across all forests due to the impacts of these challenges.

The Nature Conservancy has over 60 years of on-the-ground experience across the country, working with public and private partners to deliver prescribed fire programs as an ecologically based mechanism to reduce wildfire risk and improve forest health. Cross-boundary funding mechanisms such as the Hazardous Fuels Reduction projects authorized by the farm bill support these efforts. A TNC report¹ recommends an investment surge of \$5–\$6 billion per year over the next 10 years for the highest priority work of increasing wildfire resilience and providing communities with much-needed resources for infrastructure and adaptation.

The next farm bill can advance wildfire resilience through many specific actions, including:

- Directing the Secretary of Agriculture to coordinate with the Secretary of the Interior to encourage and expand the use of prescribed fire on land managed by the Forest Service or the Department of the Interior. Inclusion of the bipartisan proposal of the National Prescribed Fire Act can advance this objective.
- Directing the Secretary of Agriculture to establish a pilot program under which the Secretary may enter into a conservation finance agreement with a public or private person, including a for-profit or nonprofit organization, to plan, implement, and monitor a landscape-scale forest restoration project selected by the Secretary. A similar proposal has been incorporated into Sec. 104 of S. 2806 Wildfire Emergency Act.

Forest Management and Environmental Safeguards: Title VIII of the farm bill has shaped forest management policies to address some of the challenges that face large forest landscapes. We look forward to engaging in a dialogue on finding ways to increase the pace and scale of restoration and reducing risks posed by climate change, severe megafires, drought, insects and diseases, while also ensuring public processes and environmental protections are strengthened.

Importantly, as the Congress examines the necessary mix of incentives and investments for forest management, we seek to ensure agencies have sufficient resources and the flexibility to use available authorities and more efficient processes while maintaining environmental safeguards. These will be essential conditions for success, as will be collaboration among Federal and state government agencies, Tribes, Indigenous peoples, scientific experts and other relevant stakeholders. The Nature Conservancy has demonstrated that collaborative planning efforts can achieve efficiencies of scale for management implementation, such as the recent authorization of over 60,000 acres of ecologically-sound forest treatment across the South Zone of the Cherokee National Forest. Key actions in this respect would also need to include ensuring every Forest Service region has adequate resources and capacity dedicated to comply with processes enshrined in bedrock environmental laws such as the Endangered Species Act and the National Environmental Policy Act (NEPA), and access to a minimum of two NEPA strike teams for each Forest Service region.

Natural Climate Solutions: Large-scale global reforestation goals have been proposed to help mitigate climate change and provide other ecosystem services. To accelerate reforestation, the entire “pipeline” for tree planting (*i.e.*, from seed collection all the way to sapling monitoring) need to be scaled up, including seed collection and storage, tree improvement research, nursery production, outplanting, and post-planting treatment and monitoring. To illustrate the requirements for increasing reforestation capacity in the U.S., scientists at The Nature Conservancy and other experts have produced a new report² identifying 64 million acres of natural and agricultural lands, nearly half of the total reforestation opportunity. Accounting for different planting densities by region, it would require 30 billion trees to reforest these lands. This equates to 1.7 billion more tree seedlings produced each year for this land to be reforested by 2040.

To this end, we request Congress to consider supporting increased public- and private-sector capacity for seed collection and storage, tree improvement research, tree

¹https://www.nature.org/content/dam/tnc/nature/en/documents/WildfireResilienceFunding_TNC_6-30-21.pdf.

²<https://www.nature.org/en-us/newsroom/challenges-reforestation-pipeline/>.

nursery expansion, workforce development, and improvements in pre- and post-planting practices. We recommend the following priorities:

- Incentivize/guarantee low-interest or forgivable loans in addition to long-term contracts to expand nursery expansion.
- Support more reforestation friendly outcomes from programs such as Environmental Quality Incentives Program (EQIP) and Conservation Reserve Program (CRP).
- Reduce the barriers for rural landowners to participate in voluntary markets for forest carbon such as those proposed in provisions of S. 1107 Rural Forest Markets Act.
- Address the national shortage of seedlings needed for reforestation efforts such as those proposed in provisions of H.R. 2562 the Solving Our Shortages for Seedlings Act.
- Support funding for the Tree Assistance Program (TAP) and investing in more monitoring and research assistance.

As climate resilience is further strengthened in farm bill programs, we respectfully request the Congress to ensure that such actions also provide ecological benefits, as originally intended, and programs such as Healthy Forests Reserve Program (HFRP) which helps landowners restore, enhance and protect forestland resources on private lands through easements and financial assistance are expanded for their community benefits and incentivized for climate resilience.

Watershed Scale Restoration: Conservation programs and other policies in the farm bill are key drivers of water use and management decisions and, therefore, a primary source of solutions to our shared water challenges. The farm bill has the unique opportunity to enable forest restoration and fire protection efforts to improve the hydrologic function of headwater systems and strategically connect improvements with downstream flow and riparian restoration efforts.

One important mechanism for enabling watershed scale prioritization and implementation has been the Statewide Forest Resource Assessments and Strategies. These plans are important mechanisms for supporting state decision-making regarding forest management, and they promote collaborative stakeholder engagement in the process. In recent years, TNC has partnered with different states to assist with the scientific data and priorities identified by stakeholders in these strategies.

Based on our science expertise and field experiences, we request the Congress to consider innovative mechanisms to advance watershed scale restoration which strategically advance forest health efforts including the following recommendations:

- Enable farm bill programs such as the Regional Conservation Partnership Program (RCPP) and EQIP to advance forest restoration to benefit downstream flow and riparian restoration.
- Require strategic integration of Agricultural Conservation Easement Program (ACEP) and restoration programs such as Conservation Stewardship Program (CSP) and CRP, alongside EQIP and RCPP to prioritize funding to landowners that both maintain agricultural and/or forest production and increase drought resilience by implementing appropriate activities, projects, and use of innovative measurement technologies.
- Authorize funding for the Watershed Condition Framework (WCF) to provide a consistent, comparable, and credible process for improving the health of watersheds on National Forests and Grasslands.
- Alleviate match requirements and implementation barriers to programs in the Bipartisan Infrastructure Law (BIL) to further forest health and watershed restoration. Some examples of implementation barriers include BIL funding requiring its own agreements and a lack of clarity within the Forest Service regarding eligibility for BIL funding for waiver requests.

Community and Urban Forests: Given their ability to reduce the urban heat island effect and energy demand, retain stormwater, and absorb and store greenhouse gases while providing habitat for biodiversity, urban forests can help urban environments and their residents address the challenges of rising energy costs, water shortages and climate change.

The Nature Conservancy has deep experience in delivering urban forest conservation together with the Forest Service and partners in several parts of the country—from New York City to Orlando and beyond, we are advancing urban forest conservation by aiding with technical and science expertise and delivering nature-based solutions to ensure a resilient and equitable tree canopy where a majority of Americans live.

In the next farm bill, we respectfully request the Congress to consider ways to drive more support and investment for urban and community forests including:

- Permanently authorizing the National Urban Community Forestry Advisory Council.
- Establishing provisions for private homeowner assistance (technical and financial) for conservation actions taken to enhance tree canopy on private property, prioritizing mature tree maintenance activities and “underserved” urban communities.
- Investing in a green infrastructure tree planting and maintenance program for communities to improve air and water quality; reduce storm water flooding, water treatment costs, and consumer energy costs; and enhance property values, public safety, and quality of life.
- Expanding key farm bill programs such as the Landscape Scale Restoration to include urban environments.
- Amending the Cooperative Forestry Assistance Act and Healthy Forest Restoration Act to include urban landscapes.

Forest Products and Markets: The 2018 Farm Bill authorized a research, education and technical assistance program for expanding wood energy and wood products markets. The Nature Conservancy generally supports strategies to develop forest products and markets. Such strategies should be designed to restore forests to a more natural condition, correcting the harmful cumulative impacts of past fire suppression and ecologically harmful logging practices, and to enhance resilience to a changing climate.

In certain situations, ecological thinning can help to facilitate the responsible use of prescribed and managed fire as part of efforts to restore fire to its proper role in fire-adapted forest ecosystems. In these places, facilitating development of, and fostering local markets and utilization strategies for, new value-added products from low-value material (small diameter timber and woody biomass) removed from forests during restoration projects may be necessary. Programs like the Wood for Life partnership in the western U.S. (which delivers unmerchantable logs to Indigenous residents for firewood) offer another avenue to support such utilization.

As the Congress turns its attention to doing more for wood energy and the wood products markets, we respectfully request that all such efforts are conducted within proper environmental sideboards that ensure that the overall outcome is ecologically beneficial. Importantly, the lack of, or limitations within existing forest product markets should not serve to discourage the Forest Service from engaging in critical forest management activities to build resilience.

Addressing deforestation and curbing importation of illegally harvested commodities: The farm bill has made meaningful contributions to addressing the importation of illegally harvested timber. In 2008, thanks to the farm bill, the United States—the world’s largest consumer of forest products—became the first country to ban trafficking of products containing illegally sourced wood. The Lacey Act Amendments of 2008 were adopted with bipartisan support in Congress and have contributed to reduced imports of illegally sourced wood products by 32–44%. The amendments have demonstrated their potential for impact, yet significant delays in full implementation and sporadic enforcement continue to limit their effectiveness. Congressional oversight is vital to overcome these delays. We respectfully request the House Agriculture Committee to ensure that USDA implements the requirements of this law, phasing in enforcement of the import declaration requirement for key product categories including furniture, pulp, and paper by the end of this year.

Global forests and other important biomes—such as the tropical rain forests of the Amazon, Congo Basin, Southeast Asia and the Pacific, and Central America and the Cerrado savanna and Pantanal wetlands of Brazil—are critical for human well-being and livelihoods, biodiversity, and carbon sequestration. A comprehensive U.S. approach backed by programs, policies, funding, and diplomatic engagement is needed to ensure the long-term conservation of these ecosystems. This includes specific initiatives to eliminate commodity-driven deforestation, forest degradation, and habitat conversion; halt bad actors from engaging in illegal timber extraction and illegal deforestation; promote sustainable livelihoods and the rights of Indigenous peoples and local communities; and protect and restore forests and other natural landscapes.

The next farm bill provides opportunities to curb global deforestation by leveling the playing field for American ranchers, producers and other businesses competing in the global economy, and through specific bipartisan proposals that directly address commodity-driven deforestation.

As the Congress considers its next farm bill, we respectfully ask that bipartisan proposals such as the FOREST Act (Fostering Overseas Rule of Law and Environmentally Sound Trade Act) are incorporated. The FOREST Act would establish a new mechanism to remove illegal deforestation from agricultural commodity supply chains by creating a risk-based due diligence and reporting framework for key imported products; establish incentives for U.S. businesses and partner countries to reduce deforestation; and update financial crime statutes to apply to criminal enterprises engaged in illegal deforestation.

In conclusion, we appreciate your leadership in examining the status of forestry programs authorized by the farm bill and providing us with an opportunity to share recommendations to strengthen and scale up efforts to reduce challenges such as catastrophic megafires, pests and drought—all impacts exacerbated by climate change—in support of our forests, as well as the local and Indigenous communities and economies that rely on them to thrive. We support substantial reinvestments in programs that increase forest resilience, specifically those that support collaboratively developed, science-based, climate-informed and ecologically focused activities across all forests, and help Congress advance a zero-global deforestation policy agenda. Backed by significant investment, these policies would be an ambitious and important down payment to ensure the future of forests and the role they play in achieving U.S. farm and food policy goals. We look forward to working with you and your staff to advance these aspirations.

The CHAIR. Thank you very much, Ms. Palmer.

Mr. Schultz, please begin when you are ready. You have 5 minutes.

Mr. Schultz, you are muted.

STATEMENT OF TOM SCHULTZ, VICE PRESIDENT OF RESOURCES AND GOVERNMENT AFFAIRS, IDAHO FOREST GROUP; PRESIDENT, FEDERAL FOREST RESOURCE COALITION, COEUR D'ALENE, ID

Mr. SCHULTZ. Thanks. Chair Spanberger, Ranking Member LaMalfa, and Members of the Committee, I am Tom Schultz, and I am here today in my capacity as President of the Federal Forest Resource Coalition, a national nonprofit representing purchasers of Forest Service timber in 37 states. Our members employ over 390,000 people and provide payroll in excess of \$24 billion annually.

The most significant forest management reforms adopted in the last decade have been enacted through the 2014 and 2018 Farm Bills. I am here today to share my experiences with these programs and suggest improvements to address the forest health crisis afflicting our National Forests.

Among other things, the 2014 and 2018 Farm Bills expanded Good Neighbor Authority, made stewardship contracting permanent, created streamlined authorities for forest health and fuels reduction projects on National Forests. I want to focus on these authorities with recommendations on how to improve them.

First is Good Neighbor Authority, or GNA. It has become a crucial tool to improve forest health in the National Forests. Since 2014, the farm bill expanded it to all 50 states. The number of acres treated annually under this program has grown by more than 20-fold and is now averaging more than 60,000 acres per year. In Idaho alone, we have treated more than 8,200 acres of Forest Service lands using GNA authorities. The program is a true state-Federal-local partnership with the Forest Service and the NRCS working seamlessly with private landowners, State Foresters, industry, and others to implement projects ranging from forest thinning to commercial timber sales to the creation of fuel and firebreaks. By

leveraging the capacity of state forestry agencies, GNA allows us to practice what we call in Idaho *no-boundaries forestry*.

As of 2021, 20 timber sales have been awarded under the GNA program in Idaho treating the 8,200 acres I mentioned, and generating over 70 million board feet of timber. Additionally, over 60 restoration service contracts at a total value of \$3.5 million have been awarded to the private-sector. The Idaho GNA program is a true success story, having nearly quadrupled volume outputs in just 5 short years since it began. It is now roughly ten percent of the annual timber program sold from partnering National Forests.

The 2023 Farm Bill is an opportunity to make several key reforms, including allowing states, counties, and Tribes to use revenue generated by the GNA projects on non-Federal lands and to allow revenue from existing projects to be used for this work as well. By allowing new road construction under GNA, this program could retire older, poorly placed roads and replace them with better engineered roads to help reduce water quality impacts. Making Good Neighbor Authority permanent with these reforms will provide a powerful incentive to partners to continue investing in the program.

The 2014 Farm Bill also made stewardship contracting authority permanent. Stewardship contracting has been a vital authority line of the Forest Service to implement forest restoration and management projects and now accounts for about 25 percent of the overall Forest Service timber sale volume. In some regions that has grown to exceed 50 percent.

One thing we have learned is that the loss of forest products facilities makes forest management far more difficult and expensive. The Forest Service has struggled mightily for decades to attract new forest industries to Arizona, where millions of acres of fire-adapted pine forest urgently need thinning. Further loss of building infrastructure could put up to 35 million additional acres of National Forest at risk of the same fate. We urge you to amend the authority to make retention of existing forest products facilities one of the key objectives of the program, as well as allowing receipts from stewardship projects to ensure adequate reforestation to the KV Fund (Knutson-Vandenberg Trust Fund).

The 2014 and 2018 Farm Bills gave the Forest Service new authority to conduct insect and disease treatments and hazardous fuel production work on up to 3,000 acres of National Forest System lands at a time under section 602. These authorities have proven effective in reducing hazardous fuels. Section 602 projects have performed well, and they have encountered wildfires. In every case where the Forest Service has completed all the steps of the fuel reduction process, the treatments have reduced flame length, fire intensity, and rate of spread.

However, the scope of the program is too limited. The Committee should move to substantially increase the number of acres covered by section 602 categorical exclusions. This section does not open a single new acre of land for timber harvest and requires compliance with forest plans. It allows the Forest Service to quickly approve needed treatments after a brief review rather than engaging in lengthy or NEPA processes that can delay projects for as much as 5 years or more.

Our written testimony includes further recommendations for your consideration. FFRC has always appreciated the bipartisan, pragmatic approach to forest management that this Committee has demonstrated. With nearly half of the National Forest System off limits to management, we urge you to continue to build on the authorities you have already enacted to make sure that we can manage the rest of these critical lands sustainably. Thank you.

[The prepared statement of Mr. Schultz follows:]

PREPARED STATEMENT OF TOM SCHULTZ, VICE PRESIDENT OF RESOURCES AND GOVERNMENT AFFAIRS, IDAHO FOREST GROUP; PRESIDENT, FEDERAL FOREST RESOURCE COALITION, COEUR D'ALENE, ID

[Chair] Spanberger, Ranking Member LaMalfa, on behalf of the Federal Forest Resource Coalition, I appreciate the opportunity to testify before you today. My name is Tom Schultz and I am Vice President of Resources and Government Affairs at Idaho Forest Group (IFG), a family-owned business operating five sawmills in Idaho, as well as a new mill we are bringing online in rural Mississippi. I am here today as President of the Federal Forest Resource Coalition, which represents purchasers of Federal timber in 37 states, with over 650 member companies and affiliated associations, collectively representing over 390,000 employees.

By way of background, prior to joining IFG, I served in leadership roles for 2 decades at state land management agencies in both Montana and Idaho, roles I took on following a career in the U.S. Air Force. This diverse background has given me a unique perspective on the challenges facing the U.S. Forest Service.

FFRC is extremely grateful for the leadership this Subcommittee has shown on National Forest Management issues in the last several farm bills. Since 2014, the farm bill has advanced some of the most effective and important policy changes that have aided Forest Service efforts to begin reversing the forest health and wildfire crisis that is challenging the sustainability of our Federal Forests.

The 2014 and 2018 Farm Bills saw the expansion of Good Neighbor Authority, expansion of Designation by Description and Designation by Prescription, permanent reauthorization of Stewardship End-Results Contracting, and enactment of streamlined authorities to treat forest insects, disease, and reduce hazardous fuel loads on National Forests. The next bill, scheduled for 2023, provides an opportunity to build on these successes to scale up management to meet the significant challenges facing the health and sustainability of the National Forest System.

Good Neighbor Reform: The 2014 Farm Bill expanded Good Neighbor Authority (GNA) to all 50 states, following years of pilot authorities which allowed small scale work in several states. The 2018 Farm bill expanded the eligibility of GNA to counties and Tribes. The program has been a resounding success and we urge the Subcommittee to build upon it in the 2023 Farm Bill. Since expanding the authority in the 2014 Bill, the number of acres treated annually under this program has grown by more than twenty-fold and is averaging more than 60,000 acres each year for the last 4 years.

Since the 2014 Bill, three dozen states have begun work on over 130 GNA projects. In addition to improving forest health, GNA has helped increase wood supply to bring additional needed forest products to market. According to the Congressional Research Service, the amount of Forest Service timber sold under GNAs has increased from 14.4 million board feet in FY2016 to 182.6 million board feet in FY 2019. That's enough lumber to frame about 11,000 single family homes. As many Americans struggle with finding affordable housing, this program is helping meet market needs.

With states investing substantial sums of money to support implementation of Good Neighbor Authority (GNA) projects, including cross-boundary projects, treatment of revenue from GNA projects must reflect this reality. However, the 2018 Farm Bill limited the ability of states to utilize GNA project receipts on non-Federal lands—despite the clear direction that these projects be conducted to improve forest health on both Federal and Non-Federal lands. We note that this recommendation is consistent with those provided by the National Association of State Foresters.

Action Requested: Amend 16 U.S. Code § 2113b(2)(c) to allow states, counties, and Tribes to utilize revenues generated on non-Federal lands, pursuant to conditions specified in Good Neighbor Agreements, and direct the Forest Service to update existing Good Neighbor Master Agreements and Project Agreements to use revenue from existing projects for this work.

We also recommend that Congress consider amendments to the GNA authority to allow new road construction and reconstruction under GNA contracts on a limited basis. Restoration work on the National Forest System is not limited the need to reduce hazardous fuels; in many cases, older roads, placed without adequate consideration of water quality impacts, should be retired and replaced by better engineered, correctly placed roads that address water quality issues as well as roads that are just worn out and need reconstruction such as crushed aggregate and vegetation removal for safe and efficient use.

As you move to reauthorize these programs, we urge you to make all of the above changes and extend the authority for this program to the Bureau of Land Management (BLM) as well. The 2014 and 2018 Bills extended several forest management authorities to the BLM, and this Committee should build upon that precedent in the 2023 bill.

Stewardship Contracting Amendments: The 2014 Farm Bill made Stewardship Contracting authority permanent, responding to a request from then-Chief Tom Tidwell. Stewardship Contracting has been a vital authority allowing the Forest Service to move implement forest restoration and management projects. Stewardship Contracts now account for about 25 percent of overall Forest Service timber sale volume, and in some regions, this total has grown to exceed 50 percent.

As the use of this contracting tool has expanded, it has become clear that reforms are needed to ensure that the program doesn't result in unintended consequences, including inadequate resources for reforestation. Moreover, as the Forest Service struggles to expand its treatment of at-risk acres of National Forest System lands, it's become clear that retention of existing forest products infrastructure—loggers, trucking capacity, and wood products facilities—is critical to achieving the paradigm shift the Forest Service has called for.

In the last 3 years, we've seen the closure of five sawmills located near millions of acres of fire prone National Forests, including the IFG mill at St. Regis, Montana. All these closures were precipitated—at least in part—due to insufficient wood supply from nearby National Forests to keep these mills running. Loss of milling infrastructure is a major factor behind what the Forest Service calls its “low-value material” problem.

Our initial analysis of Forest Service Forest Inventory & Analysis data show that there are substantial quantities of standing sawtimber on National Forest System lands across the United States. Using what are known as Integrated Resource Timber Contracts (IRTC's), the Forest Service can generate additional revenues to expand treatments—including non-commercial thinning, prescribed fire, and improved fish passage—while supporting family-wage, year-round jobs in forest management and wood products industries.

By contrast, if nearby mills close, experience has taught us that attracting new investment—particularly where there are few non-Federal forests to support a forest products industry—can be extremely difficult. Following the loss of most sawmilling capacity in Arizona, the Forest Service has struggled for over 12 years to attract capable, well capitalized industry to help it accomplish forest management work that will protect watersheds and communities from catastrophic fire.

Action Requested: Amend 16 U.S. Code § 6591c to strike Section (e)(B) and add clarifying language that requires Deposits in the Knutson-Vandenberg Fund (authorized by 16 U.S.C. § 576) for Stewardship End-Results Contracts that include merchantable timber.

Further, amend the purposes of Stewardship End-Results Contracting Projects (16 U.S. [Code] § 6591(c)) to add an eighth “land management goal” of retaining and expanding existing forest products infrastructure, including logging capacity and wood consuming facilities, in proximity to the National Forests.

Improving the Effectiveness of Farm Bill Insect and Disease, Hazardous Fuels Reduction Authorities: Beginning in the 2014 Farm Bill, Congress provided the Forest Service with the authority to “categorically exclude” insect and disease treatments on up to 3,000 acres of National Forest System lands. The 2018 Farm Bill expanded this authority to allow for hazardous fuels reduction work on acres designated using this authority.

These authorities have proven effective in expediting needed forest management work. However, the size of the areas allowed to be treated is too small to effectively prevent catastrophic fires. The Caldor Fire in California provided numerous examples of effective fuels treatments using the farm bill CE. Within that fire's 221,000 acre burned footprint, there were at least five areas treated using the Insect & Disease and hazardous fuels mitigation CE's. In every case, where the Forest Service had completed all the steps of the fuels reduction process, the treatments reduced flame length, fire intensity, and rate of spread.

However, the treatments were not conducted on enough acres to prevent the fire from being the first in history to burn over the crest of the Sierra Nevada mountains. Assuming all five categorical exclusions treated the 3,000 acre maximum, the treatments on the Caldor fire area amounted to 15,000 acres, or about seven percent of the fire area. If the Forest Service had been able to treat 15,000 acres under each CE, fire intensity and the damage resulting from it could have been reduced on fully $\frac{1}{3}$ of the fire and may have even allowed firefighters to control the fire sooner.

It is critical to remember that the Categorical Exclusions provided to the Forest Service through the last two farm bills do not open a single new acre of land to timber harvest. Use of all Categorical Exclusions requires compliance with existing Forest Plans, including land allocations like designated Wilderness Areas, Inventoried Roadless Areas, and other areas where removal of vegetation is prohibited. These CE's merely allow the Forest Service to quickly approve needed treatments after a brief review, rather than engaging in lengthier NEPA processes that have delayed projects as small as 1,600 acres for as much as 5 years or more.

Requested Action: Amend 16 U.S. Code §6591b to increase the number of acres which can be treated for fuels reduction and pest treatment from 3,000 to 15,000 acres.

Eliminate Unnecessary Restrictions on Infrastructure Spending: The Infrastructure Investments & Jobs Act (IIJA, Public Law 117-51) provided unprecedented investments over the next 5 years for a wide range of forest management actions on National Forest System lands. In effect, this bill both authorized and appropriated funds for several new programs that impact all operations of the National Forest System, including those created from outside the Public Domain. That places these programs firmly within the jurisdiction of the Agriculture Committee, and we'd urge you to carefully review them as the 2023 Farm Bill approaches.

Unfortunately, Congress chose to insert language limiting the application of these funds in ways that limits their effectiveness. For instance, the bill provided \$500 million over 5 years for "mechanical thinning and timber harvesting" and "pre-commercial thinning in young growth stands." However, each of these actions is limited with extraneous or redundant restrictions, including a limitation on precommercial thinning to include only those projects that produce "wildlife benefits to provide subsistence resources."

This requirement could be construed to limit the application of these new funds to only those National Forest System lands where a recognized Tribal government has valid subsistence rights, leaving large portions of the National Forest System ineligible for this important work.

Requested Action: Amend IIJA authorities to eliminate duplicative, unnecessary, or unhelpful limitations on management.

Streamline National Forest Management: Each National Forest is governed by a legally binding Forest Plan, developed through a collaborative process with ample opportunities for public involvement. Each Forest Plan designates some acres of National Forests as being "suited for timber production," while also recommending areas for more restrictive land uses, like wilderness designations.

In practice, these Forest Plans take too long to develop, and frequently, they wind up producing binding restrictions on land management, while land management goals—like early seral habitat—are both difficult to achieve and are rarely monitored to determine whether they are attained. When the Forest Service proposes management actions—such as creation of young forests or thinning fire prone stands—the agency must begin entirely new NEPA processes that make fleeting—if any—reference to the underlying Forest Plan.

The result is both an overly long planning process, and project level analysis that is too dense and voluminous to be of any use to anyone except experts. While the quantity of information required to move forward with a management project is impressive, the quality and accessibility to the public, leaves much to be desired. Moreover, conflicting court precedents, such as the disastrous *Cottonwood* case, have left in legal limbo whether Forest Plans are "ongoing actions" under the law. This has left the Forest Service vulnerable to frivolous lawsuits that frequently block or delay needed management projects.

By one estimate, injunctions based on the erroneous *Cottonwood* precedent have stalled over 350 Million Board Feet of timber in the Forest Service Northern Region alone, enough timber to frame over 29,000 single family homes. Congress stepped in and provided a partial fix to this problem in the 2018 Omnibus Appropriations bill. The 2023 Farm Bill should be a vehicle to complete this work.

Requested Action: Clarify that Forest Plans are not "ongoing actions" for the purposes of Federal law and make clear that consultation under the Endangered Species Act Section 7 is not required at the plan level. Second, Congress should, through amendments to the National Forest Management Act, clarify that projects

conducted on acres designated as suited for timber production should be subjected to reduced analytical requirements under other statutes. Planning for an accounting for “sensitive” resources on the National Forest System must grapple with the fact that about half the acres are in restricted land uses and will likely never see management.

Conclusion: FFRC appreciates the work this Committee has done to provide the Forest Service with streamlined authorities to accomplish needed work on the National Forests. As we’ve seen, the only limitation with these authorities is that they haven’t gone far enough, fast enough. The forest health crisis on our National Forests threatens not only the sustainability of the forest industry that depends on those forests, but millions of Americans who need them for clean air, clean water, and places to recreate. The forest industry is a tool to help achieve management objectives on our National Forests—ranging from hazardous fuels reduction to the creation and maintenance of habitat for multiple wildlife species.

By taking the steps outlined above, this Committee can help arrest the declines in forest health we’ve been witnessing for the last 30 years and put our forests on a better path. We look forward to working with the Committee and the other stakeholders on today’s panel to achieve these goals.

The CHAIR. Thank you very much to our witnesses for your testimony.

I see two of our colleagues on camera, and so I would ask Ms. Schrier or Mr. Johnson if you would consider taking the gavel as I need to no longer chair this hearing. My apologies to the witnesses. Would either of you, in order to proceed with questions, be willing to take the gavel for the remainder of our time or for some portion thereof?

Mr. JOHNSON. Ms. Spanberger, I would of course defer to Ms. Schrier, but I am making my way down to third floor now and could, at least on a short-term basis [inaudible] or others.

The CHAIR. Thank you very much, Mr. Johnson.

So Ms. Schrier, I will recognize you first for questions, and then Mr. Johnson will take over chairing the Committee as soon as he is here. My apologies to the witnesses. I do want to thank you for your testimony, both given and written. And I have a meeting with the Speaker about my legislation, which is why I must excuse myself, but I am very grateful for your time. And I will leave you in good hands with Mr. Johnson.

Ms. Schrier, you have 5 minutes.

Ms. SCHRIER. Thank you, Madam Chair.

Earlier this morning I spoke with Chief Moore about programs impacting forests on Federal land. And I want to turn my attention now to private lands and private forests now. There are over 620,000 acres of privately owned forest lands in my district and over 9 million acres in Washington State. Private forests are often sustainably managed to provide clean air, clean water, and wildlife habitat. They also provide a steady renewable supply of wood, which supports rural markets and jobs within my district. They often also use proper forest management practices, particularly for brush and tree thinning in order to help protect against wildfires. And they do it quite successfully.

Mr. Reed, as you know, timely and appropriate brush removal and tree thinning that reduces wildfire risk and gives trees and wildlife some space to grow and flourish is critical in our home state. Could you speak a bit more about Green Diamond’s expertise in forest management here, and what are the different benefits that these practices provide?

Mr. REED. Yes, thank you for the question, Congresswoman. It is true that the interests of private forest landowners are mostly in healthy forests, and that has obviously an impact on our core business but also many secondary positive effects of clean water and clean air and habitat and then not incidentally, significant reduction in wildfire risk. So we manage our forests with that in mind. It is not inexpensive. And we consider the treatment of forests to be investments in the future health and longevity of those forests and its resilience against the natural pests and fires and whatnot.

It is not a silver bullet, but it does work. And we had the experience—as I mentioned before, we had a significant wildfire cross into us in Oregon, similar forest type to your district. And where we had engaged in active thinning, removing stems either through commercial harvest or a pre-commercial harvest, we saw fire activity significantly change. We watched it across the landscape where we were a neighbor to the Forest Service, which, for any number of reasons, I have a lot of appreciation for the challenges the Forest Service had. They had not done any thinning, and the trees were completely wiped out. When it hit our ground, we still lost a lot of trees, but the fire behavior changed. That gave us an opportunity to address the forest.

So I feel very confident that the forest management activities that private forest owners engage in, again, it is not a panacea, it won't solve everything, but it certainly—

Ms. SCHRIER. Thank you for that stewardship. And that example is exactly why we have put so many resources into the Forest Service and trying to have year-round jobs that will manage our public lands as well.

Can I just quickly get your perspective on the wood products industry? We heard earlier about using every part of trees and how every part has value. And if you could talk a little bit about what that means for rural economies and forest health and for forest landowners, and maybe the role of small-diameter mills in that ecosystem.

Mr. REED. Yes, there is no question that those small-diameter trees provide a much more significant economic challenge than more valuable larger trees. And when you are operating on 100 year timescale like we are, though, you have to figure out how to address all of the issues in the forest. And sometimes the issue is too many small trees. And I think there are lots of programs that can be implemented to help promote the use of those small-diameter materials, but particularly in certain areas where we have lost infrastructure that processes it and in areas where you have to think about a 100 mile haul for this type of small, low-value wood with \$5, \$6, \$7 diesel prices, it is really tough. And in many cases, it is simply not economic even for a commercial owner to treat forests without it being a cost. So it is a challenge. There is no question about it. We are able to do it because we consider it an investment in our long-term future, but it is not a moneymaker.

Ms. SCHRIER. Understandable. That 100 mile haul is something I hear about frequently in the district, and it is why I am looking to bring a small-diameter mill to the 8th District. So thank you very much, and I yield back.

Mr. JOHNSON [presiding.] Thank you very much, Ms. Schrier. And I will recognize myself for 5 minutes.

And my question will be for Mr. Schultz. I just think, sir, about if we are really going to treat these millions of acres of both Federal land and non-Federal land as it is called for in the 10 year plan, how are we going to get that done? It seems to me, sir, that you simply can't get that done without commercial partners and without infrastructure like sawmills to be able to do something with those forest products. Let me give you an opportunity, sir. To what extent am I wrong about that? And if I am right, give us more of a sense of why.

Mr. SCHULTZ. Sure. Thank you, Mr. Chairman. So you are absolutely correct. One of the things to think about, you need to have that milling infrastructure on the landscape, so it is critical that we retain that infrastructure. It is not just the sawmills but it is the logging and hauling workforce that also accompanies that. So if we just focus on small-diameter wood, which I am not suggesting anybody is saying that, but that is problematic, that that cannot sustain the industry unto itself and sustain all of that infrastructure. So you need to be able to partner with the mills. The mills need to be healthy. You need to have a healthy logging workforce and a hauling workforce as well. So those are all critical to being able to manage the National Forests.

Other partners that have been discussed previously, it is the states. I am convinced that the Forest Service alone, as you have heard a lot of their challenges on hiring individuals, cannot get the work done alone without states, without NGOs, and without the industry, so we do need partnerships across—you heard Ms. Humphries talk about the Wild Turkey Federation, and they are a tremendous partner with the Forest Service in terms of the work that they do. So anyhow, we do need partnerships, but you cannot lose the infrastructure that exists, both the mills and the logging and hauling workforce. It is absolutely critical.

Mr. JOHNSON. Mr. Reed, I will give you an opportunity to feed into the conversation as well.

Mr. REED. Sure, no, I think that Mr. Schultz covered a lot of the key points. I would say that private forest land owners are happy to work in partnership with public forest landowners simply from a risk mitigation point of view. And while the core of our business is not harvesting on Federal timber land, we recognize that we have to be good neighbors to them, too. And if we want to mitigate the risk of fire or disease onto our own ground, we have to be willing to engage. And, as I said, I am appreciative of Chief Moore's willingness to engage with private-sector partners to try to achieve some of the goals that he is trying to try to get to, that we are all trying to get to.

Mr. JOHNSON. Yes, very well said. And to tie this up, I would just note that we know that there are some policies that make it more difficult to manage the forest, and a managed forest is a healthy forest. And when our policies cause certain pieces of these infrastructure—you talked about human infrastructure, that is a big one; sawmills, that is a big one. When these pieces of infrastructure decay or erode or go away, it is unbelievably difficult and in some cases near impossible to build them back up. And I think that

is why we want to make sure that when we talk about the sustainability of the forest, and of course we should, we want to understand that part of that sustainability is keeping that infrastructure intact.

With that, unless there are any other Members who seek to be recognized, I want to thank our panelists. They have done an excellent job informing the Committee's work. And of course, I also want to thank Chair Spanberger for her leadership and pulling this together, and for her ill-advisedly trusting me with the gavel for at least a short period of time.

With that, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any question posed by a Member.

And unless there is anything further, this hearing of the Subcommittee on Conservation and Forestry is adjourned.

[Whereupon, at 1:25 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY RANDY MOORE, CHIEF, U.S. FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Insert

Mr. THOMPSON. . . .

So my first quick question was what is the status of vacancies or do we have all the qualified silviculturists in the system, or how many vacancies currently exist that we need to be filling for folks who are actually qualified as silviculturists?

Mr. MOORE. Yes, I don't have a number for the actual silviculture position. I have numbers generally across the agency. But, Chris, as the National Forest System's Deputy Chief, do we have information?

Mr. FRENCH. We do. And we can follow up with the specifics. In general, Congressman—

Beginning early this year (2022), the Forest Service is increasing the silviculture workforce through national hiring events to respond to ever-growing need for forest management as well as the need to implement the Infrastructure Investment and Jobs Act, which incorporates the REPLANT Act.

The USFS has identified approximately 200 vacant positions in silviculture needed to meet the implementation work mentioned above. We are making good progress in filling these positions. Following a national hiring event this fiscal year, hiring actions on roughly half of these positions are in process or are complete. The remaining vacant positions are expected to be filled through a national hiring event held last month (September 2022) in conjunction with the Society of American Foresters Convention. The Agency continues to further refine estimates of needed silviculture positions through field capacity assessments.

The Forest Service is also growing the silviculture workforce's skills through its silviculturist certification program. In 2020, the agency streamlined the silviculture certification process. The new process reduces the certification process from more than 4 years to 2.5 years, allowing silviculturists to be certified faster.

SUBMITTED QUESTIONS

Response from Randy Moore, Chief, U.S. Forest Service, U.S. Department of Agriculture

Questions Submitted by Hon. Tom O'Halleran, a Representative in Congress from Arizona

Question 1. The vast majority of the Colorado River's headwaters originate in forested watersheds, which contain streams, wetlands, and meadows that capture snow melt and precipitation and provide critical water sources for communities, agriculture, and fish and wildlife. These forests and our natural water infrastructure in the Colorado River Basin are at risk from climate change, which contributes to more severe drought and wildfires. Within the context of the upcoming farm bill, where do you see the most opportunity to increase the pace and scale of investments of managing forests to increase drought and climate resilience? What are perhaps the most significant barriers that Congress could address to meet the scale of forest resilience necessary to respond to climate change?

Answer. Though the Forest Service has been working to manage the health of millions of acres of National Forests across the American West for decades, the scale, methods of work, and funding have not matched the need. In the West, climate change is making the fire and fuels problem even worse by reducing snow and rainfall and by increasing the frequency and duration of high winds and hot dry weather.

To address this crisis, the Forest Service launched a 10 year Wildfire Crisis Strategy to focus investments in landscapes where wildfire poses the most immediate threats to communities. Under this strategy, the Forest Service will work alongside partners to treat up to an additional 20 million acres on National Forest System lands and up to an additional 30 million acres of other Federal, state, Tribal and private lands. The Forest Service, through the Infrastructure Investment and Jobs Act (IIJA), has already made initial investments in ten landscapes across the West. In selecting these landscapes, the Forest Service considered where funding and other Federal investments could reduce exposure of people, communities, and natural resources to the risk of catastrophic wildfire.

The Four Forest Restoration Initiative (4FRI) in Arizona was one of the ten selected landscapes. The 4FRI Restoration Strategy outlines an approach to restore a landscape that includes six of the ten of the highest priority fireheds in the For-

est Service Southwestern Region. Multiple challenge/cost-share agreements and master stewardship agreements are already in place and are in development to implement the work in this landscape. 4FRI-associated watersheds capture, store, and release clean water to municipal, domestic, irrigation, and industrial uses for millions of people in the Phoenix metropolitan area and beyond. As outlined in the 4FRI Restoration Strategy, nine high priority partner projects will improve watershed conditions. One example is the Flagstaff Watershed Protection Project which will reduce the risk of severe wildfire and subsequent post-fire flooding in the Rio de Flag and Upper Lake Mary watersheds.

A second landscape in Arizona was selected as part of the Initial Landscape Investments under the Wildfire Crisis Strategy: Greater Prescott Area Wildfire Protection and Restoration. The project will improve overall ecosystem health and watershed function while reducing the wildfire threat to communities/areas, including but not limited to Prescott, Prescott Valley, Dewey, Humboldt, Mayer, Cottonwood, Crown King, Walker, Groom Creek, Ponderosa Park, Highland Pines, and Jerome. This project will meet the strategic treatment objective of restoring fire-adapted ecosystems to 40 percent of the landscape to reduce 80 percent of the exposure from wildfire.

Recently, \$65 million of IJJA funding was made available for investment in watershed restoration activities through the Collaborative Aquatics Restoration Program (CALR) and Legacy Roads and Trails Program. The Coconino National Forest in Arizona received funding for three separate projects, all of which will improve watershed conditions, reduce sedimentation, improve water quality, and improve wildlife habitat.

The funding from the IJJA and the Inflation Reduction Act (IRA) is a down payment for this work and will not cover the full costs of the treatments or maintenance work moving forward. The farm bill is a key piece of legislation that provides the agency and our partners critical tools to leverage these financial resources to get the work done. Authorities such as Stewardship Contracting, Good Neighbor Authority, Collaborative Forest Landscape Restoration Program, Wood Innovation Grants, and others authorized and expanded in past farm bills are critical in carrying out the 10 year implementation plan associated with the Wildfire Crisis Strategy, and help implement funding provided by the Infrastructure Investment and Jobs Act and Inflation Reduction Act. As Congress considers the next farm bill, we look forward to our work with the Committee to ensure the Forest Service has the tools it needs to address the wildfire crisis as well as successfully implement the full breadth of the Agency's mission.

Question 2 Ecologically based forest management practices, many of which are based on the extensive knowledge and practices of indigenous communities, such as prescribed burning and strategic mechanical thinning and nature-based solutions such as restoring high-elevation wetland and meadow systems have been shown to help manage climate risks to forest watersheds, including reducing post-fire impacts to critical water infrastructure and water quality. What steps have been made, or should be made to better deploy the full suite of forest management and restoration tools to enhance the resilience of forest watersheds and downstream water users to climate change risk?

Answer. The Watershed Condition Framework (WCF) is a tool the Forest Service uses to focus watershed restoration efforts on priority watersheds to return them to, or maintain them in, proper functioning condition. Proper functioning condition means a watershed is better able to withstand disturbances, including climate driven changes, without suffering lasting effects on water quantity, water quality, and aquatic communities. Climate vulnerability assessments and other climate change analysis tools inform the decisions to designate watersheds with priority status. Over the past 10 years, the Forest Service has completed restoration in 130 priority watersheds. There are another 324 designated priority watersheds with an estimated cost of \$800 million to restore. Currently, 53 percent of the 15,000 Forest Service watersheds are in proper functioning condition. The agency goal, with available funding, is to increase that to 54 percent by 2027, which means restoration of another 100 watersheds over the next 5 years.

As referenced above, climate vulnerability assessments are used to guide management or conservation actions and consider adaptive management or policy responses that may lessen negative impacts (or enhance positive impacts) of climate change and have been developed for most National Forests. Other tools that are used to enhance the resilience of forest watersheds and downstream water users to climate change risk include the Forested Watersheds Menu of Adaptation Strategies and Approaches and the recently-developed Streamflow in a Changing Climate application, which provides a variety of observed (historical) and predicted (mid-century

and end-of-century) streamflow metrics to help water resource practitioners understand effects of changing water metrics over time.

Finally, implementation of aquatic organism passages (AOPs) to benefit fisheries and other aquatic species also improves resilience in flood-prone areas while maintaining habitat connectivity. Funding the completion of AOP projects and other watershed-specific activities can contribute to the improvement of watersheds under the WCF.

- Restoring flood resiliency at road-stream crossings benefits active management by ensuring a functional road network and safe access valued by communities and partners.
- The agency's stream simulation design approach for AOPs increases transportation infrastructure resilience to flooding and helps maintain critical access for emergency response, recreation, and other economic activities for local communities.
- Prioritizing the upgrade or mitigation of undersized road-stream crossings represents a key agency climate change adaptation strategy to conserve important fish and aquatic species.

AOP projects are prioritized according to benefits to aquatic species, connectivity, flood potential, and essential projects identified under the WCF. Since 2008, the Forest Service has removed or improved more than 2,000 AOPs and is well on the way to improving another 1,500 AOPs by 2025.

Question Submitted by Hon. Eric A. "Rick" Crawford, a Representative in Congress from Arkansas

Question. Chief Moore, Blanchard Springs Caverns is a U.S. Forest Service-managed site in my district, located in Stone County, Arkansas. Blanchard Springs is a spectacular destination that attracts visitors from across Arkansas and the country. Not unlike other attractions, Blanchard Springs closed at the start of the COVID-19 pandemic. However, when other destinations were reopening in 2021 and early this year, Blanchard Springs has remained closed. In an email to my district staff on March 25, 2022, Forest Service staff outlined a very limited reopening set for June of July of this year. Unfortunately, upon inspection for reopening, significant problems with an elevator were discovered, necessitating repair. This is causing further delay of reopening.

Chief Moore, I am frustrated that a plan to reopen Blanchard Springs was not outlined until just a few months ago. With our knowledge of COVID-19, effective prevention measures, and personal risk assessment, the 2 year closure seems unreasonable. I understand that, until recently, the site did not have sufficient personnel, which might have been avoided with a quicker reopening. Now there is an actual problem—the elevator—which will cause further delay. Not to mention, distrust among the community that loves and supports Blanchard Springs. They want to work with you all to reopen this treasured attraction, and that will require meaningful outreach and transparent communication from your team.

My staff, along with staff from the office of Senator Boozman, had a positive meeting with your team from Arkansas and Atlanta on July 15, 2022. They indicated that the process to begin elevator repairs is underway and that they have sufficient staffing in place for projected reopening in late August.

When will Blanchard Springs Caverns reopen? Can you commit to working with our office to ensure Blanchard Springs is reopened as soon as possible and ensure communication with my team from your office?

Answer. Blanchard Springs Caverns reopened on August 18, 2022, after a 2 year closure. We are committed to ensuring clear communication with your office and the public regarding any questions related to the reopening.

**A 2022 REVIEW OF THE FARM BILL
(THE STATE OF CREDIT FOR YOUNG, BEGINNING, AND
UNDERSERVED PRODUCERS)**

THURSDAY, JULY 14, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 9:32 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: Representatives David Scott of Georgia, McGovern, Adams, Spanberger, Hayes, Brown, Rush, Sablan, Kuster, Bustos, Plaskett, O'Halleran, Carbajal, Lawson, Craig, Harder, Axne, Schrier, Bishop, Davids, Thompson, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Davis, Allen, Rouzer, Kelly, Bacon, Johnson, Baird, Balderson, Mann, Miller, Moore, Cammack, Fischbach, and Flores.

Staff present: Lyron Blum-Evitts, Rodney Brooks, Emily German, Josh Lobert, Lisa Shelton, Ashley Smith, Caleb Crosswhite, Trevor White, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. Good morning, everyone. The Committee will come to order. After brief opening remarks, Members will receive testimony from our witnesses today. And what a great subject and necessary and critical issue we will be dealing with, *A 2022 Review of the Farm Bill: The State of Credit for Young, Beginning, and Underserved Producers*, so important, so critical.

Before we get to our business today, I would like to take a moment and yield to my friend, our Ranking Member, the distinguished gentleman from Pennsylvania, to welcome our newest Member to the Agriculture Committee.

Mr. THOMPSON. Well, Mr. Chairman, thank you so much. It is a great honor and privilege to welcome the newest Member of the House Agriculture Committee, Ms. Mayra Flores from Texas. For those of you who do not know, Congresswoman Flores has an incredible personal story. She was born in Mexico, legally immigrated to the United States, and became a U.S. citizen at 6 years old. She worked alongside her parents in cotton fields to help pay for school, became a respiratory care practitioner, was a frontline worker during the COVID-19 pandemic, and now is a Member of Congress. She is truly an American success story, and I know we will all ben-

efit from her diverse experience and her passion for our country and the agricultural industry.

So, Mayra, welcome to the Committee, and I am certainly looking forward to working with you.

And with that, Mr. Chairman, I yield back.

The CHAIRMAN. And that statement, Ranking Member, goes for me as well.

Mr. THOMPSON. Excellent.

The CHAIRMAN. Welcome, Mrs. Flores. We are delighted to have you.

I am so excited about this hearing. This is a critical issue. We have to make sure that for generations and generations to come that we can have young and beginning farmers in place. And we have to make sure we are addressing those issues. And, so we are looking forward to hearing from each of you.

And I want to start out by saying that it should be noted that the average age of our farmers and ranchers in this country right now is approaching 60 years of age. That right there lets you know that this is a very important issue. It is a national and very critical issue. And we must ensure that there is a next generation of men and women who will take the place of those who are retiring from this grand occupation called farming. I am one of those who was a beginning farmer growing up on my grandfather's farm, and I know the meaning of that. And this is very critical to me.

And credit is one of those tools that we must make readily available. We have to do that. Farming is expensive now. Just going out and trying to get an acre of land is right now at the \$5,000 level. Just think of that. So this is why farming and ranching, which are not exact sciences, but there are ebbs and there are flows. And capital is needed throughout various times before, during, and after the growing season. And now we are having such drastic weather changes, but the farming must go on. And we have to be there with the resources to help our beginning farmers.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning, I'm grateful to be here today to hold another full Committee hearing to review the credit title of the 2018 Farm Bill with a focus on our young, beginning, and underserved farmers and ranchers.

I am also excited for the opportunity to continue to work with my colleague, Ranking Member Thompson of Pennsylvania, who shares an interest in this area.

Our young, beginning and underserved producers face difficulties in obtaining credit that our more seasoned and established producers may not encounter.

Historically, these groups of producers tend to have financial positions that are less desirable to lenders. Their financial position may be linked to a very limited production history that has not allowed for much equity to be gained in their operations or the smaller scale of production that they are engaged in, among other factors.

It should be noted that the average age of our farmers and ranchers in this country is approaching 60 years of age. We must ensure that the next generation of men and women who take the place of those retiring from this grand occupation have the tools necessary to continue to produce the food and fiber that we rely on for our existence.

Credit is one of those tools that we must make readily available to all our producers especially the young, beginning, and underserved.

Access to capital, but even more so, access to credit, is a pillar to establishing a successful agricultural operation. Farming and ranching are not an exact science

thus there are many ebbs and flows. Capital is needed throughout various times before, during, and after the growing season.

Credit access and availability is vitally important to keep a farming operation afloat. A well drafted and realistic farm business plan that displays positive cash flow is required to obtain sufficient credit, whether it be from Farm Service Agency (FSA), the Farm Credit System (FCS), commercial bankers or any other financial entity.

The FSA, Farm Credit System, and commercial bankers account for over 80% of the total outstanding farm loan debt and we want to ensure that these loan programs are meeting the needs of all our farmers and ranchers.

Today, we have a broad range of witnesses before us who will discuss credit. I am eager to learn how changes enacted in the 2018 Farm Bill have affected our producers and how we can improve these programs through effective policy decisions.

The CHAIRMAN. And with that, Mr. Ranking Member, I am going to turn it over to you for your opening statement.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. All right, Chairman Scott, thank you so much for convening this important hearing to assess credit issues in rural America. For any agriculture operation, one of the most critical relationships a farmer may have is with his or her lender. This is especially true for our young and beginning producers. Farming is capital-intensive. The cost of entry is incredibly high and can act as a barrier to entry for these new agriculturalists trying to start or grow their farm operations.

Unfortunately, because of the significant financial risk, some new borrowers are unable to secure commercially available credit, which is where the critical credit programs authorized by the farm bill step in. Direct and guaranteed ownership and operating loans delivered by the Farm Service Agency can provide the necessary funds to start or to grow a farm operation and set-asides for beginning farmers and ranchers ensure new operations have access to these loans.

As a part of the discussion today, I hope we learn what impact inflation is having on the financial health of our farmers. The announcement yesterday showing the consumer price index up 9.1 percent, highest rate in 41 years, has me incredibly concerned for the future of farm operations and for the ability of these credit programs to continue to provide the necessary funding for operations in this high-cost environment.

For me, the measure of success of our credit programs is the ability of borrowers to utilize their loans to get their operations on solid financial footing and eventually obtain access to commercially available credit. With soaring costs, I fear we may be going the opposite direction over the next several years, and we must ensure our Credit Title is adequate to weather the storm.

As many may know, the average age of a farmer is approaching 60 and is on an upward trend. FSA's credit programs can play a role in helping farm operations transition to the next generation, but we cannot examine them in a vacuum. Rather than simply pushing programs that allow producers to borrow more, the Committee should also be looking at solutions that help things cost less and reduce the reliance of young and beginning farmers on government loans.

Mr. Chairman, I would like to ask unanimous consent to enter into the record a letter that I, Leader McCarthy, and 94 House Members sent to President Biden on June 14.

The CHAIRMAN. Without objection.

[The letter referred to is located on p. 1363.]

Mr. THOMPSON. Thank you, sir. This letter identifies tangible steps the Administration could take immediately to address rising farm input costs and provide regulatory certainty for our producers. Reducing these costs will help all farmers, ranchers, and eventually consumers, but those who would see the biggest positive impact would be our young and beginning farmers and producers.

Many farmers and ranchers will borrow more in each growing season than the average American will borrow in their lifetime. But year in and year out our producers take this huge financial risk because they believe in the work that they are doing. They believe in living and raising a family in rural America. And with the right combination of policies, including our credit programs, we can help our farmers feed and clothe both this nation and the world.

So thank you to the witnesses who are here today, and I look forward to hearing your testimony. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, Ranking Member.

And the chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony and to ensure that there is ample time for questions.

[The prepared statement of Mr. Carbajal follows:]

PREPARED STATEMENT OF HON. SALUD O. CARBAJAL, A REPRESENTATIVE IN
CONGRESS FROM CALIFORNIA

Thank you, Mr. Chairman, and thank you to the witnesses for testifying before this Committee today.

It is vital that Congress empowers young, beginning, and underserved producers to become farmers that can contribute to our nation's food supply and economy. We should be working with USDA to make accessing credit and other resources needed to start farming as easy as possible. Access to resources have improved over the years but we can continue to do more.

And let me welcome our five distinguished witnesses again, and say thank you for taking some of your valuable time to come help us with this very, very important issue. And let me introduce our panel at this time. Our first witness today is Dr. Nathan Kauffman. And Dr. Kauffman is the branch Executive Assistant Vice President, and Economist for the Federal Reserve Bank of Kansas City. Welcome, Mr. Kauffman.

And our next witness today is Ms. Dañia Davy, who is a board representative for the Alcorn State University Socially Disadvantaged Farmers and Ranchers Policy Research Center.

And now to introduce our third witness today, I am pleased to yield to my good friend, the gentleman from Georgia, Mr. Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. Thank you, Chairman Scott.

And it is my great privilege to welcome Ms. Julia Asherman of Jeffersonville, Georgia. She is a first-generation farmer. She owns Rag & Frass Farm and is testifying today on behalf of the National Young Farmers Coalition. She does a wonderful job advocating for them. And I have been to her place in Jeffersonville. And she is not

originally from Georgia. I am glad she has decided to move to the 8th District and have her farming operation there. And I think most interestingly about Julia is she actually claims to have made peace with the fire ants.

The CHAIRMAN. That is very good.

Mr. AUSTIN SCOTT of Georgia. I know nobody who has been able to make that, so perhaps she could explain that from her website in a little while. Julia, we are happy to have you here today and look forward to your testimony.

The CHAIRMAN. I thank the gentleman.

And now our fourth witness today is Mr. Willard Tillman, a Member of the Board of the Rural Coalition.

And to introduce our fifth and final witness, I am pleased to yield to the gentleman from Illinois, Mr. Davis.

Mr. DAVIS. Thank you, Mr. Chairman. It is always good to see you. And thank you, Ranking Member.

I am hoping to be in person here before this hearing is done, but I did want to take the opportunity to introduce my good friend, Adam Brown. Adam and I have been friends for over a decade. Adam is the epitome of what a young farmer should be like and how to actually take a multi-generation operation and make it his own. Adam is a former state legislator in my home State of Illinois. He did a phenomenal job representing many areas that I have been able to represent over the last 10 years in central Illinois.

Adam, it is great to see you there. I am going to come in personally and harass you in just a few minutes. But welcome. We certainly look forward to your testimony.

And I will yield back the balance of any time you have given me, Mr. Chairman.

The CHAIRMAN. Thank you.

And now I want to again just say welcome to all of our witnesses. And now we will proceed with your testimony.

And our first witness will be Dr. Kauffman. Please begin when you are ready.

STATEMENT OF NATHAN S. KAUFFMAN, PH.D., ASSISTANT VICE PRESIDENT, ECONOMIST, AND OMAHA BRANCH EXECUTIVE, FEDERAL RESERVE BANK OF KANSAS CITY, OMAHA BRANCH, OMAHA, NE

Dr. KAUFFMAN. Well, good morning, Chairman Scott, Ranking Member Thompson, and other Members of the Committee. Thank you for the opportunity to testify today. My name is Nate Kauffman, and I serve as Vice President and Economist with the Federal Reserve Bank of Kansas City. In my role, I lead several Federal Reserve System efforts to track economic conditions in U.S. agriculture, with a focus on farm finances and agricultural credit conditions. Because the industry is vital to the region we serve, the Kansas City Fed is committed to understanding developments in agriculture and including perspectives from rural America in national discussions on the economy.

I am here today to share an overview of credit conditions in the U.S. farm sector, but before I begin, let me emphasize that my statement represents my views only and is not necessarily that of the Federal Reserve System or any of its representatives.

Agricultural credit conditions have improved significantly the past 2 years, alongside a rebound in farm commodity prices that began in late 2020. Prior to the pandemic, the U.S. farm economy had been in a prolonged downturn. From 2013 to 2016, farm income dropped by 50 percent, alongside sharp declines in commodity prices and elevated input costs. Although farm income increased modestly from 2016 to 2019, profits generally remained low. Measures of agricultural credit indicated that financial stress was building at a gradual pace through 2019 with increases in loan delinquencies and farm bankruptcies during that time.

Despite disruptions associated with the pandemic, economic conditions in agriculture have recovered dramatically since 2019. In the initial months of the pandemic, in 2020, agricultural prices had continued declining, but many of those prices began to recover later that year and remained elevated even in advance of Russia's invasion of Ukraine. By February of this year, the price of corn for example, was 65 percent higher than 2 years earlier. The prices of other major crops also increased sharply alongside strengthening economic activity and reduced production in several key growing areas. In addition to higher commodity prices, robust government aid programs administered during 2020 and 2021 also provided substantial financial support for many producers.

The recent rebound in farm incomes has eased much of the financial stress that had been building prior to the pandemic. Through 2020, working capital increased substantially, and borrowers remained in a strong financial position through 2021. By the end of last year, the rate of delinquent farm loans held at commercial banks dropped to 1.3 percent following steady increases in prior years. The average value of farm real estate, a key indicator of financial health in the U.S. farm sector, increased by nearly 30 percent from the end of 2019 to the end of 2021 across the Midwestern U.S.

Although agricultural prices have surged in recent years, input costs were also significantly increasing even before the war. Prior to the invasion of Ukraine, U.S. farm production expenses were expected to be 18 percent higher in 2022 than in 2019. The average cost of fertilizer was expected to be 43 percent higher. Since the invasion in February, many of these costs have continued to increase, highlighting a potential need for increased financing amid global concerns about food shortages and food price inflation. In recent months, a modest increase in farm loan interest rates has also contributed to higher production expenses, albeit to a lesser extent.

Despite growing concerns about intensifying cost pressures, agricultural credit conditions have generally remained strong in recent months. Since the beginning of this year, the value of farmland in the Kansas City Fed region has increased by an additional five percent through June. Most lenders indicate that loan repayment rates have continued to rise, problem loans have remained sparse, and credit is readily available to meet borrowers' financing needs.

Although economic conditions in agriculture have recovered the past 2 years and credit conditions have remained solid, the pace of improvement may be slowing. Through 2021, demand for farm operating loans declined steadily as profits expanded, and producers required less financial support from lenders. In the first quarter of

2022, however, lending activity at commercial banks accelerated due to a significant increase in the size of operating loans. Looking ahead, demand for farm loans in the Kansas City Fed district is expected to rise notably, and capital spending is expected to decline in the coming months for the first time since 2020. Numerous contacts have pointed to large increases in costs associated with fertilizer, fuel, and labor as primary drivers of higher expenses and a less favorable industry outlook.

To briefly summarize, uncertainty about the outlook for the U.S. agricultural economy is high and will depend significantly on global factors, particularly the war in Ukraine and the strength of global economic activity. Overall, the U.S. farm sector appears to be well-positioned financially for the remainder of 2022, but some measures do appear to have softened in recent weeks, and some producers may face more substantial credit challenges than others.

While the strength of farm income these past 2 years is likely to sustain credit conditions in agriculture for some time, some borrowers may face heightened financial stress in the year ahead if costs continue to rise and commodity prices ease further.

This concludes my formal remarks. I will be happy to take questions at the appropriate time.

[The prepared statement of Dr. Kauffman follows:]

PREPARED STATEMENT OF NATHAN S. KAUFFMAN, PH.D., ASSISTANT VICE PRESIDENT, ECONOMIST, AND OMAHA BRANCH EXECUTIVE, FEDERAL RESERVE BANK OF KANSAS CITY, OMAHA BRANCH, OMAHA, NE

Good morning, Chairman Scott, Ranking Member Thompson, and other Members of the Committee. Thank you for the opportunity to testify today. My name is Nate Kauffman, and I serve as a Vice President and Economist with the Federal Reserve Bank of Kansas City. In my role, I lead several Federal Reserve System efforts to track economic conditions in U.S. agriculture, with a focus on farm finances and agricultural credit conditions. Because the industry is vital to the region we serve, the Kansas City Fed is committed to understanding developments in agriculture and including perspectives from rural America in discussions on the national economy. I am here today to share an overview of credit conditions in the U.S. farm sector. Before I begin, let me emphasize that my statement represents my views only and is not necessarily that of the Federal Reserve System or any of its representatives.

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To briefly summarize, uncertainty about the outlook for the U.S. agricultural economy is high, and will depend significantly on global factors, particularly the war in Ukraine and the strength of global economic activity. Overall, the U.S. farm sector appears to be well positioned financially for the remainder of 2022, but some measures do appear to have softened in recent weeks. While the strength of farm incomes these past 2 years is likely to sustain credit conditions in agriculture for some time, some borrowers may face heightened financial stress in the year ahead if costs continue to rise and commodity prices ease further.

This concludes my formal remarks and I would be happy to answer questions at the appropriate time. Thank you.

The CHAIRMAN. Thank you so much, Dr. Kauffman.
Next is Ms. Davy. Please begin when you are ready.

STATEMENT OF DĀNIA C. DAVY, J.D., BOARD REPRESENTATIVE, SOCIALLY DISADVANTAGED FARMERS AND RANCHERS POLICY RESEARCH CENTER, ALCORN STATE UNIVERSITY; DIRECTOR OF LAND RETENTION AND ADVOCACY, FEDERATION OF SOUTHERN COOPERATIVES/LAND ASSISTANCE FUND, EAST POINT, GA

Ms. DAVY. Mr. Chairman and esteemed Members of the House Agriculture Committee, I am extremely honored to have this opportunity to highlight ongoing credit access challenges Black farmers, landowners, and cooperatives continue to face despite credit access improvements in the 2018 Farm Bill.

My name is Dānia Davy, and I serve as a board representative of the Socially Disadvantaged Farmer and Rancher Policy Research Center at Alcorn State University. My legal career has afforded me the opportunity to serve rural Black Americans, starting with my Skadden legal fellowship at a nonprofit law firm in North Carolina and performing outreach to socially disadvantaged farmers and ranchers in the *Pigford II*, *Keepseagle*, *Garcia*, and *Love* class-action discrimination settlements, and currently through the Federation of Southern Cooperatives/Land Assistance Fund, where I serve as Director of Land Retention and Advocacy.

I appear before you today from the Mississippi Association of Cooperatives in Jackson, Mississippi, where our legal team is providing estate planning services via our mobile estate planning clinic, which has brought us from Opelousas, Louisiana, to Jackson, and this weekend we will travel to Epes, Alabama. Along the way, we have had the opportunity to meet with many of our members consisting of Black farmers, landowners, and cooperatives that have stewarded the Federation throughout our 55 year history. This has been a deeply enlightening experience and a timely opportunity for us to hear directly from our members, which has largely been limited to virtual meetings due to the ongoing pandemic that continues to disproportionately devastate rural Black America.

This year, the Federation has hosted monthly listening sessions with our members, communities, and allied organizations, the most recent of which was focused on our members' credit access. Leading this work has given me specific insight into the deleterious impact of credit access challenges and ongoing corresponding disproportionate debt burden, loss of land, livelihood, and legacy for rural Black America.

I have spoken to a Black farmer in the Midwest who was unable to purchase the certified organic farm he sought because of the lengthy and duplicitous loan application process with his local Farm Service Agency. Despite the farmer's ability to cash flow his proposal and extensive farm management experience, the loan officer refused to approve the loan because the officer advised the farmer that the home on the farm was too nice.

A Black farmer in North Carolina shared with me that she was unable to expand her farm operations when she was discouraged from submitting her microloan application by her local FSA agent. Her loan officer advised her that she would need to collateralize her \$50,000 microloan with her home, which far exceeded the microloan value. The FSA agent encouraged her to use credit cards to finance her farm instead of applying for a microloan.

Perhaps the most disturbing story I have heard is from a Black rancher in Texas who first contacted us seeking assistance when the debt relief promise last year was delayed, putting his farm operations in a devastating limbo. In our most recent conversation, he further emphasized the vulnerability of his operation due to the combination of an unrelenting drought, extremely high input costs, and the uncertainty surrounding his promised farm loan debt relief, which put him at risk of losing his farm, thereby repeating the pattern of disproportionate land loss that cost his grandfather his entire farm operation, many acres of which this farmer has dutifully recovered to keep his farm ranching legacy alive and pass it on to his children. Despite my assurances of a farm foreclosure moratorium, he referenced contemplating suicide as he has taken the heartbreaking step of initiating the liquidation of his livestock and land to avoid foreclosure.

Access to credit is the lifeblood of any farm or ranch operation. Without it, no farmer can meet the demands of acquiring or accessing land, developing critical infrastructure, or purchasing inputs. The changes in credit access in the 2018 Farm Bill did not anticipate the devastation caused by the global pandemic and thus did

not go far enough to address the credit needs of farmers on the ground today.

Dating as far back as Reconstruction, Black farmers have been disproportionately denied credit or provided less favorable terms, a trend that is so well-documented as to be common knowledge. The longstanding history of race-based discrimination in credit access, properly resulted in the race-based class-action litigation against the USDA. As one devastating consequence of disparate credit access, Black farmers have been at least three times more likely to lose their land compared to White farmers during the same time period.

Our farmers are their communities' first responders. Not only do they perform the critical feat of feeding their families and communities, they create jobs, stimulate rural economies, and lay the foundation for thriving self-sufficient rural regions. As we review the farm bill and prepare for the scheduled reauthorization, we must make use of the opportunity to prevent the looming threat of loss of Black farms, land, and livelihoods that has been institutionalized by racially disparate credit access.

As the farmer stories I have shared this morning have outlined, our farmers need a more flexible, transparent, and streamlined FSA and loan application process. One way to do so is to simplify the first \$100,000 of any farm loan in line with the existing microloan process. This will accomplish both an increased limit for microloans and position our farmers to acquire their initial inputs and establish their initial infrastructure more expeditiously. For any loans that exceed \$100,000, we recommend alignment on farm ownership and farm operating loans to the farm ownership loans \$600,000 limit. There is already a process in place for evaluating a loan application's ability to cash flow up to the \$600,000 limit. And with the increased cost of all inputs, we need our farmers to have access to increased operating loan amounts to remain competitive.

Finally, our farmers need support and resources to develop a financial institution owned and controlled by farmers of color which accomplishes the same rural credit access as the existing Farm Credit System. I humbly submit this testimony. Thank you for the time.

[The prepared statement of Ms. Davy follows:]

PREPARED STATEMENT OF DĀNIA C. DAVY, J.D., BOARD REPRESENTATIVE, SOCIALLY DISADVANTAGED FARMERS AND RANCHERS POLICY RESEARCH CENTER, ALCORN STATE UNIVERSITY; DIRECTOR OF LAND RETENTION AND ADVOCACY, FEDERATION OF SOUTHERN COOPERATIVES/LAND ASSISTANCE FUND, EAST POINT, GA

Mr. Chairman and esteemed Members of the House Agriculture Committee, I am extremely honored to have this opportunity to highlight ongoing credit access challenges Black farmers, landowners and cooperatives continue to face despite changes to credit access in the 2018 Farm Bill.

My name is Dania Davy and I serve as Director of Land Retention and Advocacy for the Federation of Southern Cooperatives/Land Assistance Fund. As you may be aware, the Federation is a Board member of the Socially Disadvantaged Farmer & Rancher Policy Center of Alcorn State University. I have the distinguished privilege of speaking on behalf of both the Federation and the Policy Center.

My legal career has afforded me the opportunity to serve rural, Black Americans starting with my Skadden legal fellowship at a nonprofit law firm in North Carolina, then performing outreach to Socially Disadvantaged Farmers & Ranchers in the *Pigford II*, *Keepseagle*, *Garcia & Love* class action discrimination settlements,

and now through the Federation, a regional nonprofit cooperative association of cooperatives, I serve members throughout the South.

I appear before you from the Mississippi Association of Cooperatives office in Jackson, Mississippi where our legal team is providing estate planning services via our mobile estate planning clinic which has brought us from Opelousas, Louisiana to Jackson and this weekend we will travel to Epes, Alabama. Along the way, we have had the opportunity to meet with many of our members, consisting of Black farmers, landowners and cooperatives that have governed the Federation throughout our 55 year history. It goes without saying that this has been a deeply enlightening experience and a timely opportunity for us to hear directly from our members which has largely been limited to virtual meetings due to the ongoing pandemic that continues to disproportionately devastate Black, rural America.

Earlier this year, the Federation became an intervening party in defense of the American Rescue Plan Act Section 1005 Emergency Debt Relief for Farmers and Ranchers of Color in the *Miller v. Vilsack* case which is currently pending in the Northern District of Texas. We have also hosted monthly listening sessions with our members, communities, and allied organizations, the most recent of which was focused on credit access. This work has given me specific insight into the deleterious impact of credit access challenges and the corresponding disproportionate loss of land, livelihood, and legacy for rural, Black America.

I have spoken to a Black farmer in the Midwest who was unable to purchase the certified organic farm he sought because of lengthy and duplicitous loan application process with his local FSA because the loan officer felt the home on the farm was too nice despite the farmer's ability to cash flow his proposal and extensive farm management experience.

A Black farmer in North Carolina shared with me that she was unable to expand her farm operations when she was discouraged from submitting her microloan application by her local FSA agent who encouraged her instead to use credit cards to finance her farm.

But perhaps the most disturbing story I have heard is from a Black rancher in Texas who made a tongue in cheek joke about committing suicide. Despite my assurance of a farm foreclosure moratorium, this rancher has lost faith that he will ever receive the debt relief he was promised. He also expressed that the cost of maintaining his operation in light of the drought he is facing as well as extremely high input costs keep him in a constant state of severe emotional distress. He has taken the heartbreaking step of initiating the liquidation of his livestock and land to avoid foreclosure—a terrifying position he finds himself in because he believed in his government's promise of debt relief last year under Section 1005 of the American Rescue Plan.

Access to credit is the lifeblood of any farm or ranch operation. Without it, no farmer can meet the demands of acquiring or accessing land, developing critical infrastructure, or purchasing inputs. The changes to the 2018 Farm Bill simply do not go far enough to address the credit needs of farmers on the ground today.

Farmers are their community's first responders, not only do they perform the critical feat of feeding their families and communities, but they create jobs, stimulate rural economies, and lay the foundation for thriving self-sufficient rural regions.

As we review the farm bill and prepare for the scheduled reauthorization next year, we cannot forget about the real challenges our farmers are facing because of the delayed implementation of Section 1005 of the American Rescue Plan as passed by Congress and signed by the President. Our nation cannot risk the looming threat loss of Black farms, land, and livelihoods that this delay has created. The only solution to this threat is that all promised debt relief must be honored.

As the farmer stories I have shared this morning have outlined, our farmers need a more flexible, transparent, and streamlined Farm Service Agency loan application process. One way to do so is to simplify the first \$100,000 of any loan in line with the existing microloan process. This will accomplish both an increased limit for microloans and position our farmers to acquire their initial inputs and establish their initial infrastructure more expeditiously. For any loans that exceed \$100,000, we recommend alignment on farm ownership and farm operating loans to the farm ownership loan's \$600,000 limit. There is already a process in place for evaluating a loan application's ability to cash flow up to the \$600,000 limit and with the increased cost of all inputs, we need our farmers to have access to increased operating loan amounts to remain competitive. Finally, our farmers need support and resources to develop a financial institution, owned and controlled by farmers of color, which accomplishes the same rural credit access as the existing Farm Credit System.

I humbly submit this testimony and recommendations for your consideration.
Thank you.

The CHAIRMAN. Thank you so much, Ms. Davy.
And now, Ms. Asherman, please begin when you are ready.

**STATEMENT OF JULIA ASHERMAN, OWNER, RAG & FRASS
FARMS, LLC, JEFFERSONVILLE, GA; ON BEHALF OF
NATIONAL YOUNG FARMERS COALITION**

Ms. ASHERMAN. Thank you to the Honorable David Scott and Glenn “G.T.” Thompson for holding this hearing and for the opportunity to testify on this important topic. My name is Julia Asherman. I am the owner and operator of Rag & Frass Farm, a 3 acre certified organic vegetable and specialty cut flower farm in rural central Georgia. I have been farming for the past 13 years, the last 10 of which were on my own farm. I employ five people, three full-time and two part-time year-round. We produce and sell 12 months a year, and I do this with no off-farm income.

I am a first-generation farmer who grew up in the city. I learned to farm by trial and error, borrowing equipment from neighbors and learning lessons the hard way. The learning curve was very steep for all aspects of the farm: production, marketing, and running a business. In 2017, I was able to purchase my land with an FSA direct ownership loan. In 2019, I used a Farm Credit loan to buy our home next to the farm. And last year, I used an FSA operating microloan to buy a bigger delivery vehicle.

My farming story is unusual, and my written testimony includes a longer account with more specifics on the process and the barriers. If you take away one message from my testimony today, I hope it is that my experience, while a success story, highlights the roadblocks, risks, and layered complex challenges that young farmers face in accessing credit and finding secure land tenure. I am extremely grateful for the programs that do exist. I know they are part of the reason I am farming today.

When I bought my land in 2017, I had been in business and farming on it for 4 years prior. During that time, I kept detailed production and sales records. These records would become the most important factor in accessing USDA credit. I had no money for a down payment. All I had was experience and proof that it could be done.

My property was marginal land with buildings in poor condition in an unpopulated rural area 2 hours away from any major markets. If any of these factors had been different, it would be unlikely that the seller would wait for me and my FSA process, which took months. The process is quite slow with many steps going back and forth and no pre-approval options. Farmers easily lose out on potential properties by not being able to act fast, and I have known several farmers personally who have not been able to use FSA loans to purchase for this reason.

Diversified farms have the additional burden of fitting our business models into a framework that wasn’t designed to accommodate them. This is frustrating to the borrower and doesn’t build confidence in the application process or the USDA processes in general and is frustrating and more work for the loan officer as well. Any program that requires significant paperwork for what is essentially a gamble is not realistically geared towards being accessible to most farmers most of the year. Often, the cost of wasting time in

the moment is higher than the potential return down the road, and farmers are constantly forced to weigh our options this way.

Some of the loan process depends on a loan agent's familiarity with the type of operation you run. Beginning farmers often do things differently than the farmers many loan officers are used to. We are more likely to be organic; we are more likely to be diversified; we are more likely to be a smaller scale with more focus on specialty crops; we are more likely to direct market; we are more likely to be women, queer, people of color; and we are more likely to be first generation. These factors impact the business model and expectations of the borrower and contribute to the shared fluency or lack thereof between the borrower and the lender. Looking back, I can see my success with USDA loans was due in large part to luck, timing, and persistence.

I want to thank you for the past improvements such as the microloan program and for increasing overall loan limits for direct farm ownership loans. I hope that you continue this work in the upcoming farm bill. Specifically, I ask that you establish clear processes to implement a pre-approval mechanism for FSA direct farm ownership loans so that farmers do not lose out on farm ownership opportunities. I also recommend that USDA index direct farm ownership loan limits to inflation so that farmers can bring competitive offers to the table.

Last, Black, indigenous, and farmers of color need equitable access to USDA programs across the board, and this is especially true with access to credit.

Thank you so much for your consideration of my testimony and for listening to the voices of farmers.

[The prepared statement of Ms. Asherman follows:]

PREPARED STATEMENT OF JULIA ASHERMAN, OWNER, RAG & FRASS FARMS, LLC,
JEFFERSONVILLE, GA; ON BEHALF OF NATIONAL YOUNG FARMERS COALITION

Thank you to the Honorable David Scott and Glenn 'G.T.' Thompson for holding this hearing, and for the opportunity to testify on this important topic.

My name is Julia Asherman and I am the owner and operator of Rag & Frass Farm, which I started in late 2012. I farm 3 acres of certified organic vegetables and specialty cut flowers in rural central GA. I employ five people, three full-time and two part-time, year-round. We grow and sell 12 months a year, and I do this with no off-farm income. Until this year, when I had a baby, I worked 7 days a week. Now I work 6 days a week. Farming is mentally and physically challenging but I am pleased that I found my calling, and hope my testimony is helpful to your policy decisions and to other farmers.

I grew up in the city, born and raised in Boston and went to college in Chicago. I hail from several generations of proud gardeners. As a child my family would regularly drive 2 hours to southern Vermont where my grandparents had family land. This land is no longer in my immediate family, but it holds a piece of my heart. It is where I learned to love the country, walk the woods, and where I formed the foundational experiences that would direct me to farming later on.

While in Chicago, I studied printmaking and metal sculpture, and dabbled in bike mechanics on the side. Indirectly these experiences lead me to farming: the tools, the creation, the problem-solving, working with my hands, and getting dirty.

While in school I realized I wanted to live in the country, to carve out a piece of land and be self-sufficient. In 2009 I graduated and took the first cheap land opportunity I found, bringing me to rural central Georgia to a run down 1970's conventional hog farm. There I set to work turning it into a sustainable market garden with trial and error. There were *a lot* of errors. The learning curve was steep, and I had many hard lessons. Unexpectedly, the benefit to not learning from a more experienced mentor is I had no one telling me what was or was not possible.

It took 3 years of ‘faking it till I made it’ (and books, the internet, *etc.*) to get to a 1 acre small farm, selling at market, with customers. Initially, having not worked on a farm, I thought having one would be like having a big garden. I quickly realized it meant actually running a complex small business. I kept records, mostly so I could try to repeat my successes and minimize mistakes. I didn’t know then that the harvest and sales records would be the most important thing I created.

In early 2012, I was evicted. The land was abruptly no longer available to me, and I had to abandon the small farm I had worked the past 3 years on. I was a landless farmer. I had poured myself into creating my little farm, built infrastructure, but failed to get a clear written lease. This devastating experience was a wake up call to the risks of being a tenant farmer and the fragileness of a handshake agreement. It also planted the seeds of the benefit and security to land ownership.

I moved to a bigger and much more established farm a few hours away and worked as an employee for a season. It was one of the first certified organic farms in the state, and was 10+ acres of veggies and produce. This was a much bigger scale, with more equipment and mechanization. I was part of a 5–10 person crew and helped manage harvests, market, and planning. During this time I realized I never wanted to have tenuous land arrangements again, and I also didn’t want to work on just any farm, I wanted to work on my own farm. A farmer friend suggested I look into FSA loans. My first reaction was a hard ‘NO’, simply because I didn’t want to go back into debt after paying off my college debt. As I researched buying land, it sank in that I would never be able to own anything significant, like land, without debt.

It sounds crazy to say I found my land on Craigslist, but I did. 54 acres with an old fixer upper motel, old storefront, barn, pasture, pond, woods; in Jeffersonville, GA, a small town with 1,500 people and one flashing red light.

By early 2013 I had moved to the property with a sales contract, a business plan, and FSA loan application. When I moved I had \$2,000 in my bank account, my 1994 Chevy, two dogs and a cat. I was lucky and found a real estate attorney who took interest in my plan and drafted my purchase and lease agreements for a bargain. I borrowed a tractor from one of my ‘old man friends’. I disassembled and moved greenhouses that I got cheap from out-of-business nurseries, and put them up again. During the winter of 2012 when I moved to the land, I had no working electricity, no well or running water, and no heat. It was very rustic, I was resourceful, and I got crops in the ground 3 months later. I did not use any operating loans to get off the ground, I saved my debt for the land, and hobbled along for a few years, reinvesting as I went.

I was a tenant on the property (with a frequently renewing sales contract) for 4 years before closing on the property in 2017 with an FSA Direct Ownership Loan for \$75,000. The land had a lien on it, had underground storage tanks from an old gas station, and the seller was in a foreclosure/bankruptcy process, all of which added years to the process. By the time I bought the farm, I was fully in business growing on 3 acres. During the time that I was waiting to buy the land, I was farming and keeping records. These production and sales records, along with the records from the first farm I managed, were the most important factor in accessing USDA credit. I had no money for a down payment, all I had was experience and proof that it could be done.

So far the story sort of sounds like the ‘American dream’. However, in hindsight, my success with FSA has been due to a few specific lucky factors:

I am a persistent and stubborn person—not the giving up type. I stuck with the paperwork, the county loan officers, and did my homework enough that I could make it work, and sufficiently negotiate the deal with both the seller and lender. However, most farmers are busy and use their time strategically. Any program that requires significant frustrating paperwork and a lot of effort, for what is essentially a gamble, is not really geared toward being accessible to most farmers, most of the year. The cost of wasting time right now can outweigh the hypothetical benefits down the road. Having the right documents and records at your fingertips during the right time of year is a must, to make everything come together. Even then, a lot depends on the loan agent’s understanding of the type of operation you run. Beginning farmers often do things differently from the farmers my loan officers are used to working with: we are more likely to be organic or sustainable; we are more likely to be diversified; we are more likely to be smaller scale (with more focus on specialty crops); we are more likely to be direct market; we are more likely to be women, queer, people of color; and we are more likely to be first generation.

Luckily, I was able to successfully navigate the timeline. I was able to secure a lease in addition to a sales contract, and this was because the seller was motivated to sell. The property was on the market for a while, it was not in a desirable or populated area, and the condition of the buildings was poor. I was the only person

interested in it, and that was great for me and the seller. If I had been trying to buy a property in better condition, in a different area or facing any type of development pressure, it would be unlikely that the seller would wait for me and my FSA process, which took months. The current process is slow, with many steps going back and forth, and no pre-approval. Farmers easily lose out on potential properties by not being able to act fast. I have known several farmers who have not been able to use FSA loans to purchase for this reason.

My land was cheap. I paid \$75,000 for 54 acres. It was a small, comparatively easy first ask. Everything I claimed in terms of yield, price, budget, *etc.* was foreign or unbelievable to my loan officers. It would have been very difficult to get them to take me or my farm seriously if I didn't have the records to prove what a small farm can produce in food, or what it can gross in sales. Additionally, as you know the FSA requires 150% equity on a purchase loan—if my property didn't appraise at 150% of the sales price, then FSA would have taken a lien on my truck or tractor—which was pretty much all that I owned at the time. And I bought my tractor with cash, so adding a lien to the most important equipment I owned for land collateral would have been a tough pill to swallow. While my story is one of success, I am sharing it today because it highlights how precarious and fortunate my experience was. As a country, we can't expect farmers to find suitable land for a steal the way I did. We are looking at the impending transition of more than 40% of farmland, and this crisis of land access will only become more acute if we do not address it head on. Farmers like me across the country need access to good farmland, and to have secure tenure. Making sure that good farmland stays or gets into the hands of farmers must be a priority. Making sure we always have new farmers to replace those who retire is a priority. We need to focus this next farm bill process on policies that enable equitable land access and transition, and access to credit is at the heart of this issue.

While loan limits did not play a factor in my land purchase, I applaud Congress for increasing the limits in the 2018 Farm Bill, making land value a bit less of an access issue. However, loan limits certainly still affect many farmers in other areas, particularly near more populated areas. For me, that was not the foremost barrier. For farmers across the board, the lack of a pre-approval combined with the burdensome slow process, and the luck of the draw in finding a local loan officer with the necessary training, openness, and desire to meet the spirit of the law, are all salient challenges to be addressed. One of the great things about FSA is the ability to make annual payments, which reflects the seasonal cash flow of most farmers. If there was loan pre-approval, it would better reflect the seasonal workload. Farmers could get approved in their off seasons, instead of whenever they find the land, which could be in a very busy time.

I also applaud Congress and the USDA for the creation and implementation of the microloan program, especially as a way to open doors to underserved and beginning farmers. Not all loans are of equal size or risk. Last year I applied for a \$50,000 Direct Operating Microloan to purchase a bigger more reliable delivery truck. We did successfully get the loan and get the vehicle, however, the process was nearly identical to a Direct Operating Loan. I filled out the same paperwork, gave the same financial, crop planning, and cash flow projections as I did when I purchased the land. I did ask my loan officers if there was an expedited process since it was a microloan. I was told that since I was already in business, they would need the full paperwork of any operating loan. Essentially, my application process for this microloan (in terms of which documents I would need to supply and to what level of detail) was no different than any operating loan (up to \$400,000) that I might apply for. This is not in keeping with my understanding of the stated purpose of the microloan program, and would certainly be a barrier to any farmer not already familiar with FSA loan processes.

Another considerable factor in accessing land is student debt. While I *did* have student debt upon graduation, I had a 'reasonable amount', which I was able to pay off before borrowing from the FSA. We know from surveys conducted by the National Young Farmers Coalition, that most of the new farming generation is likely to be college educated. If I still had debt to manage, I am not sure if I would have been able to make the numbers work for the loan, let alone start a farm at all. This is a hugely critical issue for young farmers like me, and is an even greater challenge for young farmers of color. It is challenging enough to enter a physically and financially risky profession that requires intense capitalization. For new farmers entering farming with immense debt, they face a real risk of failure or incredible hardship, if they are able to move forward at all. At the same time, I believe that I would not have been successful in my land access journey without my college education, and if I was not college educated, I doubt I would have been able to navigate the loan processes with FSA effectively.

Farmers don't dream of a life filled with debt and financial stress. Access to credit can help us get our farms off the ground but we still need basic quality of life things afforded to most other working people: health insurance, basic risk mitigation, family leave, being able to send our kids to college, rural high speed internet, and a protected natural resources and climate to work within. The old timers say "The quickest way to end up with \$1 million farming is to start with \$2 million."

To my surprise, despite my long repaid Federal student loans, despite my two current FSA loans, and despite my Farm Credit loan, I still do not have a credit score. Apparently Federal and Farm Credit debt do not contribute to credit scores. This means that regardless of my good standing on my loans, I still have no credit history, and if I were to go to a traditional lender, they may not lend to me, or I might pay the highest interest rate on the least favorable terms. I don't understand why this is the case or how you can remedy it, but I work hard to pay off my debt, and my Federal credit counting for nothing seems to cut me out of opportunities. Furthermore, since USDA has an increasing commitment to beginning and underserved farmers, if our Federal debt could help us build traditional credit, we would be more independent and have more options available to us.

I ask that the next farm bill consider these issues.

Establish clear processes and structures to implement a pre-approval mechanism for Farm Service Agency Direct Farm Ownership Loans, so that farmers who have identified available land and gathered necessary supporting information do not lose out on farm ownership opportunities simply because they need to utilize USDA's help. Further, I recommend that USDA index Direct Farm Ownership Loan limits to inflation, so that farmers can bring competitive offers to the table.

Thank you for listening to me and to the voices of farmers, even if we are small or young farmers. The farm bill touches everyone in this country, and your policies have an incredible impact on the direction our farms take. Please consider the big picture urgency for the nation's farmers, and the subsequent opportunity to make agriculture thrive. Our work is dangerous, risky, and exhausting, and we persist despite sacrifice and challenges, forgoing benefits many people enjoy.

Many small, beginning, and underserved farmers feel largely invisible to most consumers, overlooked by most of society, and overlooked by our government. We feed and clothe communities and steward our nation's most precious resources for the future. Our resilience is a matter of national security. Yet many of us survive with luck, willpower, and with little tidbits of USDA support sprinkled in. Young farmers, beginning farmers, and underserved farmers need policies that acknowledge inequities, lift the burdens, give us pathways to success, open doors, watch our backs, and instill equity into agriculture.

Sincerely,

JULIA ASHERMAN,
Owner and Operator of Rag and Frass Farm.

The CHAIRMAN. And thank you, Ms. Asherman.
And now, Mr. Tillman, please begin when you are ready.

**STATEMENT OF WILLARD TILLMAN, MEMBER OF THE BOARD,
RURAL COALITION/COALICIÓN RURAL, OKLAHOMA CITY, OK**

Mr. TILLMAN. Good morning. My name is Willard Tillman. I am a Board Member of the Rural Coalition. Chairman Scott, Ranking Member Thompson, and all the other Members, thank you for inviting the Rural Coalition to speak here today.

I was raised on a farm in Wewoka, Oklahoma. For decades, my family ran cow-calf operations. Me, myself, I am now the Executive Director of the Oklahoma Black Historical Research Project where I work with farmers and ranchers for decades about the challenges that they have in their areas. Right now, I am currently working with the Black mayors of all the historical towns in Oklahoma trying to reveal their economic base. We are seeking investments in rural communities' infrastructure needs and other businesses. This morning, I will concentrate on critical issues with livestock production to help build progress from the 2018 bill to assure fair service to all producers.

The value of land in Oklahoma at this particular time is highly vital. Investors are putting the price of land up so high that young producers can't even get to invest in their own farms. Small-scale operations and multi-gen land tenure for the nation's moderate- and small-scale farmers and ranchers with special emphasis on beginning and historical producers should be a key goal for the next farm bill. Fair and efficient, affordable agriculture credit is an essential underpinning to the continuity of these farms and operations and sustainability of these communities.

Several producers have basically talked about the tactics and everything that they are confronted with in the offices, which basically hinders a lot of the financial services and things that they need such as fair treatment just to basically be able to go in and get the necessary treatment that other people get when they go into the office. There seems to be a double standard. And I think that there should be more stringent checks and balances on these particular things.

But we have demonstrated as a community-based organization over many years that technical assistance to these communities and community-based organizations are who the people trust. Our organization had partners across the country used to technical assistance to farmers learned enough about the programs to understand the benefits and how to access these programs. And we go through this process, and we are here as—I am here as a member of the Rural Coalition, and I urge this Committee to work on more modernized farm loan programs and expanding the FSA microloan benefits. A producer who is starting and transitioning farms needs to have an equitable chance to build sustainability.

Our producers strongly support the 7 year operating loan with no payment for 3 years. A farmer who can build 3 years of equity should be able to make payments on his land, operate the farm, gain the ability to become sustainable. And we urge that the farm be authorized such a loan structure to afford producers the chance to build equity and ensure that they can cash flow and cover the payments of their loans.

In closing, farmers have said to me, "Farming is a hard job. We face all kinds of obstacles, floods, wildfires, and doing all this. But most underserved farmers have a full-time job off the farm. They face all these obstacles, the farmer is committed to the legacy of the land." And I asked him, "Why do you keep doing this?" And the farmer said, "I love it. I just love it. I love farming." Thank you.

[The prepared statement of Mr. Tillman follows:]

PREPARED STATEMENT OF WILLARD TILLMAN, MEMBER OF THE BOARD, RURAL COALITION/COALICIÓN RURAL, OKLAHOMA CITY, OK

Good morning my name is Willard Tillman. I am here as a Board Member of the Rural Coalition. Chairman Scott, Ranking Member Thompson, and Members of this Committee, I want to thank you for your invitation to the Rural Coalition to be here today to share our thoughts about access to credit for historically underserved, limited resource and new and beginning farmers and ranchers.

For 44 years, the Rural Coalition has effectively worked with the U.S. House and the U.S. Senate on legislative proposals involving farm programs, equity, and agriculture credit, which is the topic of today's hearing. The historically underserved farmers and ranchers that we represent play a critical role in the helping our nation maintain and expand its role of as the world's paramount leader in the production and marketing of an abundant, safe, and affordable supply of food and fiber.

I was born and raised Wewoka, Oklahoma, where my family has for decades and continuing until to today, run cow and calf operations. I have myself and farmers. In my role as Executive Director of the Oklahoma Black Historical Research Project (OBHRPI), I've worked for over 2 decades with hundreds of cow-calf and other producers throughout the state of Oklahoma. At present, I am also working closely with the mayors of the historic black towns of Eastern Oklahoma, to rebuild and strengthen their economic bases. This includes seeking investments for local meat processing facilities.

A strong agriculture sector is critical to economic progress in these communities. This progress will require investment in the continuing and expansion of agriculture in this region. And it will also require an investment in protecting land tenure for current farmers and growing a new generation of producers to carry on the deep knowledge of the generations who have held and worked this land.

At present, land values in Oklahoma and beyond are highly volatile with outside investors driving up land prices in many areas. Anticipation of the expansion of carbon markets and authorizing payments for ecosystem services also appears to be driving investment both in farm and forest land. This trend should be monitored closely as we move into the 2023 Farm Bill especially with changes in investment related to climate.

We are working hard to help the next generation understand the value of the land to the family and community. A family can only sell their land once. Sometimes heirs can only see immediate money from a sale without understanding that they are giving up their family's lifetime legacy of a lot of hard work and how their elders in the face of all kinds of discriminatory practices were able to sustain and still hold onto that land.

Protecting and expanding multi-generational land tenure for this nation's moderate and small-scale farmers and ranchers, with special focus on beginning and historically underserved producers should be a key goal of the next farm bill. Fair, sufficient, and affordable agriculture credit is essential underpinning to the continuity of these farming operations and to the stable and sustainable economy of these communities.

In our testimony for the record, we will address our recommendations for credit in more detail. This morning I will concentrate on critical issues for livestock producers and how to build on the progress in the 2018 Farm Bill and your previous efforts to assure service to all producers.

2018 Farm Bill

The Agriculture Improvement Act of 2018 ("2018 Farm Act") increased support for farmers with limited access to traditional lending markets placing "special emphasis on making loans to the next generation of farmers, including beginning farmers, farmers with limited means, and military veterans."

The adjustment in the maximum levels for direct farm ownership and operating levels is helpful as producers here contend with rising land and operating costs. Expanding the loan authorization level especially for direct loans is important. In 2023, we urge the Committee to consider what additional adjustments with special emphasis on building land tenure for beginning and historically underserved producers.

The expansion of funding for direct operating microloans was helpful; we urge the Committee to consider further expansion. We strongly support the 50% loan funds set aside for beginning farmers and ranchers; we urge the Committee to consider a set aside for historically underserved producers. Farm loans are one of the farm programs most important for this group of producers who lack real access to the more richly supported commodity and market facilitation programs due to their smaller scale, livestock, or other diverse operations.

We support the 2018 authority provided to the Secretary to reduce or waive the eligibility requirement that an applicant have participated in the business operations of a farm or ranch for 3 years for farm ownership loans based on certain experience, training, or education—in our full testimony, we will explain why this waiver should be expanded or the requirement adjusted because in our experience it is often not fairly applied and contributes to the active discouragement many historically underserved producers receive.

While we support the increases in the loan guarantees from 90 to 95 percent for socially disadvantaged and beginning farmers, we are still not seeing how guaranteed lending is truly accessible to the producers we serve.

We strongly supported the new Equitable Relief provision which authorizes the Secretary of Agriculture to provide equitable relief to farm loan program borrowers who were who acted in good faith but who have problems in their loans due to mistakes or inaccurate guidance from FSA. Relief measures, including a borrower's

right to retain the loan or other benefits associated with the loan, or other means as the Secretary deems to be appropriate, still need to be implemented, refined, and applied to assure truth and fairness in lending.

We further express our thanks to this Committee for their work to pass and include the historic “Fair Access for Farmers and Ranchers” heirs property provisions in the 2018 bill. Sections 12615 (7 U.S. Code § 2266b. Eligibility for operators on heirs’ property land to obtain a farm number), 5104 (7 U.S. Code § 1936c. Relending program to resolve ownership and succession on farmland) and 12607 (7 U.S. Code § 1936c. Relending program to resolve ownership and succession on farmland) are intended to assure USDA affords fair access to its programs for farmers and ranchers who operate farms on “heirs’ property.” The final language ensures that more farmers—especially African American farmers and farmers of color operating on land with undivided interests—can finally access critical USDA programs that enable and find new support to work out complex heirship issues to obtain clear titles to their land.

Continuing Issues for Livestock Producers

Farming is not an easy job. In Oklahoma, in addition to volatile land prices, producers face all the different weather conditions a person can stand including flood, drought, and wildfires. To face all these obstacles, it is essential that farmers are committed to the land. A farmer who was asked recently “why do you keep doing it?” “Because I love it,” he responded.

However, farmers from our communities remain legitimately distrustful of USDA and the Farm Service Agency in particular. In this section, I’ll address some realities and some opportunities. For example, we have observed many times when local FSA loan officer could have done something to help producers navigate loans and losses, but they did not.

Several producers I work with reported extreme pressure tactics on loan payments that made them feel like their land was being threatened. For example, a producer in Okmulgee County said the local office make them feel like they are going to foreclose. So, the producer paid the debt off before the time it was due. Only later did they learn that when they pay it off early, they were deemed no longer eligible for another direct loan. They were forced to graduate, and then sent to the bank where interest rates were 6–8%—unaffordable for these producers.

In 2021, a Black farmer employed in another state sought the loan he needed to operate the family farm in Oklahoma where he grew up and farmed throughout his life. After his father passed, he filed all necessary documentation of ownership with Farm Service Agency. He contacted us because when he applied for a loan, the local office told him that he had to demonstrate 3 years of experience before he would be eligible for a loan. Before the office would provide him further assistance, they further directed him in a letter to provide a certified copy of a lease to his neighbor so the neighbor could collect benefits from the crops he was growing on this farmer’s land.

The farmer provided the office with a copy of the “cease and desist” letter he had sent to his neighbor to stop using his land and complained to the office about their role in enabling this incursion on his land. The local official then asked him “do you want to sell your land?” He was further instructed not bring this complaint to a higher level because he would “get the previous staff of the office in trouble.” He was unable to secure the loan in 2020, which would have left him unable to benefit from the ARP program. He filed a complaint with the inspector general which remains unanswered and has filed a civil rights complaint that is pending.

Another producer had was unable in 2019 to get a bank loan because he could not get FSA to release a lien on his property. He was trying to replace a 100 year old decrepit barn with a new barn that would include a small meat processing facility. The office suddenly discovered the old barn had a \$30,000 even though it was not included in a previous appraisal nor was it required to be insured. He was unable to secure the bank loan and is still working to secure resources to construct a processing facility he hopes would serve neighboring producers in his community.

Rural communities are often small and insular. County office staff may have social or relational connections to third parties such as appraisers, or to other parties who may have an interest in a farmer’s land that could be advanced by a low appraisal, for example. FSA lacks strong and clear standards and practices designed to prevent and require disclosure of conflicts of interest that can affect land transactions and ownership to the detriment of certain groups of producers.

Appraisals are another area of concern, as are shared appreciation agreements. There are no quick ways to appeal and get a fair review of decisions, or even the ability to submit another appraisal and get a fairer decision in a reasonable length of time. In farming, delay can spell disaster or the loss of market opportunity.

Within the Rural Coalition, we have seen many other examples of discouragement of services, denial of services, and situations where the use of discretion provided to county office staff has convinced black and other historically underserved producers that there are different standards for them than for other farmers.

The authority provided in the 2018 Farm Bill that provides the Secretary discretion to waive the 3 year requirement of experience for beginning farmers and ranchers could be viewed as a step forward. However, is this waiver fairly applied, and how would this Committee know? Will children of the established producers well known to county office staff received the same scrutiny of skills as historically underserved and young farmers who walk in the door?

How does this apply to the Black military veteran who grew up on a farm in southeast Alabama and after completing his tour of duty went into a local office to seek a loan to start farming again. The local office staff member replied by throwing the folder he brought in at his head and telling him not to come back until he could demonstrate 3 years of experience. There need to be the same rules for all producers including in demonstrating experience.

During the pandemic, many of the historically underserved producers who applied for the Coronavirus Food Assistance Program, were required to provide documentation for their claim, while the word of other farmers that their claim was correct was accepted in many offices. In another case, in southeast Alabama, producers were told that the type of specialty goat they produced were not eligible for CFAP. We worked with our members there and raised the issue to FSA headquarters, and some producers were able to secure some assistance. But many others were unwilling to go back into the office due to the treatment they received.

Access to other programs besides loans is critical to being able to cash flow loans. We work with producers to get them to understand the content of the program—this is the part that often does not happen without CBO's. We must break it down for them and show how it works. If farmers don't understand—they won't mess with it. However, programs like EQIP to control invasive species and provide solar water wells for cattle, are very beneficial.

The Livestock Indemnity program is also essential for producers to cover losses of cows, which are also collateral on their loan. However, in this state, producers we serve often farm on more fragile land. There are gullies at the edges of their property. When we have floods, which are frequent, the cows wash away, and you won't find them—you have the picture. The farmers can show in their records that they had this many cows but now only have this many. But FSA requires pictures and documentation that the farmer cannot produce. There needs to be some other way to ID loss.

Producers are very aware that FSA offices took the word of other farmers in certifying production and losses in the livestock indemnity program and in CFAP, but not from them. They want FSA and other USDA agencies to apply the same rules for everyone.

The long history of practices such as these had led farmers not to trust with these agencies. For example, when FSA contacts a farmer to tell them "We need your AGI" the older guys don't know what AGI is or why it is being requested.

We have learned over the years that support for technical assistance by community-based organizations who are trusted to work in the interest of these farmers can help producers understand program requirements and their purposes is essential. Qualified TA is essential to rebuild trust. Our organizations and our partners across the country then use TA to help the farmer learn enough about the program to understand its benefits and learn how to access it. TA investments also help us develop proactive working relationships with FSA and NRCS county offices that help producers.

Even as we work with producers to meet all their responsibilities to programs, we need the help of this Committee to set in place standards for service, and accountability for fair service, and protection from conflicts of interest. This is especially important in a time when there are growing outside investments in farm and forest land that have implications for this nation's small farmers, rural communities, and to the stability of agriculture lending system itself.

Heirs Property and Dormant Land

Oklahoma Black Historical Research Project worked over the past decade to engage Black farmers in NRCS programs. With Rural Coalition and the Scholars of the America University farm bill practicum, the researched the data and experiences of Black farmers in access USDA programs. Their findings are summarized

and published in the research paper on the *Ecological Costs of Discrimination*¹ This research formed the basis for our push to include the Heirs Property provisions in the 2018 Farm Bill.

Invasive species thrive in places facing climatic changes and put farmers at further risk. In Oklahoma, *eastern redcedar* is spreading at the rate of 800 acres a day. Without help for mitigation from USDA especially for historically underserved farmers who farm on heirs' property, small cow and calf operations have seen their grazing land taken over by redcedar, which competes with pastureland by consuming up to 55,000 gallons of water per acre per year and puts the viability of their operations at further risk. Other risks they have faced over the past decade include severe cycles of floods, droughts, fires, freezes and tornados. Farmers who produce on land held in undivided interests were being deemed ineligible for critical NRCS programs, because they lacked the documentation to secure farm and tract numbers to demonstrate their control of the land on which they sought benefits.

The problem of eastern redcedar incursion is compounded by that fact that in Oklahoma, we have had large amounts of dormant land for years. Families may have kept land while they leave to seek jobs in other areas. Or, after the passing of elder landowner the family has been unable to resolve heirship issues, or secure legal assistance to help them. In rural areas, there are very few attorneys to help them and many of them may be conflicted—representing others who have an interest in acquiring that land.

We are working now as hard as we can to connect young farmers to families with dormant land. It takes time to work out long-term lease agreements and point out the benefits of leasing the land to these young farmers that are out there looking for land. Work to protect land tenure and move dormant land back into production is urgently needed at this time because with rising prices of land in some areas due to the influx of outside investors—from \$200–\$300 an acre to \$600–\$800—we are working against the clock to assure that young farmers have a chance.

Rural Coalition is just beginning a new Technical Assistance Project under the National Institute of Food and Agriculture in cooperation with OBHRPI and nine more RC members, to provide technical assistance to both farmers and landowners in assembling the paperwork they need to complete wills and succession plans so they are prepared to work with attorneys to complete these essential documents. We are also continuing our work to help farm operators, be they owners or renters, to secure farm and tract numbers and access to USDA programs. This work includes a special focus on helping producers farming on land held in heirs' property status to use the 2018 Farm Bill alternate documentation authorities to secure a farm and tract number and access NRCS programs[.]

Heirs Property and Forest Land

Securing and building land tenure is also critical to protecting the intergenerational transfer of land and wealth and building a community with a healthy ecosystem and a tax base to sufficient to support quality education, employment opportunities, and a strong infrastructure. The following abstract of the paper "*Taking Goldschmidt to the Woods: Timberland Ownership and Quality of Life in Alabama*"² summarizes the impact of the degree of highly concentrated land ownership on children, families, and the communities:

We use a database of property tax records for 13.6 million acres representing every parcel of privately owned timberland in 48 rural Alabama counties to test two hypotheses inspired by Walter Goldschmidt relating land ownership and quality of life. Our data show private ownership is highly concentrated, and 62 percent is absentee owned. We employed Pearson correlations alongside Poisson and negative binomial regression models to estimate influence of both concentrated private ownership and absentee ownership of timberland. Our findings support Goldschmidt-inspired hypotheses that concentrated and absentee ownership of timberland exhibit a significant adverse relationship with quality of life as measured by educational attainment, poverty, unemployment, food insecurity, eligibility for free or reduced-price lunch at public schools, Supplemental Nutritional Assistance Program participation, and population density. Low property taxes in Alabama limit the ability of local governments to generate revenue to support public education or meet other infrastructural or service needs in rural areas. We call on rural sociologists and kindred spirits to pay more attention to

¹Fagundes, Tillman, et al. *Ecological costs of discrimination: racism, red cedar and resilience in farm bill conservation policy in Oklahoma*, October 2019, RENEWABLE AGRICULTURE AND FOOD SYSTEMS 35(4): 1–15. DOI: 10.1017/S1742170519000322.

²September 2020 *Rural Sociology* 86(1) DOI: 10.1111/ruso.12344 Authors: Conner Bailey, Abhimanyu Gopaul, Ryan Thomson, Auburn University; Andrew Gunnoe, Maryville College.

*the fundamental importance of land ownership which shapes the foundations of power and inequality affecting rural life in America and beyond.*³

The policies this Committee will enact in the 2023 Farm Bill will impact producers, forest and farmland owners and rural communities in a profound way. There are stark implications for communities and the rural economy in the burgeoning investments in both farm and forest land especially in the southeast. Investments in forests related to energy production and climate credits can be expected to increase volatility in land prices.

At the same time, disasters are increasing, including both hurricanes and fires that affect forest in the southeast more than before.

Heirs Property, Housing and Rural Communities

We look forward to other opportunities sharing our proposals to more fully address the set of issues we have raised, including with respect to climate. We further point to a critical need to assure farmers have access to the qualified and trusted legal and technical assistance necessary to protect their land.

In October 2019, Rural Coalition member group, the North Carolina Association of Black Lawyers Land Loss Prevention Project authored a Continuing Legal Education (CLE) manuscript “Assisting Heir Property Owners Facing Natural Disasters: History and Overview of Heirs Property Issues,” and participated in a collaborative CLE webinar to train NC Legal Aid volunteer attorneys on service to impacted heirs’ property owners. According to Legal Aid’s coordinator, there were approximately 124 webinar participants on that date and the course will continue to be available for training purposes.

The benefits of the expansion of individual direct legal intervention, technical assistance, outreach and policy innovation and implementation include increased property retention, removal of barriers to assistance programs, enhanced food access, heightened farm business risk management, and family engagement in multi-generational planning as a safeguard against inherent co-ownership vulnerabilities.

We project that the pandemic will continue to emphasize the need for education on what defines sustainability and how environmental, economic, health stressors are intertwined and cumulative.

Modernize Farm Loan Programs

We urge this Committee to continue its work modernize farm loan programs. Congress should recognize agricultural lending as a good investment in farmers and the farming and rural sector. These farmers who typically have smaller scale operations, do not need large operating loans. However, these loans are crucial to their operations. And they need access credit at the time they really need it.

We recommend that:

- The 2023 Farm Bill emphasize the importance of investments to build land tenure and sustainable and resilient operations for the next generation of young, historically underserved, and mid-scale farmers and ranchers as the basis of strong farm and rural economies.
- Monitor compliance and assure all USDA offices serving farmers automatically provide a complete **receipt for service** for every interaction with producers and require that these receipts also be reviewed by agencies to assure every producer is receiving the same quality of service in each office at the same time of the year.
- Microloans from FSA are beneficial to many producers including in urban areas. Funding for microloans should be expanded.
- Producers who are starting or transitioning farms need an equitable chance to build sustainability. Our producers responded strongly to proposals to provide 7 year operating loans with no payments for 3 years. If a farmer who builds 3 years of equity, should be able to make payments on land, operate the farm and gain the ability to become sustainable. We urge that the 2023 Farm Bill authorize such a loan structure to afford producers a chance to build equity, while assuring they can cash flow their operation, and cover loan payments for farm ownership.
- Smaller scale operating loans are not as attractive to other lenders, nor are real estate loans that keep funds tied up for long periods of time. However, because USDA holds the land as collateral for real estate loans, these loans result in a positive funds balance for the Federal Government. We strongly recommend

³https://www.researchgate.net/publication/344021201_Taking_Goldschmidt_to_the_Woods_Timberland_Ownership_and_Quality_of_Life_in_Alabama.

that FSA expand lending and allow more flexible terms, including authorizing real estate loan terms for up to 40 years.

- Family scale producers, including young and historically underserved producers should not be forced to graduate from FSA agriculture credit. Within certain limits, Congress should provide clear authority for these producers access affordable credit from FSA they are not getting from other lenders and to stay with FSA as their lender if they so choose.
- Congress should permanently waive the prohibition on refinancing of other debt with FSA Direct Loans and FSA Farm Ownership Loans and remove the eligibility restriction for new FSA loans based on past debt write-down or other loss to the agency.
- Land is in short supply, and it is rapidly sold often before a new farmers can navigate the lending process. We strongly support the recommendation of National Young Farmers Association that FSA be authorized to pre-qualify them for loans.
 - TA from trusted CBO's is incredibly important.
- Congress should review and adjust or eliminate the requirement for 3 years of experience requirement to protect from abuses, but also to open new opportunities for producers. Farmers should be able to qualify with mentorship from a working farmer.
- At present, the nation's farmworkers form a large pool of farmers with a deep interest in accessing land and entering farming as a profession. The next farm bill should recognize their skills, experience, and importance to expanding the next generation of producers and adopt policies that incentive and support their goal to enter agriculture.
- Congress should continue funding and expand support for the heirs' property relending fund and examine proposals to strengthen it.
- Congress should expand authority for FSA to accept alternate forms of documentation to enable operators farming on land lacking a clear legal title due to heirs' property issues to receive farm numbers from USDA Farm Service Agency (FSA) and thereby qualify to participate in additional USDA farm and credit program beyond conservation programs and including microloans for farm operating.
- The next farm bill should strengthen checks and balances, including civil penalties to root out conflicts of interest, unfair appraisals and other practices that serve to weaken the ability of producers to retain their land, run a successful and resilient farm operations, and contribute to the local economy.
- At a time when over a million families have lost members in the pandemic, Congress should seek a report on how these losses have affect farm ownership and operators. The next farm bill should include incentives for borrowers and all farmers to adopt wills and succession plans for their farms.
- **Credit Issues and Protecting Distressed Farmers who are Still Operational**—USDA should develop a plan for standing disaster program that automatically goes into effect in the face of emergencies. USDA should have authority to extend as far as possible a moratorium on acceleration, graduation, and foreclosure for duration of the pandemic and economic recovery.

We also further endorse the proposals in the *Top Priorities for COVID-19 C4 Response Legislation* from the Native Farm Bill Coalition, and recommend the Committee provide statutory authority for use in future disasters that would allow FSA to

 - Immediately and automatically defer of all FSA loan principal due for the current production years and extend all loans for 2 years.
 - Offer payments to any lenders if they reduce the interest rate of current loans by 2% and offer the same reduced loan payments and extensions to their borrowers; and
 - Allows the use of FSA Farm Ownership loans to refinance real estate and other debt to aid in recovery from this crisis.

Additional Recommendations

Equitable Relief (Sec. 5304 of Public Law 115-334)—Having made a compelling argument to the U.S. Congress during the 2018 Farm Bill debate, the House and Senate Agriculture Conference Committee, responded proactively to provide a provision of “equitable relief” for farm loan borrowers in those circumstances where an FSA farm loan employee makes a mistake—knowingly or unknowingly—and that

mistake causes a borrower to be in noncompliance on a USDA direct loan. Section 5304 of the 2018 Farm Bill conference report gives the Secretary of Agriculture the authority to offer a farm loan borrower a provision of “equitable relief” when a decision of a farm loan officer causes the borrower to be out of compliance with the loan program. Noncompliance with a loan term or provision can lead to default, acceleration, and foreclosure. Lender mistakes (See deceptive practices **12 U.S.C. Section 5531(d)**) whether intentional or not will cause economic damage to farm business operations. We mention the presence of “equitable relief” in Section 5304 to highlight the existence of irregular lending practices having a flavor of mistake or fraud.

We have called on USDA to assure the Equitable Relief provision of the 2018 Farm Bill are immediately and fully implemented with clear directives in handbooks to field offices. The intent of this provision is to protect farmers from adverse action in cases where errors were made on the part of FSA offices. In the time of extreme stress on both producers and FSA and other USDA field office staff, this protection is critical. Every effort should be made to help farmers and ranchers hold onto their land and have the economic base they need to build back better both their farms and the economic underpinnings of their communities.

However, Congress in Section 5304 did not require regular reporting on incidences when Equitable Relief needed to be applied to correct lending mistakes. The statute must be amended to require at least an annual report to Congress on the implementation of equitable relief.

Emergency Loans: Modernizations and Enhancements to Farmer Eligibility—The 2018 Farm Bill language allows emergency loans to farmers even if a farmer has been previously granted debt write down. Prior to the passage of the 2018 Farm Bill, a farmer cannot receive a USDA “Emergency Loan” if at any time after 1996 the farmer participated in a USDA Farm Service Agency primary loan servicing agreement that included debt write down or debt forgiveness.

The frequent implementation of the debt “write-down” rule has an undue negative impact on socially disadvantaged in dire need of emergency loan. The 2018 natural disasters in North Carolina and California demanded modernization and enhancements in emergency loan programs. Indeed, farmers encounter multiple disasters that coincide with crop losses caused by environmental degradation, or low farm gate income caused by a global trade disruption.

The 2018 language amends section 373(b)(2)(B) to exempt write-downs and restructurings under section 353 from what is considered “debt forgiveness” for the purposes of applying the debt forgiveness loan eligibility limitations. (**Section 5307**).

We have recommended that the Secretary take a dual approach to speedily implement emergency loan eligibility. First, the Secretary should immediately issue a proposed rule to amend 7 CFR 764.352(b) which governs emergency loan eligibility requirements. Secondly, we have recommended that the FSA handbook identified as 3-FLP (Rev. 2) be amended at Page 10.1 to 10.2 to inform field staff and farmers and ranchers that a previous direct or guarantee loan write down is no longer a bar that prohibits a future application for an emergency loan.

The Secretary should further make clear that emergency loan funds can be used to pay off or replace automobiles or higher interest credit cards that were frequently used prior to the disaster designation to finance farm operations. So long as otherwise permissible, the Secretary should further remove prohibitions for direct emergency loans in scenarios where farm loan borrowers have graduated from direct farm loan program with a history of a guaranteed loan loss claim paid by FSA to a guaranteed lender.

This Committee should assure full implementation of this and all other authorities in the 2018 Farm Bill, and to find areas where gaps in authority still require additional statutory authority.

Addressing Known Discrimination in the Farm Loan System

Congress has recognized some of the challenges SDFR face with respect to fairness in loan making and loan servicing. In response, certain statutes require the USDA to collect data on how loans made by race, gender and ethnic, and to establish target participation rates as goals in each county for making loans to socially disadvantaged farmers and ranchers in programs that make direct loans or that guarantee loans made by private lenders. However, USDA has not made this limited data which includes only numbers of loan applied for, made and denied to the county level easily available to the public. The data collected is much less comprehensive than proposed in this rule.

The data collection and targeting of agricultural loans to SDFRs is a method of collecting data on loan making but does nothing to collect data on loan servicing, an action covered by the ECOA. In our long experience in working with producers

on securing thousands of loans and submitting thousands of discriminations claims on their behalf, we have found that loan servicing is where most of the discrimination occurs with respect to farm loans. **See GAO Report July 2019 at page 1 to 2. See ECOA Regulation B, 12 CFR 1002.2(n)** (*Discrimination against an applicant means to treat an applicant less favorable than other applicants*).

The follow section is an excerpt from the comments of the Rural Coalition to the Consumer Financial Protection Bureau on data in lending. The Committee should consider how authorities for accountability by CFPB, and USDA can be best connected and used by this Committee to assure Fair Lending.

Under regulation B, rules designed to implement the Equal Credit Opportunity U.S.D.A., FSA like all lenders, is prohibited from discrimination in loan servicing. **See 12 CFR 1002.2(n)**. Nevertheless, some farmers face serious discriminatory loan transactions designed to end in foreclosure and business operations. The known discrimination takes on many different forms. Producers may face additional collateral requirements and the need to demonstrate their value. Appraisers in a small rural community may be more generous or less stringent with some farmers than with others and may also have inside information or close relationships with FSA or bank staff that could influence appraisals in a way that benefits some producers over others. In many instances, the agricultural lender does not realize that certain transactions are discriminatory by nature and design. The problem is that minority farmers most often carry the burdens of discriminatory farm loan transactions. Farmer related small business data will serve as an educational tool for agricultural lenders who knowingly and unknowingly carry on patterns and practices of farm loan discrimination that have disparate impacts or disparate treatments on the operations of minority farmers. There discriminatory actions violate the following provisions of Regulation B of the Equal Credit Opportunity Act. **Farm Loan Data Collection—Prohibited Basis—12 CFR 1002.2(z)**: “Prohibited basis means race, color, religion, national origin, sex, marital status, or age (provided that the applicant has the capacity to enter into a binding contract); the fact that all or part of the applicant’s income derives from any public assistance program; or the fact that the applicant has in good faith exercised any right under the Consumer Credit Protection Act or any state law upon which an exemption has been granted by the Bureau.” **12 CFR 1002.2(z)**.

Farm Loan Data Collection—Prohibited Basis. 12 CFR 1002.4(a). Discrimination. “A creditor shall not discriminate against an applicant on a prohibited basis regarding any aspect of a credit transaction.” **12 CFR 1002.4(a)**. The phrase “any aspect of a credit transaction” includes farm loan servicing and should be understood as such. As mentioned earlier, farm loan servicing is the state of the loan transaction where minority farmers endure the most discriminatory terms and conditions. Particularly, loan servicing during a disaster related request places the farmer in a position that requires the farmer to accept the burdensome terms and conditions or face foreclosure. Some renegade farm lenders push farmers into unlawful farm foreclosure after the farmer complains verbally or in writing about consumer rights violations. This practice must be recorded on a consistent bases to increase Department of Justice investigations and civil actions against wrongdoers. According to **15 U.S.C. 1691(a)(3) and Regulation B, 12 CFR 1002.2(z)** a farm loan lender may not discriminate against an applicant because the applicant has in good faith exercised his or her rights under various Federal consumer protection laws. **See 15 U.S.C. 1691(a)(3) and Regulation B, 12 CFR 1002.2(z)**. The final language of the proposed CFPB rule must include data collection consumer whistleblower complaints so that retaliation against farmers can be eliminated through strong enforcement actions.

Farm Loan Data Collection—Prohibited Basis. 12 CFR 1002.4(b). Discouragement. “A creditor shall not make any oral or written statement, in advertising or otherwise, to applicants or prospective applicants that would discourage on a prohibited basis a reasonable person from making or pursuing an application.” **12 CFR 1002.4(b)**. The undersigned organization are aware of discriminatory terms and conditions that relate to oral and written statements that discourage minority farmers from making loan applications or requesting loan servicing. For example, young minority farmers are told to accept the same discriminatory terms and conditions: **(a)** loan approval based on mandatory acceptance of same harsh terms placed on farm loans of parents more than 20 years in the past; **(b)** loan approval based on buying farm equipment from the lenders family member; and **(c)** loan servicing based on farmer making a private, personal loan to the loan officer, **(d)** completion of a loan application of

beginning farmer returning to take up the operation of the farm he grew up on when ownership was transferred to him is made contingent on him providing a certified lease to allow a neighboring farmer to collect farm benefits on a crop grown on the beginning farmer's land, despite the fact the younger farmer had sent a cease and desist order to his neighbor—and he is also told not to report this situation to superiors as it might “get the previous CED in trouble”, (e) a SDFR farmer seeks an operating loan to cover costs of spring planting with a plan that includes specific application of treatments to improve his land, but the loan is delayed until it is too late for these treatments to be effective but he is required by the loan agreement to incur these costs, (f) a farmer seeks the release of lien on his farm in order to secure a loan from a private lender, but FSA suddenly discovers a \$30,000 value to the 100 year old barn he is seeking to remove and replace with a facility to process meat at the beginning of the pandemic, despite the fact that no value for the old barn had been reflected in the appraisal for the original loan, (g) a military veteran who grew up on a farm and participated in the operation returns from a deployment and seeks a loan to start farming again. The local office staff member looks at his application in his folder, then throws the folder at his head and tells him not to return “until he can demonstrate 3 years of experience.” Such practices must end. Data collection is a proven way to document and address such discouragement in loan making, discouragement that often is at the core of disparate treatment based on race and ethnicity.

What remains unclear is what tools USDA has, needs, and will use to hold this and other offices accountable for such inequitable and patently fraudulent practices. ***The failure to do so in any tangible way is in our view the single biggest impediment to ever achieving equity and accountability in service to all producers.***

Our members have experienced many such problems on a routine basis. At present farmers have options to file an appeal of a decision to the National Appeals Division, to file a complaint to the office of Civil Rights and report of fraud to the Inspector General. There is a lack of clear guidance to help producers know which system to use to resolve issues that they are facing.

We believe Congress should consider establishment of a process with specific contact information designed to immediately address and correct problems with program requirements, and internet access, but also related to service delivery, problems in program access, appraisals, especially on the attitudes of USDA workers, and not only the location of USDA offices but of the failure of USDA field staff to let farmers know how and when they can be reached.

USDA needs to routinely measure outcomes in program participation as part of a proactive assessment of the operation of its county offices. But it should move beyond data on the application and participation in programs by race, gender, and ethnicity to the county level. It should also measure additional metrics related to its lending programs—specifically the month in which the farmer first contacts the office about a loan, and the month the loan is disbursed. The delays in loan making and slow walking the provision of benefits contributes is a continual factor in the precarious financial position of many producers whose cases we have reviewed.

USDA should also routinely measure the highest and medium number of programs

USDA should use comparative data from NASS and from the U.S. Census to assess land tenure, land concentration, broadband access, and factors including poverty and health disparities.

Receipt for Service. The USDA National Appeals Division recognizes that FSA's employees have a greater understanding of program requirements. Administrative Law Judges recognize and understand that “while a program participant is responsible for exercising due diligence in understanding the requirements of a program, NAD case decisions recognized that it is not reasonable to expect a program participant to have greater understanding of program requirements than FSA's own employees.[”] This is why receipt for service is so critical to understand what farmers are told by FSA staff. It is also important to note that the receipt for service reveals what the farmer was not told in terms of program benefits and services.

This Committee should review the use of the Receipt for Service and adopt new measure to assure compliance by all local offices that serve farmers.

Ensure Fair Access to USDA for Producers Farming on Heirs Property (FSA, NRCS, NASS)

Sections 12615, 5104 and 12607 of the 2018 Farm Bill Conference Report are intended to assure USDA affords fair access to its programs for farmers and ranchers who operate farms on “heirs’ property.” The final language ensures that more farm-

ers—especially African American farmers and farmers of color operating on land with undivided interests—can finally access critical USDA programs that enable them to

Tenure, Ownership, and Transition of Agricultural Land (TOTAL) Survey—\$15 million

Land access continues to be the biggest challenge facing beginning, current, and aspiring young farmers. Without secure land tenure, farmers are unable to invest in on-farm infrastructure or conservation practices critical to building soil quality, financial equity, and successful businesses. Land loss is also a major challenge for Black, Indigenous, and people of color (BIPOC) farmers who do not have clear titles to their land because it was passed down without a formal will; the land is then subject to fractured ownership among many relatives, becoming what is known as heirs' property.

In the 2018 Farm Bill, Congress tasked USDA with completing an updated TOTAL Survey, the results of which will provide comprehensive data on farmland ownership, tenure, transition, and entry of beginning and BIPOC farmers and ranchers as a follow-on to the Census of Agriculture (Sec. 12607). Further, the 2018 Farm Bill required that this survey include data collection on the extent of heirs' property so that the full extent of this land tenure challenge can be understood. Access to this information is crucial to better understanding the policies and trends that lead to secure land tenure and thriving farm businesses.

Unfortunately, this vital data gathering has not been funded since the 2018 Farm Bill was passed. Given that it requires surveying landowners who are not as well connected to the USDA—including non-farming landowners and heirs' property owners—it requires dedicated funding this year to make up for the lapses over the last two funding cycles.

To ensure that the USDA can produce a robust analysis leading to better access and more secure land tenure for young and historically underserved farmers alike, we urge this Committee to assure that Congress fund the survey for FY 2023 at the level of \$15 million (the total authorized amount), and that you increase the investment for this important study in the 2023 Farm Bill.

Current and comprehensive data is critically important to understanding the challenges farmers face related to land access and transition. We urge policymakers to ensure the data collection components of the 2018 Farm Bill are fully implemented and to continue to invest in recurring data collection, reporting, and research on farmland tenure, ownership, and transition to better understand the large-scale trends and challenges related to land access for beginning and historically underserved producers.

We [also] urge this Committee to assure this Land Tenure is expeditiously conducted because of the growing volatility in land ownership and operations, and the potential impacts to farmers and ranchers, rural communities and the entire farm and food sector. We have seen volatility in land values impact the entire agriculture lending system in the past in years past, including 1987, and we believe it is of critical importance now to understand and mitigate these impacts as we enter the 2023 Farm Bill debate.

We will be providing additional recommendations on the issues covered in the testimony. We pledge to work with you in any way we can to support the adoption of landmark 2023 Farm Bill.

The CHAIRMAN. Thank you. Thank you very much, Mr. Tillman. And now, Mr. Brown, please begin when you are ready.

STATEMENT OF HON. ADAM BROWN, OWNER, B&B FARMS, DECATUR, IL; ON BEHALF OF ILLINOIS FARM BUREAU

Mr. BROWN. Chairman Scott, Ranking Member Thompson, other Members of the Committee, I want to begin by thanking you on this Committee for all that you have done for America's farmers and ranchers getting through the difficult times of the past several years. The farm economy has bent, but it has not broken through volatile commodity prices, a pandemic, and now a resulting supply chain and inflation crisis that are driving up input prices for production and increasing the cost of goods across the economy.

My name is Adam Brown. I am a sixth-generation family farmer from central Illinois, where I raise 1,100 acres of corn and soybeans

on some of the blackest soil in the world. Our ancestors broke sod in the 1860s to provide for their family, who had pioneered West from New Hampshire. The land proved to provide great food, a home, and way of life for the family. The care and conservation of that land began then and has persisted through multiple generations and continues today.

At the end of 2017, my grandpa passed away as I was in the process of buying my uncle's share and preparing to buy my dad's share in the operation. Cash flow and debt loads were strained by the passing of my grandpa, as I would need to purchase several hundred acres from the many heirs of my grandparents' estate. The USDA FSA's Direct Farm Ownership Joint Financing Loan Program was a solid fit for this transaction. As my lender, Farm Credit Illinois, also had stellar young, beginning, and small farm real estate offerings to make the 50/50 split a workable solution for my situation. Still, to get through the cash crunch, I had to rely on participation in other USDA programs like the NRCS's Conservation Stewardship Program and FSA's Marketing Assistance Loan Program.

After the successful acquisition of the other heirs' portions of my grandparents' estate, I had to change the formation of my business from a partnership to a sole proprietorship, which resulted in changes to USDA paperwork. The unwillingness of NRCS to review my application to CSP because of an administrative paperwork error remains a singular source of frustration and speaks to the inefficiencies of government that oftentimes prevent new and beginning farmers from gaining access to the programs they need to stay afloat until they have their feet under them.

After a year of being forced to the sidelines, however, I finally re-qualified for the conservation program. And as a result, I expanded my use of no-till practices and, for the first time, created a pollinator habitat and utilized cover crops on my farm.

Government programs certainly can't make up for every cash flow problem a farmer may face. Tight margins over the last few years have forced us to find ways to tighten our budget to make ends meet, including the liquidation of nonessential farm equipment, the most painful sale being that of the first tractor that my dad ever rode on, a 1950 Ford Ferguson TE20, which brought in \$1,480. And while that was a difficult and emotional step to take, the survival of my farm for the next generation is my top priority, just like it was for the generation that passed it on to me.

Even those tough business decisions were not enough. I still needed some help to keep things running. And the loan programs that were available for young, beginning, and underserved producers came through for me in one of the most difficult and stressful times of my life.

I found ways to pay it forward as I served on the most recent USDA Advisory Committee on Beginning Farmers and Ranchers, where I led a workgroup dedicated to providing recommendations to USDA for improvements to existing programs on behalf of new and beginning farmers and ranchers. These recommendations include access to capital, access to land, tools for transition, information, and customer service, as well as a revised and aligned definition of a *beginning farmer* and *rancher*.

According to FSA, there has been no carryover of approved unfunded loans since Fiscal Year 2018. Therefore, heading into discussions for the next farm bill, the focus should be on ensuring that everyone that potentially qualifies for a loan under the program has equal access to it and that both the farm operating and farm ownership loan limits are keeping pace with the rising costs of farm equipment and farm real estate.

I thank you again for the opportunity to share my story with you today. I look forward to any questions you may have.

[The prepared statement of Mr. Brown follows:]

PREPARED STATEMENT OF HON. ADAM BROWN, OWNER, B&B FARMS, DECATUR, IL;
ON BEHALF OF ILLINOIS FARM BUREAU

Chairman Scott, Ranking Member Thompson, and other Members of the Committee, I want to begin by thanking you for everything this Committee has done to help America's farmers and ranchers get through such a difficult time. The Farm Economy has bent, but not broken, through volatile commodity prices, a pandemic, and now a resulting supply chain and inflation crisis that are driving up input prices for production and increasing the costs of goods across the economy.

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At the end of 2017, my grandpa passed away as I was in the process of buying my uncle's share and preparing to buy my dad's share in the operation. Cash flow and debt loads were strained by the passing of my grandpa, as I would need to purchase several hundred acres from the many heirs of my grandparents' estate. The United States Department of Agriculture (USDA) Farm Service Agency's (FSA) Direct Farm Ownership Joint Financing Loan program was a solid fit for this transaction, as my lender Farm Credit Illinois also had stellar young, beginning, and small farm real estate offerings to make the 50-50% split a workable solution for my situation.

Still, to get through the cash crunch, I had to rely on participation in other USDA programs like the Natural Resources Conservation Service's (NRCS) Conservation Stewardship Program (CSP) and FSA's Marketing Assistance Loan program. After the successful acquisition of the other heirs' portions of my grandparents' estate, I had to change the formation of my business from a partnership to a sole proprietorship, which resulted in changes to USDA paperwork. The unwillingness of NRCS to review my application to CSP because of an administrative paperwork error remains a singular source of frustration and speaks to the inefficiencies of government that can oftentimes prevent new and beginning farmers from gaining access to the programs they need to stay afloat until they have gotten their feet under them. After a year of being forced to the sidelines, however, I finally re-qualified for the Conservation program. And as a result, I expanded my use of no-till practices—and for the first time—created a pollinator habitat and utilized cover crops on my farm.

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customer service, as well as a revised and aligned definition of a beginning farmer and rancher.

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I thank you for the opportunity to share my story with you today, and I look forward to any questions you may have.

The CHAIRMAN. Thank you very much. I thank each of you for your excellent testimonies. They were very, very good.

And now at this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow us to get as many questions in. And also, Members, we are on a tight schedule, so I am going to hold strict discipline to your 5 minutes because we will soon have votes on the floor. And we would like to make sure we are able to conclude our hearing before the noon hour. I appreciate your cooperation in this.

And of course, as I always say, please keep your microphones muted until you are recognized in order to minimize background noise.

And my first question will go to you, Mr. Kauffman. You mentioned that the global uncertainties such as the war in Ukraine may impact our financial stability, going forward, and that is an excellent point. So if the war continues into 2023, what financial impact will this have on our agriculture sector?

Dr. KAUFFMAN. Well, thank you for the question. And I guess I would start by recognizing that the war has had a pretty direct impact on the price of commodities but also the price of inputs, specifically fertilizer but also fuel, that has created an environment of uncertainty and elevated volatility in markets. It has made decision-making a bit more challenging. It has elevated the need for financing in some cases. It has also elevated the sense of concern among lenders just given the push on profit margins from some of those increases in costs.

The CHAIRMAN. And tell me, what suggestions, what recommendations could you share with this Committee as to what you feel we need to do?

Dr. KAUFFMAN. I would suggest that it starts with disciplined risk management strategies on behalf of producers. That might include marketing strategies. It might include leveraging the programs that are there that some others on the panel have already discussed. It would also include interacting directly with lenders to understand the position of lenders and some of the things that they might require to ensure that the capital is there to move forward.

The CHAIRMAN. And would you not agree that—I was absolutely stunned to find out—and many people did not know this until I mentioned to our Chairman of our Federal Reserve and my Financial Services Committee, that right now, Russia controls and produces 66 percent of all the fertilizer. So my question to you, how do you feel we might be able to address this? We have some funding going forward in another bill, but I would like to hear from you. What do you think we can do? Can we stimulate more fertilizer production and growing right here at home?

Dr. KAUFFMAN. There may be some possibilities of ways to increase fertilizer production, but it could take some time to do that. As I mentioned earlier, I think having some of the discussions between those entities, those that might be involved with securing those inputs could be useful. I know in many cases farmers struggle not just with the cost of those inputs but even just the availability and how to navigate some of the systems. I think having processes in place that might clarify some of those could be useful.

The CHAIRMAN. Yes, I would certainly agree with you.

Now, Ms. Davy, you know and said that in your testimony that Black farmers have historically been denied access to credit. Black-owned farms are often less profitable than White-owned farms and less able to obtain Federal payments that support their profitability. We are addressing these. But let me ask you, would you share with us what you think are some of the most effective ways in which we can break this cycle, Ms. Davy?

Ms. DAVY. Thank you for the question. I think that we do need and would benefit from a more robust civil rights process at the local levels. That is where the majority of the complaints of perceived and actual discrimination are taking place. So one recommendation could be the development of a local civil rights ombudsman that conduct annual civil rights reviews, something that has not consistently taken place, despite the acknowledgement of the discrimination that was happening at the local level through the class-action discrimination lawsuits.

The CHAIRMAN. Well, thank you. And we are addressing that, and we will continue to do so.

And now with that, I will now turn to the distinguished gentleman from Pennsylvania, my friend, Ranking Member Thompson is now recognized.

Mr. THOMPSON. Well, thank you, Mr. Chairman. First of all, Mr. Brown, I commend you for all that you have done in just 5 years of farming. Eleven hundred acres of prime Illinois farm ground isn't cheap. And it is a true success story that you were able to utilize these programs in the way that they were intended, to transition the farm from your grandfather, father, and uncle.

In your experience with several different credit programs, what do you believe was the most successful? And did you have any complications or issues that we can look to address in the next farm bill?

Mr. BROWN. Thank you, Ranking Member Thompson. I would say that the most successful program was the Joint Farm Ownership Loan Program where I was able to establish real estate in my name early on in my operation, and that was through joint financing between the FSA's program and Farm Credit Illinois, which has a stellar what we call FreshRoots Young & Beginning Farmers program. Giving access to capital for young, beginning, and small farmers is an initiative obviously near and dear to my heart, but I want to see other farmers in my same boat succeed. And I don't think I am uncommon in the approach that I have taken and the access to capital for young farmers just starting out will continue to be an issue down the road. So I would ask that that program be extended and that the caps on that program be raised as the

costs of our inputs, and the cost of our land continue to increase as well.

I would mention that my troubles transitioning through the CSP program, the Conservation Stewardship Program, were incredibly frustrating as we changed the structure of our farm from a partnership to a sole proprietorship. And I think that stumbling block continues to be an issue for farms as they transition from one generation to the next.

Also, I think it is important that the USDA acknowledge the Advisory Council for beginning farmers and ranchers. We had a lot of proposals that have not been acted upon by the USDA at this point. So thank you.

Mr. THOMPSON. Well, thank you. One of the issues I hear, the most reoccurring question I heard—and it was actually a phone call just 2 days ago, most recently, from new and beginning farmers and, quite frankly, seasoned farmers that are struggling knowing what to do with their farmland, the transition is the issue of solar fields. In the rush both at the Federal and state level for alternative green energy, we have consistently had very generous subsidies and tax breaks that has driven up the price of leasing ground. And for young and beginning that is kind of where normally folks will start with trying to lease off of larger tracts of lands from other farmers, and it has pushed the value of this acreage, these leases for solar well—at least in my experience the people I am talking with—well beyond what typically you would be able to lease for agriculture. I am not opposed to solar obviously. I would sooner see it on marginal lands, lands that are maybe environmentally sensitive *versus* fertile production lands. But I heard that on a call that I did initially with young agriculture professionals throughout the Commonwealth of Pennsylvania, and it has been a consistent theme.

So in your experiences, and this is for all witnesses, have you heard about this issue at all? Is this something that is in the different states represented here?

Dr. KAUFFMAN. I can start by offering just one comment, and that is to agree that what we have heard is that there are certain aspects of land that do add value to that land. It might be by way of solar farm, it could be wind operations, it could be other mineral rights. And that has been going on for some time. What that has led to is obviously a larger equity for those that own the land but, perhaps to your point, raising the costs for those that are trying to operate. And so it does make it a little bit more challenging than for those trying to enter, just given the high cost of entry.

Mr. THOMPSON. Thank you, Dr. Kauffman. Just real quickly, Dr. Kauffman, what is the near-term threat to credit conditions for farmers? Is it high interest rates, weakening commodity markets, lower land values, or something else?

Dr. KAUFFMAN. I think in the near-term it is the high input costs combined with a potential for reductions in commodity prices. For this year, much of that environment looks pretty sound because many farmers do make sales in advance and they have already secured their inputs in previous months. The concern might potentially be moving to the end of this year as they are securing those inputs for next year, and there could be lower profit margins.

Mr. THOMPSON. Very good, thank you.

The CHAIRMAN. Thank you very much.

And now the gentleman from Massachusetts, Mr. McGovern, who is also the Chairman of our House Committee on Rules, is now recognized for 5 minutes.

Mr. MCGOVERN. Well, thank you to all of our witnesses. And I want to thank the Chairman for convening this important hearing. I think it is critical that we hear directly from farmers when systems that are supposed to empower them aren't working the way that they should be.

And I will just quickly say to my colleagues that I think we need to be prepared to be responsive to what we have heard today.

Ms. Asherman, I want to make sure I get this right. When I was reading your testimony, did you say you grew up in Massachusetts?

Ms. ASHERMAN. Yes, I was born and raised in Boston.

Mr. MCGOVERN. Well, maybe that is why I thought you were particularly compelling today. But in any event, I want to congratulate you on all your successes, and we are certainly proud of the work that you are doing. But what struck me during your testimony was how much your story reminded me of stories that I have heard from farmers and would-be farmers in my district. They are interested in getting away from traditional row crops and opting for sustainable practices with the goal of contributing to local food systems. Often, they are the ones helping to build local food systems from the ground up.

But just as you detailed, translating the desire to start farming into being launched is a daunting task. So I have a two-part question for you. First, could you please elaborate on some of the hurdles that you face while seeking a loan from FSA? And do you feel that FSA and other lenders sufficiently value your type of operation in the overall farm economy?

Ms. ASHERMAN. Thank you for the question. I would say, I mean, the initial hurdle for myself was that I had no experience or understanding on how to go into any type of ownership process. My dad sort of explained to me, most people just buy one home in their life, and that is a pretty big deal. So just navigating the language, the paperwork was its own initial challenge, and I think that was really made more difficult by the fact that the language that my loan officers—their expectation of what a farm would look like, what it would gross per acre, what it could produce per acre, was just in a totally different realm from what my understanding was because they were really talking about a different kind of farming.

And that sort of goes to your second part of the question, which is just there are very different kinds of farming practices out there, and if the loan officers on the ground are not open or well-versed and familiar in the kind of operation that you are running, they are not only going to struggle to make sense out of your supporting documents but they, I feel like, often do undervalue the type of farming that you do. And I definitely feel like a minority in my area in terms of the type of farming that I am doing.

Mr. MCGOVERN. Well, as a follow-up, let me just say, I am inspired by the work you are doing to build a more just food system and one that works for existing farmers and aspiring farmers while

making healthy food accessible to every community. So how can expanding access to credit for farmers like you help with that vision?

Ms. ASHERMAN. Well, I am a big proponent of the local economy. I absolutely have respect for larger farmers that are shipping international and growing on just a totally different scale than what I am doing. I feel like local food economies are the most resilient food economies. I feel like I saw this during the pandemic when Walmart was running out of food and we were still setting up at the farmers' market. I think that smaller farms that are selling within a more narrow radius are keeping that money in the local economy better. I think that we are employing people in our communities who are staying in our communities. And I just believe in the power of smaller farms, producers of our domestic food.

Mr. MCGOVERN. Well, I thank you for your answer, and I share your vision here. And I want to thank the entire panel of witnesses.

And Mr. Chairman, I will yield back my time.

The CHAIRMAN. Thank you, Mr. McGovern.

And now the gentleman from Georgia, Mr. Austin Scott, is now recognized for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And I want to mention with regard to the FSA loan process, one of the most successful farmers I know in Georgia who I have had a relationship with for a long time, called me. He was trying to help his son get started. And after about a year, he finally went to the local bank and just cosigned the note with his son. And his comment to me was nobody who could access credit anywhere else would go through the process at FSA. So I am sure that the loan process is flawed. I think we need to work on that.

I do want to mention one thing, and I want to say this cautiously, but I do know we are trying to make progress with this. And this really goes, I guess, very quickly to Ms. Davy, Mr. Tillman. But one of the key issues in my area in talking with professionals at Fort Valley State is the heirs-related issue and no clear title to property. And so when there is timber on the property, the timber companies are scared to contract to cut the timber because it is the heirs-related issue and no clear title. It is hard for a bank to loan money without clear title. I know we are doing some USDA—there are some USDA initiatives with that right now.

But I will leave it with you, Mr. Tillman. I am from Georgia. Is the heirs-related issue with minority farmers—how big of an issue is that in Oklahoma where you are from, and how much progress is being made on resolving that issue?

Mr. TILLMAN. It is most definitely a problem. When you have a parcel of land and you have 25 or 30 heirs to it, that is kind of a pickle of a mess. And trying to sort through things of that nature is quite expensive and basically very hard to deal with. And we are basically doing a lot of heir property workshops and development of wills and things of that nature to make it that much easier for the next generation, because all of that basically occurs when the unexpected happens, and then you got that challenge there of trying to divide up everything equally among all the heirs.

Mr. AUSTIN SCOTT of Georgia. David and I have been good friends for a long time, and we have some pretty heated conversa-

tions on some of the issues revolving around race and agriculture, but this is one of the issues that I do—this clearly disproportionately impacts minority farmers, and it is one of the issues that needs to be resolved for everybody. And so I look forward to working to help continue to resolve that because if you don't have clear title, you can't get the loan. That is the bottom line.

Mr. TILLMAN. Right.

Mr. AUSTIN SCOTT of Georgia. And I do think through Fort Valley State and some other institutions we can work to help people. It won't be perfect, but it will be better than it is.

I do want to mention this, Ms. Asherman. You hit on this. Ninety percent of our food supply in this country comes from about 12 percent of the farmers. We have to have large-production agriculture. One of the things I see that is so difficult for our beginning, young, and small farmers is it costs more when you are a beginning, young, and small farmer. And so what you get if you are a big farmer might pay the bills, it might not right now, but it won't pay the bills that same ratio if you are a small farmer. How far do you have to travel to get to a farmers' market, Ms. Asherman? Ms. Asherman?

The CHAIRMAN. You may need to unmute, Ms. Asherman.

Ms. ASHERMAN. I am sorry, my internet is extremely slow. I was trying to unmute. I drive 2 hours to my major market, and I also sell on the farm and a half an hour away [inaudible] market.

Mr. AUSTIN SCOTT of Georgia. This is one of the issues, Mr. Chairman. If you are a beginning, young, and a small farmer and you are growing the way Ms. Asherman is, you have to have access to markets to sell your products. And as our farmers' markets have closed, just like as our smaller meatpacking facilities have closed throughout Georgia, it has made it that much more difficult for our beginning, young, and small farmers. And candidly, it has given more control of our food supply over to the largest of the corporations.

With that, I know my time has expired, and I apologize for your internet service, Ms. Asherman. I am hopeful that your EMC will be delivering 1 gigabyte to you shortly.

[Information supplied by Ms. Asherman is located on p. 1369.]

The CHAIRMAN. Thank you, Mr. Scott.

And now the gentlelady from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Mr. Chairman. Thank you also to the Ranking Member for hosting the hearing. This is an important topic to our witnesses. Thank you for your testimony. It is timely.

There is a new generation of farmers in America. They are different from older generations, younger, more diverse, and choose to grow other crops. An increasing number of them are women. At the same time, farmland is transitioning to new hands, and while the 2018 Farm Bill made strides in programming and microloans, there are still major gaps in the Federal agricultural credit system.

Ms. Davy, your testimony briefly mentions these gaps, especially for Black and minority farmers. Farm Service Agency loans require 150 percent equity on purchase loans, require copious amounts of paperwork, and they take months to process. So what should Con-

gress do to simplify the application process for young and socially disadvantaged farmers?

Ms. DAVY. Thank you for the question. Congress has already done a lot. And with regard to the previous question that was asked with regard to the heir property issue, the most recent farm bill, the 2018 Farm Bill, Congress already acknowledged the need for services for heirs property landowners, and authorized the Heir Property Relending Program. And so I think that the microloan program is another example of the intentionality that Congress has brought to addressing these communities and this issue.

I think that the loan application process itself has had a lack of transparency. There are times when farmers are telling us that they are receiving requests for duplicitous information. And in the example of the farmer that I spoke with that was told that the farm home was too nice for the property, when he asked his FSA agent to explain what the house had to be like or look like to conform with their expectations of what a farmhouse should look like, there was never an explanation given. There has never been really any clear, transparent guidelines on what pre-approval or what an approved loan would look like. And so there needs to be assistance in addressing the information of what is required up-front, as well as a process that is streamlined in many ways similar to the reduced paperwork burden of the microloan process, but I definitely think transparency.

Ms. ADAMS. Thank you. Thank you, ma'am. Okay. So let me ask about ag's government-sponsored enterprise, GSE farm credit. Congress requires other GSEs to set aside their profits for grants. So should Congress mandate similar set-asides as grants for farmers? Ms. Davy?

Ms. DAVY. I am sorry—

Ms. ADAMS. Should Congress mandate similar set-asides as grants for farmers? I mean, they require other GSEs to set aside their profits for grants. So should we mandate similar set-asides as grants for farmers?

Ms. DAVY. We are grateful for the set-aside programs that exist and definitely think that any opportunities to expand set-asides that would benefit socially disadvantaged farmers and their ability to own and control their finances would be a benefit to all—

Ms. ADAMS. Great. Okay. Thank you very much. Dr. Kauffman, you mentioned that demand for farm loans is expected to rise. I was surprised to learn from Ms. Asherman that Farm Credit and Farm Service Agency loans are not reported to credit bureaus. So can you help me understand why that is and the impact it may have on farmers' ability to build credit?

Dr. KAUFFMAN. I can't speak specifically, I guess, to the reporting mechanisms. My comment was to recognize that some of the credit demands appear to be rising in conjunction with the rising input costs.

Ms. ADAMS. Okay. All right. Thank you very much. Mr. Chairman, I am going to give the 51 seconds back to you. I yield back.

The CHAIRMAN. Thank you very much, Ms. Adams.

And now the gentleman from Tennessee, Mr. DesJarlais, is recognized for 5 minutes.

Mr. DESJARLAIS. I thank the Chairman. I just have a couple of quick questions, and I was going to address those to Mr. Brown.

First, supporting the next generation of farmers is a huge priority for all Members of this Committee. If the elimination of stepped-up basis had occurred prior to your generation, how would it have impacted your ability to maintain the farm?

Mr. BROWN. Thank you for the question, Congressman. Stepped-up basis changes would be devastating for our operation. As a sixth-generation family farmer, my intent is to pass the farm on to the next generation and to take advantage of any tax breaks that are at all possible will just provide us the opportunity to feed that money back into the operation where we thrive on stewardship of our land and growing the economy in our rural town. As you know, keeping money locally is very important for us as farmers, and local towns are really struggling for us, our local bank and our local elevator. So as much of that money as we can keep in the local economy, we will.

Mr. DESJARLAIS. Okay. Second, I often find that some perceive beginning farmers and ranchers that have smaller operations or operations that are not their full-time job. Could you add some color to why this perception is wrong and the importance of beginning farmers and ranchers of all sizes, including larger operations?

Mr. BROWN. Sure. Let me say that as our operation is 1,100 acres, I would consider that small in this day and age. We have to compete with very large corporate-type farms, which have access to economies-of-scale that we can't readily compete with. So, as I mentioned in my testimony, we like to take advantage of conservation programs and continue to incentivize programs that we have done in the past and build up our soil quality and efforts to maintain a healthy community.

It is very important for me to keep a corn and soybean operation. Our conventional system is what I am used to, what I know well, and what we built our grain system around. We are currently putting up a grain bin and trying to be as efficient as possible. And if very small, niche farms are more heavily incentivized than ourselves, it puts me at a competitive disadvantage because I can't pivot as quickly as some of those operations as we continue to focus on corn and soybean operation.

Mr. DESJARLAIS. Okay. Well, Mr. Brown, thank you for being here today. And I would like to thank all the witnesses for being here for their testimony for this important hearing.

And, Mr. Chairman, I will yield back the balance of my time.

The CHAIRMAN. Thank you very much.

And now the gentlewoman from Illinois, Mrs. Bustos, who is also the Chair of the Subcommittee on General Farm Commodities and Risk Management, you are now recognized for 5 minutes. Mrs. Bustos? You may want to unmute, Mrs. Bustos.

If not, we will come back to Mrs. Bustos.

Now, we will recognize the gentlewoman from Ohio, Ms. Brown, for 5 minutes.

Ms. BROWN of Ohio. Thank you, Chairman Scott and Ranking Member Thompson, for holding this hearing.

Access to credit is one of the most important components of long-term success for young, beginning, and underserved farmers and

ranchers, and Congress must do all it can to support these farmers and ranchers. I represent the City of Cleveland, an urban area which many of my constituents live in food deserts and have limited access to fresh fruits and vegetables. Urban farming ventures offer an innovative solution to fighting food insecurity and building healthier communities.

Vice President Kauffman, thank you for joining this panel. In your role at the Federal Reserve Bank of Kansas City, you examine agriculture credit condition and farm finances. Can you please speak to the accessibility of credit to urban farmers, how they are using these loans, and whether the loans are sufficient to meet their needs?

Dr. KAUFFMAN. Well, the first thing that I would suggest I guess there is that, generally speaking, the access to credit is one where those that have the most established relationships have typically been most easily able to navigate some of the systems with credit. So that has been maybe a bit more of a challenge for some of those that are exploring niche opportunities such as those in urban locations. There are opportunities, though, for those individuals, and it seems like some of those niche opportunities have become more prominent, alongside some of the other comments about local food systems.

Ms. BROWN of Ohio. Okay. So it sounds like there are some challenges with accessibility, so if you could speak to how Congress can improve these programs to better serve urban farmers.

Dr. KAUFFMAN. I think one of those might be to recognize where there could be opportunities to, again, help with the relationship development, understanding what the programs are, understanding what the resources are, and maybe contacts that can help connect those that recognize where there are market opportunities with those lenders that may be unfamiliar with some of those opportunities but still stand at the ready to be able to provide that credit.

Ms. BROWN of Ohio. Thank you so much. Well, with that, Mr. Chairman, I will yield back the balance of my time.

The CHAIRMAN. Thank you, Ms. Brown.

And now the gentleman from Illinois, Mr. Davis, is recognized for 5 minutes.

Mr. DAVIS. Thank you, Chairman Scott. I also want to thank Ranking Member Thompson. Earlier this Congress, I introduced the Farm Credit Administration Independent Authority Act (H.R. 7768) with my colleagues Representatives Jimmy Panetta, Michelle Fischbach, Abigail Spanberger, and Angie Craig to mitigate a serious threat to the viability of the Farm Credit System from the CFPB to implement an overreaching one-size-fits-all proposed rule on small business lending data collection. The proposed rule would demand new, costly IT infrastructure, additional staff, and would ultimately make lenders guess the demographic information of a borrower in the name of fair lending if left unreported. Our bill clarifies the Farm Credit Administration as the independent regulator of the Farm Credit System and would stop the implementation of the CFPB's proposed rule as it applies to Farm Credit.

Right now, we are working to move this bill through the appropriations process, given the time-sensitive nature of this issue and the immediate harm that it would cause rural America. And I hope

that the Rules and Appropriations Committees will work with us to resolve this quickly. Farm Credit System lenders have proven to be an effective tool for rural communities, and we must preserve their independent regulatory status.

Now in the context of the conversation that we are having today on the state of credit for young, beginning, and underserved producers, this is an important issue we should be seeking to address in the immediate. On top of all the supply chain issues, increasing input costs, raging inflation, we can't also put the availability of credit on the line that will only serve to discourage individuals like each of you from seeking careers in farming and agriculture.

Now, my question, and I will start with my good friend, Representative Brown, if new and beginning farmers do not have continued access to ag-lending entities like the Farm Credit System, what could the future of your operations look like, and do you see it as a barrier to entering the field?

[Information supplied by Ms. Asherman is located on p. 1371.]

Mr. BROWN. Well, I would hate to even imagine what it would look like for us to not have Farm Credit in the mix. Farm Credit Illinois has been the steady hand in our operation through our transitioning farm, and they offer educational courses as well as through their FreshRoots Program that I noted before, breaks the interest rates on operating notes and real estate notes for young farmers. In fact, about 35 percent of new notes that come to Farm Credit Illinois are from young, beginning, and small farmers. And so we are growing the future of Illinois agriculture. Without the assistance of Farm Credit, I would be hugely concerned.

Mr. DAVIS. Well, I mean, I don't know your financial picture. I have known you a long time. I probably wouldn't lend you \$20. So, Adam, thank God we have the Farm Credit System to help operations like yours grow. And obviously I say this in jest because I have seen your operation and I have seen what a system of availability of credit from an entity like Farm Credit has been able to do for you and your family to grow your operation. So, I mean, as you mentioned, this would be a devastating blow to anyone in your situation or anyone who may be in a situation where they might not be able to get that available credit without the entity.

Mr. Tillman, would you like to address the issue of the CFPB rule that I mentioned?

Mr. TILLMAN. Well, what I see is like—and I am trying to deal with the credit issue. When a farmer basically gets a loan from FSA, he pays the loan off before a time. But he was forced into a lot of these things by the actions that were basically taken towards him as they meet and discuss where they really are. This was more of a threatening type thing for the particular farmer, so he pays it off ahead of time. Now, when he did that, not knowing that he would not be able to get a loan again like that, whereas that if somebody does some good, why should he be punished for it? So you can't get another direct loan. You graduated in other words to the other state of that particular deal.

Mr. DAVIS. Wow, thank you.

Mr. TILLMAN. And that is a point that I would really like to make, whereas like if you have done something good, why are you not able to stay with something that you are accustomed to?

Mr. DAVIS. Well, thank you for your comments, your remarks. I yield back.

The CHAIRMAN. Thank you, Mr. Davis.

And now the gentlewoman from Virginia, Ms. Spanberger, who is also the Chair of the Subcommittee on Conservation and Forestry, is recognized for 5 minutes.

Ms. SPANBERGER. Thank you so very much, Mr. Chairman. And to our witnesses, I thank you so much for your time for being with us today. And I was wondering if you could just give us—and I know that you have submitted written testimony and certainly answered many of our questions. But if you could identify one thing in the system—and I know there are many challenges, but one thing in the system that you would change and what that potential impact would be. I was wondering, if you could wave a legislative magic wand, what would you suggest for us? And I open it up to any of the witnesses.

Ms. DAVY. If I had my legislative magic wand, I think that, as I mentioned in my previous answer, a more robust civil rights process at the local level would be the biggest need for our community, despite the increases in credit limits and despite the availability of the Heirs Property Lending Program, if people cannot get their applications reviewed and processed because of any discrimination that is occurring, that is going underreported and under-recognized, that barrier is insurmountable and doesn't even open the door to access in credit. And so I definitely think that would be the highest need at this time.

Ms. SPANBERGER. Thank you. And thank you very much for your testimony. Certainly thank you for sharing your experiences, and thank you for bringing greater clarity to your answer and in raising awareness about having local steps for raising concerns or bringing challenges.

To any of the other witnesses, would you care to add anything else?

Ms. ASHERMAN. I would love to add something. In addition to waving the wand for that ask, I do think that a pre-approval process for ownership loans is really important. It is something that most other lenders offer, and it would keep farmers competitive. And I also think that one of the amazing things about FSA repayments is you can make an annual payment instead of monthly payments. And I am assuming that is because FSA recognizes cash flow is very seasonal for farmers. Well, workload is also incredibly seasonal, so being able to do some of that burden, some paperwork, or do some of that preplanning, get a pre-approval in your off-season and then be able to look for land, in an ongoing fashion, would be a major benefit to farmers.

Ms. SPANBERGER. And so you are saying recognizing that there is already a sort of uniqueness to the industry, if you will, that FSA has already taken certain steps, and so applying those kind of on the front end as well, those assumptions or those understandings. Okay. I appreciate that.

Any of the other witnesses? I can't see in the committee room.

Mr. TILLMAN. I would like to basically make a suggestion. This is administration of equity and fairness. And being of equity and fairness, I think that there need to be programs to develop based

on the past discrimination of a lot of these things, whereas that a person who basically receives an ownership loan and an operating loan, the first 3 years of his operating loan, he should have a waiver for him to build equity and sustainability in this process. This will give him cash flow, a chance for him to basically build a sustainable base for his operation. And with this, he can therefore take the monkey off his back and be able to actually manage, operate, meet the necessary needs of his farming operation.

Ms. SPANBERGER. And have that breathing room as things are getting up and started and the operation is sort of working out the challenges. That makes sense. Well, thank you very much to our witnesses.

Mr. Chairman, I want to abide your instructions for us to stay on time, so I yield back. Thank you so much.

The CHAIRMAN. I appreciate that, Ms. Spanberger.

And now the gentleman from Arkansas, Mr. Crawford, is now recognized for 5 minutes.

Mr. CRAWFORD. Thank you, Mr. Chairman, and I thank the witnesses for being here today.

I guess there is a long history of young and beginning farmer programs and probably have their roots, as we know them today, going back to the 1960s as part of the Great Society under the LBJ Administration, and yet we see a continual trend for the average age of a farmer continues to climb. And, as indicated by the Chairman and the Ranking Member, we are bumping 60 years of age and climbing on the average age of a farmer in the United States.

I had an occasion to text a good friend of mine who is a farmer back in my district. I said if you could distill it down to a sentence, what do you think could be done to bring down the average age of a farmer in the United States? And here was his surprising response, and we are going to talk about this. His response was stop consolidation of the ag distribution network.

So if we unpack that a little bit, the genie is basically out of the bottle here. Can we put it back in? I don't think so because the smaller guys are paying 25 to 30 percent more for inputs because the system is set up to accommodate the leverage, the strength in numbers, the economies-of-scale. Look, I am not going to malign economies-of-scale. I don't want to penalize people for being successful. But at the same time, if we are going to backfill our production base, we have to think forward about how we address this and all the credit programs. And it is not just the Federal Government. There are all kinds of entities in every state that are engaged in some form of young and beginning farmers incentives, and yet, we still see those numbers climb. We haven't moved the needle at all.

So I want to talk about this system that we rely on: the ag distribution network. And, Mr. Brown, I will start with you because you look like a real success story, and that seems to be the exception *versus* the rule with regard to integrating young farmers into the system. Give me your take on that statement on the ag distribution network.

Mr. BROWN. Well, I will note that the ag network is difficult to navigate for a young farmer. And as you mentioned, input costs, commodity prices, weather all present many variables and chal-

lenges to me as a young operator. How do I compete with that? I think we compete with relationships, with education, and you compete with the corporate advantage, what I would call, with hard work. And the only way that I can overcome these challenges is by outworking, by out-communicating, and having greater access and understanding of how our operation is set up and why it is a better approach than maybe the corporate attitude that you mentioned.

Mr. CRAWFORD. Well, and I don't want to get into a dynamic of where we are talking about "corporate farms," quote/unquote. I am not here to try to paint a negative picture of economies-of-scale. We rely on those economies-of-scale. What I want to do is to talk about how we get that young person. I mean, as I said, I think you tend to be a little bit of an exception to the rule when we see a continued upward trajectory in that age. And then, on the other side of the spectrum, you look at Ms. Asherman, who is on small acres and that is another success story, again, probably a little bit of an exception. I am going to ask Ms. Asherman to kind of weigh in on this as well. What have some of the challenges been for you? It is probably not so much access to capital as it is to the competitive disadvantage you find yourself in because you are starting from a position of not being an economy-of-scale? Do you want to weigh in on that, Ms. Asherman?

Ms. ASHERMAN. I do. I will say that I think it is important to clarify that when we talk about small farmers, we need to clarify are we talking about small acreage or small gross sales? And there is a big difference between a commodity grower, a row crop grower, and a direct produce market grower.

[Information supplied by Ms. Asherman is located on p. 1369.]

Mr. CRAWFORD. Right. So this is illustrating the need for rural broadband. I think I take your point, Ms. Asherman. And let me just say that—and you do, you make a good point about the difference between gross sales *versus* acreage. And I am talking about sales really. I mean, your revenue generated from your efforts, not so much the size of the operation in terms of physical acreage but the impediments to being successful on the front end. And Mr. Brown alluded to this. You have to be this much better than your competitors to be able to get the capital you need, but you still start from a distinct disadvantage. To me, those are the things that we are going to have to wrestle with if we are going to move the needle on our aging farm population.

With that, Mr. Chairman, I am going to yield back.

The CHAIRMAN. Thank you very much.

And now the gentlewoman from New Hampshire, Ms. Kuster, is now recognized for 5 minutes.

Ms. KUSTER. Thank you so much, Mr. Chairman, and I apologize for not being available earlier. I want to thank our panel for being with us today. I am so grateful we are having this conversation.

As it has been noted this morning, the average age of farm producers is 57 years old, and the most recent Agriculture Census in New Hampshire found that $\frac{1}{3}$ of our producers are over 65 years old, but only seven percent are under 35 years old. So that disparity is very troubling, especially in the long-term.

I have yet to meet a farmer producer who isn't passionate about what they do. The work requires passion. Growing our food can be

incredibly rewarding, but it is not an easy life by any means. And that is why Congress must do all we can to ensure that young and beginning farmers have the tools and support that they need to succeed. We are going to need them to continue the legacy of small family farms in America and to grow enough food to feed our nation and others around the world.

We have to incentivize young people who are interested in agriculture, such as our speakers here today, because the challenges facing them are daunting. And as the next generation of farmers looks increasingly diverse, including women and people of color, including those from historically underserved communities, I think this will enrich our nation's agricultural sector tremendously.

I am grateful there is an incredibly dedicated community of lenders in our state, as well as stakeholders who focus on education, training, and farm transition planning. We have great partners as well within the Farm Service Agency. But nevertheless, young, beginning, and underserved farmers still face barriers, including access to land and capital.

Ms. Asherman, maybe it is because you are a New Englander at heart, but I really enjoyed your story and your testimony. And I was so struck by how you finally found farmland on Craigslist. Could you elaborate on the challenges you faced in finding affordable farmland and how having a pre-approval process for FSA direct farm ownership loans might have helped your situation?

Ms. ASHERMAN. Thank you for the question. I will say that I am fortunate, and in my area, affordable farmland is very available. I think that that is rare, and I know for a fact from my farming peers that that is not the case in all of the states and in all of the regions and even with all the regions within my State of Georgia. So in my case, finding affordable farmland was actually relatively easy.

I think a pre-approval process would enable farmers to plan, and farmers are naturally planners. It is very difficult to be shopping for land, meet a landowner, make an offer, and then have to say, "Oh, but by the way, I still have to go actually secure financing, so even though I have given you an offer, would you please wait and let me see if I can secure financing," and then have that financing process take several months.

A pre-approval process would mean that you would be able to have a business plan where you actually know the maximum budget that you are going to spend on your land, be searching for a property within that number, and then when you find land, you can actually make an offer and you don't have to go then and secure financing.

Ms. KUSTER. Got it. Good. Well, I agree, a quick and streamlined process would be helpful.

Mr. Tillman, just briefly here, thank you for raising the appeals point in your testimony. Can you describe this appeals process, and are there changes that we need to make?

Mr. TILLMAN. I didn't quite hear you.

Ms. KUSTER. Mr. Tillman, did you hear my question?

Mr. TILLMAN. I didn't quite understand the question. Would you repeat it, please?

Ms. KUSTER. You had referenced the appeals process, and I just wondered if you would describe that and if there is anything that we need to do to fix that in the upcoming farm bill.

Mr. TILLMAN. The appeals process?

Ms. KUSTER. Appeals for denials of loans.

Mr. TILLMAN. Yes. There needs to be some type of structure there in the appeals process. A lot of times—

The CHAIRMAN. If I may, Mr. Tillman, the lady's time has expired, but if you would not mind submitting that in writing the really good idea you were about to express to—

Mr. TILLMAN. I would appreciate that. That I would appreciate.

[The information referred to is located on p. 1379.]

Ms. KUSTER. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. Yes, ma'am. The gentleman from Georgia, Mr. Allen, is recognized for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman and Ranking Member Thompson, for hosting this hearing today. And I want to thank our witnesses for taking time to talk about these important issues. Obviously, we are concerned about where agriculture is presently. It certainly—and it is a global problem. We know that there are a lot of threats out there. We just saw yesterday where the June CPI inflation report shows about a 9.1 percent increase. And of course, one of the things that I get the most complaints about is if I am in the grocery store, people grab me and say, where is this going? Or if I am filling up my car at the gas station, they are saying—I mean, they walk up to me and say what are you going to do about this? And I can't imagine—well, I talk to businesses, and I know what you are going through on the farm. And frankly, there is not a lot in the farm bill to deal with this other than you just hope that commodity prices will keep pace with the inflation, which then if commodity prices keep pace, then the grocery store and the other things happen. So this is just this vicious cycle that we have to tackle. And certainly, the two ways to tackle that is discontinue the increase in money supply and quit spending government money. I mean, that is a recipe for inflation.

So we can have this important farm bill oversight hearing on access to credit today, and I am glad that we are, but I know until we can get a handle on this economy and quit running it from the White House and let it be a market-driven economy so that we can get a handle on this, it is going to be difficult to predict what is out there.

Obviously, we know in every industry that the average age of owners and operators and those in just about every business is almost over 58 years old. And we have to replace those folks. In fact, we have had, I don't know 11 million people disappear in the workforce. We don't know where they are. We don't know if they retired. We don't know what is going on.

But I guess my first question to you, Mr. Brown, is can you elaborate on the recommendations that were given to USDA on behalf of new and beginning farmers and ranchers and specifically related to programs that could be included in the next farm bill?

Mr. BROWN. Absolutely. Thank you, Congressman Allen. I would first note that there is not an aligned and uniform definition for *young, beginning farmers* inside of the U.S. Department of Agri-

culture, and that is unfortunate because we need to understand who we are dealing with before we can shape meaningful programs around this group of very important farmers. And the recommendations that we made included access to capital, access to land, tools for transition, and information and customer service. All of these had well-thought-out recommendations that we had formulated over about 2½ years. Unfortunately, the USDA has acted upon zero of those initiatives. All of them are meaningful and helpful for our committee that represented young and beginning farmers, and I would ask that we have predictability going into the next farm bill. We have so much volatility throughout my operation, throughout the ag economy. If we know what we are dealing with, we can better shape.

Mr. ALLEN. Yes.

Mr. BROWN. And as one of the other speakers noted, we can we can plan better.

Mr. ALLEN. Yes.

Mr. BROWN. And that that provides us peace of mind. And let's not have a knee-jerk reaction here, but let's have a well-thought-out plan where farm families have the opportunity to do what we do best, and that is produce the best crops in the world.

Mr. ALLEN. Exactly. And the last time we faced this kind of inflation was in the 1980s, and we know what that did to agriculture and to farmers.

And, Mr. Brown and Ms. Asherman, I mean, how is this unpredictability impacting your decisions right now—and quickly; I have 24 seconds—on how you are going forward.

Mr. BROWN. Let me say that it is unprecedented for my operation. I have been involved in operations since I was 10 years old, of course, but I have owned it for just the past 5 years, and the volatility is very difficult. Fortunately, I bought through the Joint Financing Program, as I mentioned, FSA and Farm Credit, was able to secure some land before the massive inflation hit. But that doesn't mean that we are not going to face tremendous challenges in the future, so I am trying to keep my powder dry and prepare for the worst.

Mr. ALLEN. Good. Thank you. Ms. Asherman, I am out of time.

The CHAIRMAN. Thank you.

Mr. ALLEN. If you would respond to this Committee in writing. I would appreciate it. With that Mr. Chairman, I yield back.

The CHAIRMAN. Yes, please respond to him in writing. It would be very helpful.

And now the gentlewoman from Illinois, Mrs. Bustos, who is also the Chair of the Subcommittee on General Farm Commodities and Risk Management, is now recognized for 5 minutes.

Mrs. BUSTOS. Thank you, Chairman Scott. And I also want to say thanks to our Ranking Member for holding this important hearing. This has been enlightening. And we appreciate your time.

As the Chairman said, I chair the Subcommittee on General Farm Commodities and Risk Management as part of the whole Agriculture Committee, and that has jurisdiction over crop insurance. So what I am especially interested in is how crop insurance and agricultural credit complement each other and how we can get these two programs to work better as we look at the 2023 Farm Bill. We

are in the middle of going across the country. Austin Scott is the Ranking Member on our Subcommittee, and he and I just got back from Arizona. We are going to be going to Minnesota later this month to Angie Craig's district and then to Ohio to Congresswoman Kaptur's district to really take in, what do we need to know?

So for our panel here, any of our producer witnesses, why don't we start there, how has your buy-up of crop insurance impacted your access to credit, if at all? And whoever wants to take that, again, to the producers on the panel.

Ms. ASHERMAN. If I may, very quickly, I do not have crop insurance. And to my knowledge, I am too diversified to access those programs. So when I apply for credit or really when I go about my business and my farm planning, I have to take that risk and just own it.

I will say that part of the reason I am so diversified is that provides its own level of insurance, and then I can lose any individual crop and not go under entirely for that year. But I and many producers like me do not benefit from crop insurance.

Mrs. BUSTOS. So Ms. Asherman, then, a quick follow-up. What should we know as we go into the 2023 Farm Bill as it pertains to insurance for the line of ag that you are in? What would make things better for you and your colleagues?

Ms. ASHERMAN. I would say that just generally risk mitigation is a huge factor for all farmers of all sizes, scales, and complexities. And I believe that there is a way to offer crop insurance to diversified and smaller farms. I don't know off the top of my head the nuances of that, but I think crop insurance would be beneficial, and any risk mitigation would be beneficial.

Mrs. BUSTOS. Okay. All right. Thank you. Well, we could talk maybe a little bit more offline as to how that might look.

Again, back to my question about buying crop insurance and how that has impacted your access to credit if at all, anybody else have anything to add to that question?

Okay. I am going to move on to the whole panel then. Do you see ways for crop insurance and ag credit to work better for young and beginning and underserved producers? That is to the whole panel.

[Information supplied by Mr. Tillman is located on p. 1381.]

Mr. BROWN. Congresswoman Bustos, thank you for your question. I will note that crop insurance is vital to our operation and ensuring that our risk is mitigated to a reasonable point. I haven't had to rely upon it myself fortunately. With a recent claim in 2012, we had horrendous drought in central Illinois and throughout the State of Illinois. And at that point, it came in very pivotal to the survival of our operations.

So I would note that in the future as simplified as we can get crop insurance, I know we would like to cover yield as well as price, but it is an overly complex program at this point from my perspective.

Mrs. BUSTOS. Okay. I am going to go ahead and move to my next question since nobody chimed in right away. So I want to switch gears to the value of property in today's market. So during the last farm bill—I have been involved with helping markup two farm bills

now in my time here in Congress. But I was really proud to be able to work with Ranking Member Thompson on the inclusion of Farmers of Tomorrow Act (H.R. 4513, 115th Congress). And what that did is it eased some of USDA's financing requirements on young farmers and veterans to help them access credit to buy land.

Obviously, it is clear that more needs to be done in our next farm bill to keep up with the increasing property values. So just wondering, any thoughts that anybody on the panel has about this? And, Dr. Kauffman, if you can speak to the impact that high real estate values have on young, beginning, and underserved producers who are trying to get into farming?

Dr. KAUFFMAN. Well, just very quickly, in the interest of time, what I will say is that does present a barrier just in terms of cost. I think one suggestion might just simply be to evaluate what the risk profiles are of producers that would be consistent with the goals of this Committee. Crop insurance is of course important, but there could be other mechanisms that attempt to try to reduce those risks.

Mrs. BUSTOS. Okay. Thank you. Sorry, we are out of time.

The CHAIRMAN. Thank you.

Mrs. BUSTOS. Thanks, everybody. Thanks, Mr. Chairman. I yield back.

The CHAIRMAN. The gentleman from Alabama, Mr. Moore, is now recognized for 5 minutes.

Mr. MOORE. Thank you, Mr. Chairman, for holding this and for Ranking Member Thompson for—obviously, on the Committee.

Mr. Brown, a couple of questions. We have a farm and we quit farming in 1980. The drought and armyworms kind of pushed us out. And so my cousin's son has kind of come back into that operation and he is trying to get it going. And what do you see—I have talked to Garrett a little bit about this, but what do you see as the largest barrier to entry for young farmers and obviously underserved producers? What do you see as some of the just—I know you had different set of sort of approaches you had to take and I think you had to navigate some pretty tough issues, but what do you see as the largest issue right now?

[Information supplied by Ms. Asherman is located on p. 1371.]

Mr. BROWN. Thank you, Congressman Moore. I would note that the biggest challenge for me in transitioning into the farm operation was the lack of communication and understanding throughout the generational divide but also in relation with our lenders and associated parties. It is important that we educate those that are entering the agricultural field and for us as young farmers to understand the options that are out there and the programs that are available.

I think USDA, from my point of view, does a poor job educating on the programs that are out there and accessible. And with farm bills changing every several years, a lot of times those programs go away or are new out there, and we don't see them at the grassroots level for a decade or so. We hear about them by word of mouth rather than by direct FSA or county offices notifying us, so it is it is tough to be aware of all the programmatic changes. As I mentioned, consistency is key for us to understand what is out there for young farmers as far as access to capital.

Mr. MOORE. You said consistency is key. So I think with him, he has kind of spoken with a lot of the older farmers in the community, but his dad ended up going and cosigning the note to get him started. I think navigating through that process was just too difficult and it just took up too much time. So I will encourage you to—your granddaddy's tractor, do you know where it is still? You said you sold it.

Mr. BROWN. We do. It is still local at this point.

Mr. MOORE. We sold a 641 Ford four-cylinder diesel, my granddaddy's first tractor, and it is in the family now and totally refurbished, but they sold it in the 1980s. So just keep your thumb on.

Mr. BROWN. Thank you.

Mr. MOORE. Hopefully, you can get it back.

Quick question, Dr. Kauffman. How does the current state of the farm economy influence access to credit generally but especially for young, beginning farmers? Because there are some uncertainties, obviously, with fuel and inflation. What do you see, going forward?

Dr. KAUFFMAN. What I would say is that farming is inherently a risky business, and that is true at any time. But in the environment that we are in right now, those risks are elevated, obviously, with commodity prices and the volatility there with input costs, with severe drought in many places. And so what I would say there is that for those that are already at higher risk and have higher risk profiles, that risk is probably a bit more elevated for those producers, and those tend to be those producers that have the least amount of equity then to absorb any potential shocks.

Mr. MOORE. Any suggestions on how we soften that landing?

Dr. KAUFFMAN. I think a recommendation would simply be to identify what the opportunities are to address those risks in the next farm bill. We have talked about crop insurance as one of those mechanisms. But again, there is a growing diversity of farm operations that reflect in many ways the diversity of production, and so adapting those programs and the processes to then again reflect the risk profile of those that are entering the business could be one step.

Mr. MOORE. Thank you. And with that, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from the U.S. Virgin Islands, Ms. Plaskett, who is also Chair of the Subcommittee on Biotechnology, Horticulture, and Research, is now recognized for 5 minutes.

Ms. PLASKETT. Thank you so much, Mr. Chairman, and thank you for this very timely and important hearing that we are going to have. And I want to thank all of the witnesses who have been a part of the discussion thus far this morning. There has been so much information that has been shared, so many experiences. I am really grateful for it.

Mr. Chairman, it is so interesting, just yesterday, at the lunch of the Congressional Black Caucus, one of the handouts that the caucus made available was some clips from the *Dallas Morning News*, which talks about Black Texas farmers push on USDA loan relief efforts, which have remained stalled in the courts. Some of the statistics that they shared in that were also startling and

showed the difficulty that Black farmers have, and also all farmers of color have with loans. Knowing that, just looking at some of the statistics that they shared with us that, there are farmers who a CNN report said that the USDA rejected 42 percent of direct loan applications by Black farmers, 37 percent by Asian farmers. In 2021 in contrast, only nine percent of White farmers were denied loans last year nationally. This is not what happened in *Pigford*. This is what is still going on today.

Another statistic, last year, 71 percent of Asian farmers and 61 percent of Black Farmers were rejected from direct loans, compared with 23 percent of White farmers who were denied loans. The statistics each year are very much the same. So talking about credit and access to credit for farmers, particularly young farmers as well, is really important.

The questions that I have are related to this. Access to affordable farmland is a major challenge nationally, particularly for people of color, who today make up two percent of farmland owners. We know that owning the land is very vital and important to seeking loans and for credit. There has been a history of backlog of loan applications. If individuals are looking to lease land and purchase a farming entity in the next year, they must make decisions in a timely manner.

So I wanted to ask the witnesses, do you find your current application process to be timely, allowing individuals to pursue their goals having land within a year's framework? I was going to ask that question to Mr. Willard Tillman or Ms. Dañia Davy, if you all have found any information about this.

Ms. DAVY. What we heard consistently at the Federation of Southern Cooperatives/Land Assistance Fund through our monthly listening sessions is that the process of applying for a loan is so lengthy and burdensome as to discourage new and beginning farmers and ranchers of color and existing Black farmers from accessing the resources that they need from the Farm Service Agency. And that is part of why one of the solutions that we advocate for is a Black farmer financial institution that is modeled after the Farm Credit System in which the farmers themselves have an ownership stake in the credit process, as well as that decision-making. And we have also—to the preliminary remarks that you made, heard consistently the ways in which the debt burden that continues to handicap those farmers, those 17,000 socially disadvantaged farmers and ranchers of color that were promised that debt relief last year have also impacted their ability to access credit going into this year, and we fear that that will result in the next wave of land loss for socially disadvantaged farmers and ranchers of color.

[Information supplied by Mr. Tillman is located on p. 1381.]

The CHAIRMAN. Yes.

Ms. PLASKETT. Thank you. Thank you so much. The other question I have, Ms. Asherman, thank you so much for being a part of the hearing this morning and for the work that you are doing. In 2017, the Census of Agriculture, 88 percent of farmers in my district in the U.S. Virgin Islands were over the age of 45. Can you speak about effective methods to educate and grow the future generation of farmers, as well as encourage their continued participation in the agricultural space?

[Information supplied by Ms. Asherman is located on p. 1371.]

The CHAIRMAN. I think she is having a bit of difficulty.

Ms. PLASKETT. She is. And as I have gone over the time, thank you so much, Mr. Chairman. And if any of the witnesses are able to put their answers in writing, I would really appreciate it

The CHAIRMAN. Sure.

Ms. PLASKETT. Thank you so much, and I yield back.

The CHAIRMAN. Thank you for your cooperation.

Ms. Asherman, staff has informed me that you are experiencing some connectivity issues, so if you would like to turn off your video, it seems that your video is interfering with your audio. So if you turn off your video and proceed with audio only, that might improve it, and we can hear your responses and respond. You are making valuable comments, and we want to hear from you. I apologize for the technical difficulties.

And now the gentleman from Indiana, Mr. Baird, is recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman and Ranking Member Thompson. I really appreciate the opportunity to have this discussion, and I always appreciate the witnesses and their expertise and the information you can bring to us to help us make better decisions.

I just have to make a comment, Mr. Chairman, that I am one of those farmers over 57½ years old, and I don't have any intentions of having one foot in the grave just yet. But anyway, I think that is an asset from the standpoint we can serve as mentors. We can serve as advisors. We can also be knowledgeable about some of these programs and can help young people get started in farming.

One of the old adages is that the older farmers are probably long on assets but they are short on labor, but the younger farmer is short on capital and long on labor. So that combination of the older individual needing labor and the younger individual needing capital, I think we capitalize on that. And so I appreciate you allowing me to make those statements.

So now we get down to the real issues. Dr. Kauffman, we have talked a lot about the extreme uncertainty in the global supply chain, as well as the rising cost of inputs, bureaucratic red tape. So I am particularly interested in EPA's recent decision to threaten the access to some of these crop protection tools, glyphosate, Dicamba, those kinds of things. And I know this is not necessarily in your wheelhouse, but it probably comes into some of the discussion with producers. So can you share any insight into how that uncertainty maybe impacts producers' decision-making if you will?

Dr. KAUFFMAN. Yes, thank you for the question. I can't speak to the specifics of the policy uncertainty around the EPA, but what I would say is just simply a comment on the anecdotes that we have received from producers that would reflect that idea that the volatility in those markets and the inability to secure inputs is of paramount concern, especially going into the fall as many producers would be going into renewal season.

Mr. BAIRD. And so that ability to have—or that uncertainty adds to the inability to plan and look forward and so on, so it is really

an asset when you can have your capital lined up and your inputs lined up.

Dr. KAUFFMAN. Yes, I would agree with that. Certainly being able to make decisions with confidence that you can secure the necessary inputs, going forward, is a pretty key part of the planning process.

Mr. BAIRD. Thank you. Mr. Brown, do you have any comments in that regard?

Mr. BROWN. No, I will note that we had a bit of a workaround last year as we saw fertilizer prices, chemical prices, seed prices climbing through the fall into the winter, so we had the opportunity to work around and prepay a lot of our input costs last year. This year, we don't have much of a workaround. We see fertilizer just a tad bit coming off its highs at this point, but chemicals, fuel. Fuel is up two times over last year. So we are going to face the challenge of do we lock in our prepaids before the end of the year or do we risk locking those in, in the springtime, and hoping that they have improved at that point.

Mr. BAIRD. Thank you. Mr. Tillman, your observations, please?

Mr. TILLMAN. No, I think that basically getting a comprehensive plan to just going from here to there is the key to all the success that you are going to have to have. You are going to have challenges as you go from here to there, so I think that reevaluating with the rising cost and expenses of everything, you basically have to revamp your whole plan.

Mr. BAIRD. Thank you. Do any other witnesses have any comments in that regard? We have about 45 seconds.

Ms. ASHERMAN. I would just like to point out that one of the reasons that I believe beginning farmers are often doing things differently than our parents and our grandparents is to sort of mitigate some of the challenges that are happening, including becoming organic as a way of not having to deal with the potentially hazardous or unavailable inputs.

Mr. BAIRD. Thank you, and I thank our witnesses for their comments. And with that, I yield back.

The CHAIRMAN. Thank you, Mr. Baird.

And now the gentlewoman from Washington, Ms. Schrier, is now recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman. Today, I would like to discuss some of the barriers that young, beginning, and underserved producers in my district face accessing credit. The 2018 Farm Bill made really nice strides to improve financial assistance for young, beginning, disadvantaged producers by increasing loan limits and set-asides. But farmers in my district still need help in order to access these loans and opportunities for first-time farmers who often don't have generational knowledge. Mr. Baird alluded to that need for mentorship. Or if they don't have comfort navigating a local USDA office, these loans can sometimes just seem out of reach.

Accessing these loans and programs also requires substantial time and a high degree of business and financial acumen that new, beginning, underserved farmers might not have. And navigating a Federal bureaucracy is daunting to say the least. And certainly

knowing how to how to get the necessary technical assistance for these loans and other opportunities is also really challenging.

So, for example, when one farmer in my district looked into Federal loans to help him buy land, he quickly came to the conclusion that the process was too tedious and strenuous to be worth considering, and he decided to use a private mortgage company instead. So what this meant is that he actually had to sell his house in order to afford the down payment on the land, and he used his personal credit lines to then pay for farm equipment, and that is a big risk. So for him and for others in my district, there is this pervasive sense that these programs are just not meant for them.

So ultimately, there is this substantial unmet need for connecting farmers with the technical assistance that the USDA and FSA programs provide, particularly to ensure that these beginning farmers know what programs are out there, who they can talk to, and what assistance is available.

Ms. Asherman, you talked about some of these challenges, and you talked about starting up your farm and that your eventual success with FSA was due to the right combination of persistence and good fortune. But your story also demonstrates how effective these loans are to get people started. Can you talk about how the USDA can better meet beginning producers where they are to provide technical assistance and let them know what loans or what other assistance they can provide?

Ms. ASHERMAN. Yes, I mean, well, I completely agree with everything you just said about feeling like the loans are just not for you, and so trying to decide is it even worth applying for them. I think that, I mean, it would be nice if the process were simpler and if we could mitigate that issue, but I do think that it is possible, and the benefits for new farmers to get to that next step, whether it is buying the tractor, buying the land, that capital is so important for especially first-generation farmers who don't necessarily have inherited land or inherited equipment. So while the programs are very difficult to navigate, I do think it is a testament to the success of them, and the intention of them is very important.

And if I can just say, relating to a point made earlier about how do we move the needle on the average age of farmers in this country, I really think it is not just making sure farms can transition. It is also making sure there are new farmers who did not come from farming, that new land is in production. I think that is so critical.

Ms. SCHRIER. It is really interesting because we often talk about how we are losing that farmland, and so to be able to bring not just new farmers but new land into the question is an interesting one.

I was going to ask also, you can kind of comment on whichever one you want, like the cumbersome paperwork and long processing times, if you could either talk about how the USDA could streamline this process or talk about this leap—so many of the young farmers in my district are leasing the land, so they never get the capital needed to like buy the tractor and get a foot up. If you want to comment either on—

Ms. ASHERMAN. Yes, I mean, I think that I see a lot of young farmers leasing because that is the easier thing to do. So in terms of getting started, getting access to the land, getting crops in the

ground, getting cash flowing, leasing is so important, but it doesn't build long-term equity, and it doesn't provide secure land tenure. So ownership is really important.

The CHAIRMAN. The lady's time has expired.

And now the gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. Thank you, Mr. Chairman. And thank you to our witnesses for appearing before the Committee today.

As someone who represents a rural district with a lot of young farmers, this is a really timely issue. So I will just jump right in.

Mr. Brown, what was the process like when applying to multiple different loan programs at USDA? And specifically, can you elaborate on the inefficiencies that you saw during the application process? Do you think that the process itself could deter farmers from applying for the loans altogether? And I think we all know the answer, so if you could dig into some of the specifics, I would be appreciative.

Mr. BROWN. Absolutely. Thank you, Congresswoman. So it has been a mixed bag for me. The real estate loan process went fairly smoothly for me, largely based on the joint status of the loan being between FSA and Farm Credit, as I mentioned previously. That helped smooth the operation because the communication with Farm Credit was extremely fluid and helpful in regards to understanding what I was getting myself into.

Now I have had two challenges with other USDA programs. The Conservation Stewardship Program, as we transitioned from one structure in our operation to another as a generation phased out, kicked me out of a conservation program per year and caused extreme frustration when I needed the revenue the most. And also the farm storage facilities loan I didn't apply for this year because it requires 3 years of ag production history. The problem is with the young farmer, we are growing at such a rapid rate to keep up with competition, I am expanding my grain storage to keep my costs on my operation down actually so I don't have to pay an elevator to store my grain. I would like to store it myself.

Well, I picked up some ground and had 1 year of history, but it was such a substantial amount of ground that I needed that grain storage available. And I wasn't able to access the farm storage facilities loan because I didn't have 3 years of history. So I would encourage that to be addressed in the future as well.

Mrs. CAMMACK. Were you finding that the levels of support were adequate?

Mr. BROWN. Absolutely not. The problem is farm real estate in my area is explosive. You have \$20,000+ per acre land selling this year, which is up in some areas about 40 percent from last year alone. And also operating expenses are extremely high. So I don't use the operating note that is available through the FSA because the limits are unreasonably low for my operation.

Mrs. CAMMACK. And I hear that all over the country, but thank you for that.

Ms. Asherman, as a young farmer yourself, what gave you the confidence and security to utilize the USDA loans and trust you would have the ability to access the credit to start your operation? Is there any way—and as a small government conservative, I al-

ways say repeatedly that we just need to get government out of the way. Specifically, what can Congress be doing in helping build trust with our new farmers?

Ms. ASHERMAN. I do explain in my written testimony a little bit more detail on this, but I just—I read the FSA website, and I was like, ooh, this is for me, I meet these requirements. And then once I felt confident that I met the requirements, it was just, again, farmer stubbornness and persistence at working with my loan officers and chipping away at the process. And I honestly had no other alternative, and I had nothing to lose. So I was sort of at the point in my farming career where I was either going to stop farming because I did not want to be a tenant farmer any longer, or I was going to find a way to have my own farm. And if either of those—if I hadn't been able to find ownership opportunities, I probably wouldn't be farming today. So I just—it was stubbornness and I wouldn't say confidence except for once that first loan process went through, I do feel now like I understand how to navigate the process. I am more confident I can do it in the future. But that is because I had that first experience.

Mrs. CAMMACK. Wonderful. Thank you so much. And with that, thank you, Mr. Chairman and Ranking Member, and I yield back.

The CHAIRMAN. Thank you. And now the gentlewoman from Iowa, Mrs. Axne, is now recognized for 5 minutes.

Mrs. AXNE. Thank you, Chairman. And thank you to our witnesses for being here, I very much appreciate it. It is a really important topic, so I am glad we are having this hearing.

Since coming to Congress, I have certainly made it a priority to help our family farms. I am a fifth-generation Iowan with family farm in my blood as well. Great to see our state next door being represented here, so I will have some questions for you. But I have done a lot of things from working to make sure that we didn't change the stepped-up basis that would really hurt our farmers, to securing disaster relief, to making sure that our operations can recover from the difficulties they have seen, and of course, addressing things like cattle market transparency so that smaller producers can actually get a fair shake. But we know that farming remains a viable option for many people but not for a lot of our new farmers to get involved.

And so as has been mentioned here, we know that the average age of a farmer is nearly 60 years old, and $\frac{2}{3}$ of farmland is managed by someone who is older than 55. So as we continue to see these declines in rural population, we need to make sure that this upcoming farm bill offers support for those who want to move to rural America and start a new farming business. And I am seeing this every day of the week. I see people who want to be out in our rural communities and absolutely want to farm.

We know that the 2018 Farm Bill made some notable improvements like increasing loan limits for FSA loans or establishing the Farming Opportunities Training and Outreach Program, but we have a lot to do. And so, of course, I have heard the biggest hurdle is simply the cost of land. We have seen in Iowa, of course, incredibly significant increases in the cost of the land. And you may have heard that just last month, a farm in northwest Iowa went for a record \$25,000 per acre. We thought we were big-time. I remember

about over a decade ago and it was \$7,000 an acre. We thought oh, my goodness, so this is something else.

So, Mr. Brown, my question, I am sure you have seen these similar trends next door. You are right next door to us in Illinois. And you noted in your testimony that you led working groups compiling recommendations on improving policies for new and beginning farmers, including that access to land. Are there some specific recommendations you can make to this Committee so that we can get you guys onto the land when we are looking at \$25,000 per acre right now?

Mr. BROWN. I think, as I mentioned in my testimony, just keeping up with the rapid pace of change in agriculture is important. And you increased those loan limits in the last farm bill, they are going to have to be increased to be beneficial in this farm bill as well. Land costs will continue to escalate in my opinion, and cash rents obviously are going to keep up with that as well. So even if a farmer doesn't have access to purchasing the land at this point, they are going to have to have access to their operating note because their cash rents are going to go through the roof as well. So I think we have to look at both approaches in the future because they are both going to be instrumental to our survival.

Mrs. AXNE. Thank you for bringing that up. And I recently just heard when I was out doing a roundtable somebody say they are going to increase their rent. They have to. There is just no ifs, ands, or buts about it. So thank you for letting us know we have to address both of those sides of the coin.

And, Ms. Asherman, at a roundtable I held in my district last year, a farmer relayed concerns that while these programs have been critical in helping many beginning farmers get started, they age out of them, and then they are stuck in the middle where they might not have the equity that that older farmer has to keep them established. So what can we do here in this middle world where we can develop some programs for our new farmers but we have those middle farmers who are falling off on a cliff when those opportunities stop for them?

Ms. ASHERMAN. Can you explain how they are aging out? I am not sure I understand.

Mrs. AXNE. Yes, well, the policy doesn't apply to them anymore as far as being able to get the grants for new farmers, but they are like—it is kind of just like a small business, a startup phase and then you move into the middle phase, you are trying to—farming is a small business so you are trying to keep that middle ground running while you grow your business and you have lack of access to capital because you don't necessarily have a strong running farm yet. So it is that middle ground where they can't get access to the loans. They are beyond just the new farmers, but they are not up at that 60 year old farmer yet, and they are trying to make ends meet. What can we do for those folks in the middle?

Ms. ASHERMAN. I mean, I would say the policy needs to change to understand that there is a vast number of farmers with different experiences and different resources. So some people will come from a sixth-generation farm, and they are going to have automatic equity in that land that they have that they are keeping afloat. And then some people are going to start with nothing. I feel like I was

in the sweet spot between having experience and having the ball rolling where I was too busy to apply for anything, but I am not sure. I am not sure.

Mrs. AXNE. So it sounds like something we should look at. Thank you so much.

The CHAIRMAN. And thank you.

And now the gentleman from Ohio, Mr. Balderson, is now recognized for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman, and thank you for this hearing today. My first question is for Dr. Nathan Kauffman. Dr. Kauffman, thank you for being here today. And my question to you is in your testimony, you talked about intensifying cost pressures that are being put on farmers. Despite these pressures, you say that agricultural credit conditions have remained strong. Cost pressures and access to credit are two major barriers to entry for young and beginning farmers. While these cost pressures are not having an impact on credit right now, do you anticipate that will change if the costs continue to rise?

Dr. KAUFFMAN. I do think that the risks are elevated in part because profit margins have been so strong and, generally speaking, input costs tend to rise as commodity prices also rise, so those profit margins could get squeezed. It wasn't that long ago prior to the pandemic that we were in an environment where those profit margins were low, so there are some possibilities that those risks could intensify in the coming year.

Mr. BALDERSON. Okay. Thank you very much for that answer. If you didn't direct it that way, I was going to have you do a follow-up, but that is great, so thank you.

My next question is for Ms. Asherman. Good morning, and thank you for being here. I want to shift to the topic of microloans. FSA's loan webpage describes these loans by saying they are designed to meet the needs of small and beginning farmers by easing some of the requirements and offer less paperwork. Ms. Asherman, in your testimony, you shared your experience obtaining a microloan and stated that the process was nearly identical to a direct operating loan. Can you describe in more detail what this process looked like for you?

Ms. ASHERMAN. Yes, I was really disappointed because I was busy and trying to take advantage of a microloan specifically for the expedited nature. Essentially, the paper, the documents that I had to fill out, which are all PDFs on FSA's website, for this operating microloan, which was a \$50,000 loan, what I actually ended up filling out were all of the same documents for the standard direct operating loans. So, I mean, just the exact same paperwork and then my additional documents that I needed to supply cash flow projections, yield history, yield projections, all of that was to the same detail and extent that it was for me to purchase my land actually. And so there was really no paperwork difference for me last year when I was accessing a microloan.

And when I asked my loan agent why that was and I sort of suggested that the microloans were supposed to be a less paperwork-heavy process, they said that because I was already in business and I already had this documentation, that they were going to need it. So essentially, I felt like my paperwork burden was actually in-

creased because I am running a successful business instead of decreased because I have a successful business that I have shown I can repay a loan.

Mr. BALDERSON. Thank you very much for that answer. And I want to do a follow-up, and I will start with you. I want to be conscious of the time. We are done pretty quick but, Ms. Asherman, I will ask you first since you are already right here. What changes to the microloan process or the FSA loan process in general do you think need to be made to make these loans more accessible for small and beginning farmers?

Ms. ASHERMAN. I am not sure what the paperwork should have been, but I think it seems like an implementation problem, at least at my local level. The concept seems great. I just don't know if it happened the way it was supposed to on the ground.

Mr. BALDERSON. Okay. Thank you. Would anybody else like to add to that?

Seeing none, Mr. Chairman, I yield back my remaining time. Thank you.

The CHAIRMAN. Thank you. And now the gentleman from Florida, Mr. Lawson, is recognized for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman, and also Ranking Member Thompson, and welcome to all of the panel to the Committee today.

My first statement is centered around what Ms. Asherman mentioned in her testimony, that the high cost of student debt is a major challenge for new farming generation when accessing credit and building capital, especially for young farmers of color. Ms. Asherman, can you talk more about what the value of higher education was to you and other young farmers, in addition to your believing that Federal forgiveness of student loan debt for young, beginning, and underserved producers would be beneficial in your work? And what could this forgiveness program look like?

Ms. ASHERMAN. Yes, I mean, I definitely feel like a college education is a really important thing for all Americans who want to have it. It is where you become yourself and you identify what you want in life, and it gives you important skills. I definitely think that going into farming with a bunch of student debt would make it very difficult to succeed, if not even start. And to me it just seems like philosophically farming is so important and it is such a sacrifice and farmers work so hard and for so little reward, that there is an opportunity to incentivize the new generation of farmers to go into farming when they maybe didn't come from farming by offering relief for student debt. It seems like that could dovetail really well with rural development because I do think there are people who want to live in rural places, and I do believe rural places need more people who are motivated to work there. So to me, it just seems like there could be an incentivization to help make people choose farming.

And I think it is worth asking the question, why do a lot of current farmers not want their children to go into farming? And I think the answer is because it is so risky and so challenging. And by going into farming, you are potentially going to go without a lot of basic things that most people get from their jobs, from their employers, safety nets. It is just very hard to choose it, and so there

needs to be ways of helping people to choose farming, and I think that would be in the best interest of our country and in the future of food security.

Mr. LAWSON. Okay. Ms. Davy, I would like for you to—because of your work at Alcorn State University and I have Florida A&M University agricultural program, I will ask you to comment on that. But what I first want to say is that the Chairman last year, we provided scholarships for students to help attract students to stay in agriculture, especially historically Black colleges. And so I would like to see if you want to comment in this area.

Ms. DAVY. Thank you for the question. As a matter of fact, the law students that are traveling with me this summer providing estate planning services to heirs property, landowners in Black farming communities, they were just learning about that program that is provided through the HBCUs and a partnership with USDA. And they said that they wish that they had learned about that because there are so many careers in agriculture that don't require being a farmer in particular. But I definitely think that the education, a college education gives any small business owner an advantage in navigating all of the bureaucracy and all of the financial planning and business planning that is required.

I think that even though farming is a generational industry, you don't generally wake up and decide to become a farmer. It is usually something that you have inherited through the previous generations. But because of the widespread race-based discrimination that Black farming communities have faced, there has been a tendency to discourage the next generation from going into agriculture. So I definitely think programs like those and partnerships with the HBCUs that can incentivize students to pursue careers in agriculture, as well as getting the opportunity to have their student loan debt forgiven, that would definitely make a huge difference.

I know for myself, even as an attorney serving Black farmers, those grants that are available for serving as an attorney in those communities, it was very beneficial to me to have student loan forgiveness connected to that. So I would echo that recommendation.

Mr. LAWSON. Okay. Thank you very much. And I know I am getting ready to yield back, but that program is really working that the Chairman fought so hard for over the years. And I had a nephew to come out of that program and currently working with USDA.

Mr. Chairman, I yield back.

The CHAIRMAN. Yes, and thank you both. Ms. Davy, you hit it right on the mark. That is one of the reasons why we fought very hard, and now we are making that scholarship program permanent and we are adding \$100 million for the 1890s land-grant college scholarships at these schools. Thank you for recognizing that. And thank you, Mr. Lawson.

And now we have the gentlewoman from Connecticut, Mrs. Hayes, who is also the Chairwoman of the Subcommittee on Nutrition, Oversight, and Department Operations. You are recognized for 5 minutes, Mrs. Hayes.

Mrs. HAYES. Thank you, Mr. Chairman, and thank you to our witnesses for your testimony today.

An overwhelming majority of farms in Connecticut's 5th District are small and family-owned farms. Property costs are rising across

the country. The national farm real estate value averaged \$3,380 per acre in 2021, up seven percent from 2020. Beginning farmers in my state are at an even bigger disadvantage. In 2021, the farm real estate value in Connecticut was an astounding \$12,500 per acre, the fourth highest in the country.

Ms. Asherman, I appreciate you sharing your story about starting your own small farm, which is similar to many of my constituents. Would increasing the cap on direct farm ownership down payment loans and counting those loans towards credit history help beginning farmers today in your opinion, and through your experiences?

Ms. ASHERMAN. Yes, I mean, I think that having FSA loans contribute to credit history is incredibly important, especially if USDA wants farmers to also be able to outgrow some of these programs and be able to stand on our feet with [inaudible]. I definitely think that would be helpful.

Mrs. HAYES. Thank you. And I noticed that we heard from several witnesses and also, Mr. Tillman, in your testimony, you pointed out the lack of the pre-approval process for FSA loans slowing down the startup for beginning farmers. The process to obtain a loan can take up to 6 months, during which time a farmer could lose their opportunity to purchase land to non-farm entities with access to commercial lending. We have seen just how tight the real estate market has been across all sectors, so I would imagine that it is equally as tight in the farming sector.

Mr. Tillman, how often do you see farmers losing opportunities because they are kept waiting for a loan to much larger entities who have direct access to capital?

Mr. TILLMAN. We see that quite a bit. We have an issue with timely transactions of the applications. A young lady, Norma, wanted to basically start a business and needed a loan. It went on for over 9 months. So each time that she located some land, before she could close the contract, she had to go do another one. So those are just some of the issues that basically young farmers have in getting into the thing.

But in Oklahoma at this particular time, the land is so extremely high, based upon new investors and certain types of businesses that are moving into Oklahoma. It is basically put at a position whereas that a farmer has to really put everything on the line just to secure the land, not only having to go through the process of getting an operating loan enough to basically partially carry all the liabilities that come with that.

And one other thing—

Mrs. HAYES. Go ahead.

Mr. TILLMAN.—that basically is here, that when a farmer—we are talking about cow-calf operations, get into the Livestock Indemnity Program, which is a part of that, and based upon all the weather conditions and things that we basically have in Oklahoma, there are a lot of things that occur, whereas that the inventory of the liability is loss. And there is no way to recover, and the FSA wants you to have pictures and everything like that. But that needs to basically be addressed in some other kind of way that we can identify a way to—a clear path that this guy had this number of cows at this time. After a storm, he didn't have this many cows.

And so that is an issue I would really like to have on the record there.

Mrs. HAYES. Well, thank you so much for that. And I want to be respectful of the time, but I will ask one last question if you could submit it, anybody on the panel. I am particularly interested in how Congress can reduce barriers for underrepresented farmers, for young BIPOC minority farmers. I am from the State of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, we have just some really creative things going on in the state that have not been accounted for in this industry. So anything you can offer in that area for how Congress can help, I would appreciate it.

With that, Mr. Chairman, I yield back.

[The information supplied by Mr. Tillman is located on p. 1380.]

The CHAIRMAN. Yes. And please do respond to Mrs. Hayes in writing because she is on to a very important point, and we appreciate you responding your recommendations in writing to Mrs. Hayes. Thank you.

And now the gentleman from California, Mr. LaMalfa, is now recognized for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman. Apologies for being out of the room, so many multiple committees and this, that, and the other. But I am glad to be able to take part here at the end.

So I want to focus a question on rising interest rates, Dr. Kauffman, please. Just in straight terms, the borrowing power of producers at this point, what does that look like with these interest rates? What is your opinion on especially for entry level folks getting into agriculture when they may have to go pretty heavy on the borrowing in the beginning to secure equipment, land, inputs, *et cetera*?

Dr. KAUFFMAN. Yes, as a general comment, what I would say is that those farmers who are in most need of financing and maybe have the least amount of equity would then be most exposed to some of those increases because of the amount of leverage. I would say that, generally speaking, those interest rates are still quite low in a historical perspective, but they have been rising. And so it does represent an increased cost burden. I would say that it has not necessarily been the most significant comment about the concerns that we have heard that have been reflected more on input costs, fertilizer and chemicals, specifically.

Mr. LAMALFA. Mr. Brown, as a producer, would you want to touch upon that a little bit, too?

Mr. BROWN. Absolutely. I would say rising interest rates are an issue for us as far as cash flow goes. That is probably my greatest pressure point on my balance sheet right now. I have a lot of pretty strong ratios. I have built up working capital in preparation for these higher input costs, and I am squirreling away as much as I possibly can. But higher interest rates, if I were to take out a real estate loan or continue to use operating money could create a cash flow issue for me.

Mr. LAMALFA. Well, how is the price of land looking as far as the return on investment for—I am a farmer in my real life, too, northern California. We farm rice there, and the price of rice ground because of California's—it is not even realistic if you were just to

walk in, especially as a young grower and trying to get a loan on that and get a return. What is that looking like in your home state as far as the production *versus* costs to service buying land.

Mr. BROWN. Yes, it doesn't pencil out right now. Land prices currently are up 40 percent from last year in my immediate area. Cash rent is quickly following. There is a lot of cash-rented acreage nearby.

Mr. LAMALFA. Cash rent is probably pretty high, too.

Mr. BROWN. But yes, if one were to purchase, it would not pencil out in the long-term at \$20,000 an acre.

Mr. LAMALFA. So really what it looks like for me at home, so if you are not part of an already farming family and had that momentum maybe going back to land from the 1980s or the 1950s or 1940s or whatever, I just don't see how a person comes in at an entry level. Yes, you are going to pay cash rent for a while, and maybe you are going to make some money at that. Talk about that a little bit.

Mr. BROWN. I think it is extremely difficult in the current environment. Me, as a young farmer, I am preparing for an eventual downturn, and I am hoping that I have the cash reserves there to strike at that opportunity. In the meantime, it is all about relationship-building, relationship with your landlords, relationship with your vendors to get everything priced as fairly as possible.

Mr. LAMALFA. As a fellow farmer, what should we be focusing on in Washington, D.C.? In my notes here we are talking about—we hear a lot about, it is Russia, it is the war, and all that, but I also look internally at some of the things we have done to make things cost more because we are not producing energy. What is your view of that from your field and what should Congress be doing?

Mr. BROWN. Energy in particular?

Mr. LAMALFA. Yes.

Mr. BROWN. Is that your question?

Mr. LAMALFA. American energy?

Mr. BROWN. Well, I take a look at what is going on around me, and there is a huge push for solar, and there are a lot of wind turbines popping up in central Illinois. My concern is good ag land is going out of production to facilitate some of those operations. And I myself, I have solar panels on top of both of my machine sheds, so I am not against solar power by any means, but I think we have to be cognizant about the long-term impacts of taking up some of the blackest soil in the world with solar farms and wind energy. And every decision we need to make should be for the long-term.

Mr. LAMALFA. Yes, Mr. Brown, same thing in California. We have some of the most productive ag land in the San Joaquin Valley that is being covered. And they are aggressively—the state wants to buy land and take it out for habitat because the water doesn't get from our storage to the fields these days, our tremendous Federal and state storage systems, and it is not anymore. We are taking hundreds of thousands of acres of land out. I like to tell people what we don't plant now is what you don't eat next year. It is going to be something else. You see food prices now. Anyway, hang in there. God bless you. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

And now the gentleman from Illinois, Mr. Rush, is recognized for 5 minutes.

Mr. RUSH. I really want to thank you, Mr. Chairman. It has been quite an interesting hearing so far. And, Mr. Chairman, I want to start by asking the question of Ms. Davy. Ms. Davy, you have a very curious and insightful perspective [inaudible] Black farmers in the South and the stories that you have shared [inaudible] issue of Black farmers [inaudible] that they face [inaudible]. And I don't want to [inaudible], but we on the Agriculture Committee have a special and unique mission to try to help solve the problem of Black farmers in our nation. And I think that we need the political courage [inaudible] and the understanding that [inaudible] not going to be able to solve the agricultural mission in their entirety for the rest of the nation. Can you kind of share with us what [inaudible] Black farmers [inaudible] will be and how we are failing our nation's citizens by allowing [inaudible] Black farmers over the last couple of decades or even more than a couple of decades [inaudible]?

Ms. DAVY. Going all the way back to the enslavement of Africans, there was a particular expertise who are now known as African Americans brought to the field of agriculture. And so the expertise of agricultural production, of anticipating weather changes, and managing those businesses are very, very critical resources that have educated many farmers, not just within the African American community, but even during the 1980s crisis. There were a lot of efforts by African American farmers to share with other farmers who were underserved about some of the ways in which they were able to navigate the U.S. Government, as well as staying in ownership and possession of their lands, despite many institutionalized attempts to dispossess them of that land ownership. And so the increasing loss of African American farmers from our agricultural system is a devastating tragedy to all farmers because of that wealth of knowledge, but also in particular for the African American community, that loss of wealth estimated in excess of over \$300 billion. Where African American farmland is lost, there is a significant loss of not just Black wealth but American wealth.

And so it is a very important issue that we address, maintaining the existing African American farmers that we do have, but also incentivizing relationships for the next generation of Black farmers so that they can be those first responders for their communities. Black farmers are the first responders. We saw throughout the COVID crisis that in their communities, they were still feeding and providing food for their communities. And so we really think that it is important to make specific investments in Black farmers because they are extremely underrepresented. They continue to be underrepresented even in programs that are set aside based on socially disadvantaged farmer status. There have been ways in which African American farmers have set the foundation for many of the civil rights that we all enjoy today, and so it is imperative that we address this issue.

Mr. RUSH. Mr. Chairman, I don't think I have any more questions, so I yield back.

The CHAIRMAN. Thank you, Mr. Rush.

And now, ladies and gentlemen, we have reached the conclusion of the hearing. And I just want to say a big thank you to each of you. Your testimonies were so helpful, and we will look forward to continuing this dialogue. And you could tell from our Committee Members how seriously we are taking this issue. As we know, this falls in our domain here in the Agriculture Committee to see about our agriculture business, to make sure we are foremost and first in the world, quite honestly. And this is so important.

So I want to thank you, Dr. Nathan Kauffman. Thank you very much. Ms. Dania Davy, thank you for your help. And Ms. Julia Asherman, thank you so much. Mr. Willard Tillman, thank you for your excellent testimony. And Mr. Adam Brown, thank you. You all were very helpful.

This is a continuing process, and we are going to make sure that we have a firm foundation for moving forward with the next generation. But, as you see, it is going to take us staying on this case and making sure we get the help out there to our beginning farmers.

And now with that, I would like to turn it over to the Ranking Member for his closing.

Mr. THOMPSON. All right. Well, Mr. Chairman, thank you. It has been great to work with you on this hearing. Thank you to all of our witnesses, those that are in attendance and those that are attending virtually.

American farmers are facing historical challenges, increased interest rates, they are just now starting to go up; increased input costs; a lack of access to crop protection tools; lack of affordable energy, diesel, propane, gasoline; 9.1 percent inflation as of this week and growing. These are compounded for our young and beginning farmers and our underserved producers. Access to acreage, access to credit, that has been the focus of this hearing.

So given the average age of American farmers at roughly 57½ years, for America to maintain food security, we have to address each of these headwinds, including facilitating efficient access to credit for young, beginning, and underserved producers.

And with that, once again, thank you for being a part of this, and thank you, Mr. Chairman. I yield back.

The CHAIRMAN. And thank you, Ranking Member.

And now, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from our witnesses to any questions posed by a Member.

This hearing of the Committee on Agriculture is adjourned. Thank you.

[Whereupon, at 12:17 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA

June 13, 2022

President JOSEPH R. BIDEN,
The White House
Washington, D.C.

Mr. President:

Long before Russia's invasion of Ukraine, America's farm families and consumers were struggling with fractured supply chains, skyrocketing input costs, and historic levels of inflation, each of which continue to contribute to increased food prices and diminished inventories. U.S. consumers are experiencing the largest price increase in nearly 40 years, with the U.S. Consumer Price Index (CPI) for food rising by 9.4 percent between April 2021 and April 2022. According to the U.S. Department of Agriculture Economic Research Service (ERS), the cost of eggs increased 22 percent, beef increased by over 14 percent, and dairy product increased over nine percent.

The war between Russia and Ukraine, two of the world's biggest suppliers of wheat and sunflower oil, further disrupted the global food system resulting in increased energy prices, fertilizer cost spikes and shortages, and worsening food shortages in developing countries. According to the Food and Agriculture Organization of the United Nations' (FAO) latest scenarios, the conflict could increase chronic undernourishment by an additional 18.8 million people by 2023.

Despite these impending crises, your Administration has neglected to take serious action to increase American production. In fact, you have proposed massive new tax liabilities for farmers, and your regulatory agenda would further limit American farmers' ability to meet global food demand. America's agriculture sector is vital to alleviating global food crises, and we urge your Administration to take the following actions to strengthen that role.

Address Farm Input Costs:

Historic inflation has significantly increased the cost of farm inputs, including energy and fertilizer costs. America's energy independence is compromised, which sends additional shockwaves through our already fractured supply chain. Producers are paying 115 percent more for diesel, while natural gas is up 202 percent. Fertilizer inputs such as nitrogen, phosphorus, and potassium increased 125 percent in cost from January 2021 to January 2022 and an additional 17 percent in the first 3 months of 2022.

To provide immediate relief from the energy and fertilizer crisis plaguing the agriculture industry, we request you:

- Withdraw recently proposed revisions to the National Environment Policy Act (NEPA);
- Allow phosphogypsum (PG) to be safely recycled in road construction or other uses (which eliminates hundreds of millions of dollars in compliance costs);
- Update the definition of critical minerals to include potash and phosphate; and
- Take immediate steps to increase domestic energy exploration, production, and transport, including increasing oil and gas leasing on Federal lands and waters, expediting pipeline permitting, and abandoning rulemakings designed to discourage investment in American energy.

Stop WOTUS Changes:

Recently proposed changes to the *Waters of the United States (WOTUS)* rules create enormous uncertainty for farmers, ranchers, and landowners. The underlying law is vague in defining what constitutes a Federal waterway, noting only they are "navigable," which has historically resulted in egregious, nationwide land grabs by the government. In 2020, this was largely resolved with the Navigable Waters Protection Rule. However, your Administration thwarted that progress last year by reopening the WOTUS regulations, plunging producers into a regulatory red tape nightmare once again.

To address this uncertainty, we respectfully ask your Administration to:

- Reverse its position and allow the overall objective of the Clean Water Act to be realized: to restore and maintain the integrity of the nation's navigable waters.

Refocus EPA on Sound Science:

Exacerbating an already untenable position for American agriculture, the Environmental Protection Agency (EPA) has recently made decisions impacting the abil-

ity of producers to access crop protection tools necessary to combat pests and disease and improve soil health. These decisions include, but are not limited to, EPA's decision to prohibit the use of chlorpyrifos on food crops grown in the U.S., recent biological evaluations (BEs) and proposed interim decisions (PIDs) for a variety of crop protection tools, and the reversal of longstanding policy relating to Federal preemption. This Administration's decision to undermine its career scientists has created additional uncertainty for producers, leaving them without readily available alternatives for key planting decisions.

The politicization of crop protection tools was further heightened in a May 2022 Solicitor General's brief in the case of *Monsanto Company v. Edwin Harderman* regarding the doctrine of Federal preemption. In the brief, which was submitted at the request of the Supreme Court, the Solicitor General surprisingly reversed course on the Federal Government's once consistent and scientifically-sound position regarding the labeling of pesticides. On May 23, 2022, fifty-four agricultural groups sent you a letter expressing their "grave concern" with the Solicitor General's brief and the "change in long-standing policy regarding the regulation and labeling of pesticide products relied upon by farmers and other users."

American farmers use glyphosate on roughly 40 percent of their acres, helping to enable higher productivity, greater yields, and improved soil quality. At this vital time when our producers are striving to feed a world threatened by food shortages and insecurity, this reversal of policy further undermines the ability of U.S. agriculture to meet global food needs.

To return EPA to its science-driven, risk-based, Congressionally mandated review process for these and all other critical crop protection tools, we request the Administration:

- Rescind the EPA's August 2021 final rule revoking food tolerances for chlorpyrifos;
- Proceed with reviewing current uses under the ongoing registration review of this chemistry;
- Reassert EPA's clearly defined Federal preemption of crop protection tools and immediately withdraw the Solicitor General's current brief before the Court.

End Onerous Climate Rules:

The war on agriculture has even expanded to other Federal agencies, most recently through the proposed Securities Exchange Commission (SEC) rule, "The Enhancement and Standardization of Climate-Related Disclosures for Investors," issued on March 21, 2022. This rule, through so-called scope 3 emissions, would require farmers, regardless of size, to track and report data to the companies with which they work. Many small farmers do not have the time or resources to comply with such onerous requirements. During a time when this Administration purports to support deconsolidation in the agricultural system, this rule would result in the exact opposite.

- To prevent increased costs and risks for producers and consumers, we request that your Administration withdraw this harmful rule.

In short, your Administration's Federal regulatory barriers and policies are undermining America's ability to meet the food and fiber needs of the globe by creating uncertainty for U.S. farmers and ranchers. We cannot afford to continue without a comprehensive plan to reverse course on this destructive agenda and address this crisis. *We request that you immediately meet with Congressional Members to develop a plan that restores domestic production and allows American farmers to lower food prices at home and provide critical humanitarian aid abroad.*


Sincerely,



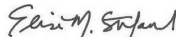
Hon. KEVIN MCCARTHY,
Republican Leader



Hon. GLENN THOMPSON,
Republican Leader
House Committee on Agriculture



Hon. STEVE SCALISE,



Hon. ELISE M. STEFANIK,

Republican Whip


Hon. ANDY HARRIS,
Ranking Member
 Subcommittee on Agriculture Appropriations



Hon. ERIC A. "RICK" CRAWFORD



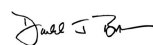
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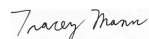
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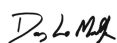
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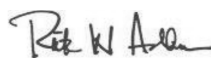
Hon. AUSTIN SCOTT,



Hon. SCOTT DESJARLAIS



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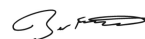
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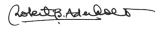
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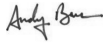
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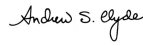
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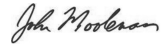
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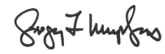
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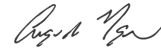
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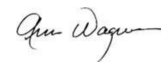
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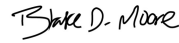
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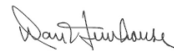
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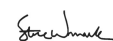
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SUPPLEMENTARY MATERIAL SUBMITTED BY JULIA ASHERMAN, OWNER, RAG & FRASS FARMS, LLC; ON BEHALF OF NATIONAL YOUNG FARMERS COALITION

Date: July 22, 2022

Hon. DAVID SCOTT,
Chairman,
House Committee on Agriculture,
Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
House Committee on Agriculture,
Washington, D.C.

Re: A 2022 Review of the Farm Bill: The State of Credit for Young, Beginning, and Underserved Producers before the U.S. House of Representatives Committee on Agriculture

The National Young Farmers Coalition (Young Farmers) thanks the U.S. House of Representatives Committee on Agriculture, and the Honorable David Scott, Glenn 'G.T.' Thompson, for holding the hearing on July 14, 2022 to discuss the challenges facing young, beginning, and underserved producers in accessing credit.

Please find below additional written testimony from witness Julia Asherman, Owner and Operator of Rag and Frass Farm in Jeffersonville Georgia, in response to questions posed during the hearing.

Insert 1

Mr. AUSTIN SCOTT of Georgia. . . .
. . . How far do you have to travel to get to a farmers' market, Ms. Asherman? Ms. Asherman?

The CHAIRMAN. You may need to unmute, Ms. Asherman.

Ms. ASHERMAN. I am sorry, my internet is extremely slow. I was trying to unmute. I drive 2 hours to my major market, and I also sell on the farm and a half an hour away [inaudible] market.

Mr. AUSTIN SCOTT of Georgia. . . . And as our farmers' markets have closed, just like as our smaller meatpacking facilities have closed throughout Georgia, it has made it that much more difficult for our beginning, young, and small farmers. . . .

Thank you, Representative Scott, for your question and for your warm introduction. To clarify, I do not believe I have had the pleasure of showing you around my farm, I think you are mistaking another small farm in Gordon, GA (about 20 minutes from me) that you toured during a round table I participated in. I have had the pleasure of touring some staff of yours around my farm, but I would love to have you out to see our operation. You have an open invitation for anytime you are available.

As I said in my testimony, I travel 2 hours for my main market, and I travel half an hour for my local market. What I would like to clarify is that I started to go to my further market, which is much bigger, in 2015 because our local market was too small, it couldn't sustain our business. Now our bigger metro market subsidizes our smaller local market. Many direct market farmers travel 30 minutes to 2 hours to reach the best markets, in my case I had to be far away from my market to find affordable land. Conversely, farmers located close to great markets will often not be able to afford land. You can either have affordable land or proximity to markets, but you can rarely have both.

Thankfully, because I direct market and I sell at smaller community-based markets which are operated by farmers, local nonprofits, or by local government, they are more nimble and resilient, and very close the end consumer we are selling to. I would say that USDA programs that support local markets and small-scale aggregation is incredibly important to this type of market's continued success, and by extension, the success of the farmers who rely on them. This type of market gives us a bit of resilience to supply chain disruptions or bigger market disruptions, and affords us the maximum margin for our products, which is key to most vegetable operations that are less than 10 acres.

Insert 2

Mr. CRAWFORD. Well, and I don't want to get into a dynamic of where we are talking about "corporate farms," quote/unquote. I am not here to try to paint a negative picture of economies-of-scale. We rely on those economies-of-scale. What I want to do is to talk about how we get that young person. I mean, as

I said, I think you tend to be a little bit of an exception to the rule when we see a continued upward trajectory in that age. And then, on the other side of the spectrum, you look at Ms. Asherman, who is on small acres and that is another success story, again, probably a little bit of an exception. I am going to ask Ms. Asherman to kind of weigh in on this as well. What have some of the challenges been for you? It is probably not so much access to capital as it is to the competitive disadvantage you find yourself in because you are starting from a position of not being an economy-of-scale? Do you want to weigh in on that, Ms. Asherman?

Ms. ASHERMAN. I do. I will say that I think it is important to clarify that when we talk about small farmers, we need to clarify are we talking about small acreage or small gross sales? And there is a big difference between a commodity grower, a row crop grower, and a direct produce market grower.

Thank you for the question. I believe this question is extremely important to address and also offer a huge opportunity for course correction in policy. Firstly, the key to addressing moving the needle on the average age of farmers is recognizing that there needs to be multiple angles and tactics to address this. One obvious place to start is we need policy that helps existing farmers transition their operations to the next generation within the family farm structure; this means legal support, financial planning and education, business support and training around the specific issue of farm succession.

However, most of the U.S. population (close to 80%) lives in urban areas. This means the future farming generation cannot be expected to exclusively (or even mostly) come from rural communities, or come from farming families. Of course, wherever this is possible it must be supported, but the fact is there are more people being born and growing up in cities than in rural America, and that much of rural America is aging. Young people today often want to get out of the country and away from the farm. There needs to be policy in education, workforce development, and that incentives and supports young people to learn to farm and return to the country to farm. Without this step, there will not be enough farmers. We can't expect that all the doctors our county needs will be the children of doctors, and we can't expect that all the farmers will be the children of farmers, not while we have lost so many farms and farmers over the last century. The more farm bill policy can redirect young people to the support resources, encouragement, skills, and credit to buy farms or start new farms, the more we will see new farmers join the industry and succeed. This could have a huge benefit not only to the future of food security, but to the rural development, farming innovation, and strengthen the economy. In addition to existing farmland being preserved, we should be open to new farms popping up wherever the opportunities arise. There are many opportunities for small farms in many parts of the county.

Farming is a skill that will always be honed by years of experience, but it is a skill that can be learned, like any other. It is a myth that that only those who grew up on farms can be successful farmers, and this is a myth we need to let go of immediately. Some of us are many generations removed from the farm, but nearly every human alive is descendant from farmers, and we have not adequately given good reasons for young people to choose farming over other, easier occupations.

To lower the average age of farmers (and decentralize farms, making agriculture on the whole more resilient to ownership changes) we must support succession planning for existing farms, incentive farming overall, and open the doors to first generation farmers all at the same time.

For your second question, I believe the biggest challenges for my farm was the steep learning curve, with little mentorship to get started. I spent many years working harder, not smarter, for lack of examples. I spent time reinventing the wheel instead of making strides.

I think it is an oversimplification to assume smaller farms have a competitive disadvantage. A farm of any scale (micro to large) can be profitable and successful, or can go under. A key point of any farm's success is having the appropriate economy of scale—in labor, production, equipment, and capitalization. Being smaller can certainly afford certain challenges, but likewise being too large can as well; it all depends on if all the factors of your economy of scale make sense. In many ways I feel being a smaller farm has made me more successful, and more competitive, because I am not over-burdened by debt, I am not over capitalized. I am not beholden to huge payments that are hard to manage in a bad year. My biggest challenge as a farm is labor, which honestly is as much about being a vegetable farmer as it is about being a small farmer. I am not big enough to need certain planting equipment, but even if I was, harvest is still by and large by human hand . . . so the labor issue plagues vegetable farms of **all** acreages.

Insert 3

Mr. MOORE. . . .
 . . . but what do you see as the largest barrier to entry for young farmers and obviously underserved producers?

* * * * *

Ms. PLASKETT. . . . The other question I have, Ms. Asherman, thank you so much for being a part of the hearing this morning and for the work that you are doing. In 2017, the Census of Agriculture, 88 percent of farmers in my district in the U.S. Virgin Islands were over the age of 45. Can you speak about effective methods to educate and grow the future generation of farmers, as well as encourage their continued participation in the agricultural space?

Thank you for the questions, and since they are similar I will answer them together. The barriers are many and varied, and the policy needs to address each to really full serve young farmers.

Land access is huge, and can be address by improving access to credit as has been discussed. I believe the other key is incentivizing both land owners and farmers. Can land owners be rewarded to rent or sell land to new farmers? Or to keep farm land undeveloped? Can young farmers be encouraged to stay (or go into) farming with affordable healthcare or education? Can learning to farm specifically, be more affordable and accessible?

Currently, it is well known that to enter farming means large amounts of debt, stress, little financial return, physical or mental risks, no vacation, potentially no healthcare, and potentially taking a second job or relying on spousal income for basic benefits like retirement or health insurance. Can you pay for your kids to go to college? Possibly not without non-farm income. If this is the reality for many, and certainly a well-known possibility for most, why do it? Why choose farming over something else? This reality is what needs to change to make farming a viable choice.

Insert 4

Mr. DAVIS. . . .
 . . . if new and beginning farmers do not have continued access to ag-lending entities like the Farm Credit System, what could the future of your operations look like, and do you see it as a barrier to entering the field?

For my farm, at the stage in my business I am in, not having access to credit would be devastating. I do not go into debt easily, so every loan I take at this point is very carefully considered for at least a year. I have worked hard with few resources to establish my business for enough years now that I need it to get easier and continue to get more efficient. Credit allows me to upgrade my equipment, replace it if necessary, and make real improvements to my infrastructure to reach a better economy of scale where I can be more profitable and efficient. I don't need to keep my head above water, I need to be able to swim and make progress. My farm is in its 'teenage' years; it has gotten off the ground, survived and the ball is rolling, but I need to continue to reinvest so it can sustain us for the long haul of my career, maybe even for the next generation.

Not having credit is a barrier to entry, and not having credit throughout the evolving life of a new farm business can be devastating too. Honestly, I am tired from years of running a farm. Now that I have a young child (6 months old) I see that it is not enough just for the farm to exist despite every sacrifice. It also needs to provide a decent quality of life for my family so that I *want to do it* for the rest of my career. To avoid burnout, the farming needs to get better and easier with age, and credit helps us to do that as we make smart investments in our infrastructure.

Sincerely,

JULIA ASHERMAN,
Owner and Operator of Rag and Frass Farm.

[ATTACHMENT]

Date: July 22, 2022

Hon. DAVID SCOTT,
Chairman,
 House Committee on Agriculture,
 Washington, D.C.;

Hon. GLENN THOMPSON,
Ranking Minority Member,
 House Committee on Agriculture,
 Washington, D.C.

Re: A 2022 Review of the Farm Bill: The State of Credit for Young, Beginning, and Underserved Producers before the U.S. House of Representatives Committee on Agriculture

The National Young Farmers Coalition (Young Farmers) thanks the U.S. House of Representatives Committee on Agriculture, and the Honorable David Scott, Glenn ‘G.T.’ Thompson, for holding this hearing to discuss the challenges facing young, beginning, and underserved producers in accessing credit.

The National Young Farmers Coalition works closely with young farmers across the country to understand the challenges they are grappling with in pursuing their farming dreams, growing food for their communities, and stewarding our natural resources. Young farmers are passionate and resilient, managing increasingly severe climate change impacts, a pandemic, and economic pressures from inflation, highly competitive real estate markets, and the burden of debt—especially from student loans. Despite all of these challenges, they persist. But there are limits to this resilience.

Young Farmers Struggle to Access Capital & USDA Programs Are Not Reaching Them

Farming is a capital-intensive undertaking. The majority of current farmers identify as first-generation, meaning that they most likely did not inherit farmland, infrastructure, or equipment, and/or training from their families.¹ Land, tractors, fencing, housing, and other farm infrastructure needed to grow a successful farm operation are extremely expensive, and when coupled with the burden of student loan debt, or lack of existing credit, access to capital can be a major barrier for building a successful farm career.

In our previous two National Young Farmer Surveys of young farmers and ranchers around the country, we have heard that access to capital is consistently a challenge. It is also one of the key reasons that young people are leaving agriculture. For farmers of color, who have faced years of discriminatory lending, been subject to policies preventing them from building generation wealth, and been prevented from utilizing USDA programs, credit access is an even greater challenge.²

USDA’s Farm Service Agency (FSA) offers low interest rate loans that are designed to make credit available to our nation’s farmers and ranchers, but only a small percentage of young farmers are using these programs. In our 2017 survey, only five percent of current farmers listed USDA Farm Loan Programs as the most helpful policy, program, or institution to them. The FSA Operating Microloan is the most streamlined of the loan programs, but less than 20 percent of farm owners reported using the program. This was followed by the Farm Ownership Loan programs (13%) and Farm Operating Loan Programs (11%).³

We must deliver equitable land access and transition policy change in this next farm bill, and improving access to credit is a critical component of this work. Without it, the diversity and resilience of our food and farming systems is at risk, and thus the security of our food supply. The early months of the pandemic clearly highlighted the incredible importance of smaller scale farms serving local and regional foodsheds. We need this new generation to be successful. **We need farmers like Julia Asherman, Owner and Operator of Rag and Frass Farm in Jeffersonville Georgia to flourish, to grow fresh, high quality foods for their communities.**

But as you heard from Julia’s testimony during last week’s hearing, the difficulty of accessing credit, and thus the difficulty of finding secure land access, put young farmers on thin ice, forcing them to rely on luck and the sheer will to persist. We have outlined below some of the top challenges that young farmers face accessing credit and a number of policy solutions that we believe can help them succeed. These policy recommendations come from Young Farmers as well as our partners.

Key Credit Challenges Facing Young Farmers

- **Competing in the real estate market**
- **Discrimination and disproportionate challenges for young farmers of color**
- **Young farmers operate unique, diversified farm operations**

¹National Young Farmers Coalition, *Building a Future with Farmers II*, 2017, www.youngfarmers.org/wpcontent/uploads/2018/02/NYFC-Report-2017.pdf.

²GAO, “Agricultural Lending: Information on Credit and Outreach to Socially Disadvantaged Farmers and Ranchers Is Limited,” July 2019, <https://www.gao.gov/assets/gao-19-539.pdf> and Vann R. Newkirk II, “The GreatLand Robbery,” *The Atlantic*, September 2019, www.theatlantic.com/magazine/archive/2019/09/this-land-was-our-land/594742/.

³*Building a Future with Farmers II*.

- **Access & paperwork burdens**
- **Lack of uniformity and application of programs in local offices**
- **Access to housing**
- **Starting and growing a farm operation**

Detailed Challenges & Policy Solutions

Competing in the real estate market

Land values are rapidly increasing and the real estate market is incredibly difficult for young farmers to compete in. Farmers have seen steadily rising real estate values that are out of sync with what it is possible to produce on the land.⁴ In 2016, the ratio of real estate value to production value was the lowest it has ever been with \$1 dollar's worth of farm real estate generating just \$0.16 in production.⁵ This dynamic has only been exacerbated since the COVID-19 pandemic, with individuals looking to move out of urban areas and invest in rural real estate.⁶ Young farmers and ranchers are being outbid by cash purchases and land transactions that happen faster than they can access credit through FSA or other agricultural lenders.

We have heard from numerous young farmers that FSA Land Ownership loan programs simply are not working for them in this real estate market. The waiting time and paperwork required, as well as the necessity for a legal description of the property, means that in practice these FSA loans are primarily accessible to farmers who can find a landowner willing to accept the delays of the FSA process. Some landowners—particularly retiring farmers without many savings—simply are not in a financial position to wait. This also has equity implications, given that 98 percent of U.S. farmland is owned by white individuals, and therefore white farmers are much more likely to have access to networks of landowners who they have a close relationship with or who will work with them through the FSA process.⁷

Access to real estate matters. Land ownership provides the security that is critical for many of the long-term investments that farmers must make in soil health, infrastructure, and irrigation. Being able to plan on a timeframe over which farmers can realize a return from activities such as drilling a well, building soil organic matter, or pouring concrete in produce handling areas can significantly improve profitability, environmental impacts, and food safety. The stability that comes from land security can also have immense impacts on farmer mental health and resiliency in the face of the many challenges of farming.

A 2018 USDA report found that farm real estate is a substantial share of total household wealth and is the most important source of equity used to secure loans. During periods of land appreciation, farmers who owned a greater share of their farmland—who tended to be older, more experienced farmers—gained more wealth and land than similar farmers who rented more of their land. Renters, unlike landowners, do not enjoy wealth gains from land price appreciation. Instead, rents usually rise along with land values, raising operating costs. The authors also found that, “the gradual transfer of land between generations . . . may slow during periods of rapid appreciation.”⁸

Given these challenges, it is urgent that Congress take action to improve the speed and accessibility of FSA loan programs to help young farmers compete in the real estate market. As Julia pointed out in her testimony, the current process is slow, with many steps going back and forth, and no pre-approval option.

Recommendations

- **Establish clear processes and structures to implement a pre-approval mechanism for Farm Service Agency Direct Farm Ownership Loans.**

⁴“Farmland Value,” USDA ERS website, accessed July 2022, www.ers.usda.gov/topics/farm-economy/land-use-land-value-tenure/farmland-value.

⁵“Farm Real Estate Pricey Compared to Income?,” Agriculture Economic Insights, website, accessed July 2022, www.ageconomists.com/2017/09/11/farm-real-estate-pricey-compared-income/.

⁶Liz Dunn, “How ‘Fairy Tale’ Farms are Ruining Hudson Valley Agriculture,” *New York Times*, June 2022, www.nytimes.com/2022/06/09/nyregion/hudson-valley-farms.html and Greta Moran, “Beginning Farmers, Farmers of Color Outbid as Farmland Prices Soar,” *Civil Eats*, January 2022, <https://civileats.com/2022/01/03/beginning-farmers-farmers-of-color-outbid-as-farmland-prices-soar/>.

⁷National Young Farmers Coalition, *Land Policy: Towards a More Equitable Farming Future*, 2020, www.youngfarmers.org/land/wp-content/uploads/2020/11/LandPolicyReport.pdf.

⁸Christopher Burns, Nigel Key, Sarah Tulman, Allison Borchers, and Jeremy Weber, *Farmland Values, Land Ownership, and Returns to Farmland, 2000–2016*, USDA ERS, Economic Research Report Number 245, February 2018.

Currently, farmers are required to provide a legal description of the property they wish to receive financing for in order to begin working with FSA—in practical terms, this means a contract for purchase. The majority of sellers, however, will refuse to sign a contract and forego other potential purchase offers until they see proof of pre-approval or pre-qualification from buyers. This means that farmers who have identified available land and may otherwise be ready to make the purchase are unable to move forward and often lose out on the opportunity. Most private lenders offer some form of pre-approval or pre-qualification, but FSA does not.

FSA recognizes the seasonality of farming by allowing farmers to make their loan payments on an annual basis and should extend this understanding by offering a pre-approval mechanism that would allow farmers to complete paperwork and begin the credit access process in their down season so they are ready to jump on a land opportunity at any time that it becomes available.

In order to extend scarce funds and resources, FSA lending currently leverages lending from private banks. Congress could consider a similar model of partnership with private lenders for creating the capacity to offer pre-approval.

- **Index the Direct Farm Ownership Loan limit to rising land values.**

In the 2018 Farm Bill, Congress increased the Direct Farm Ownership Loan Limit to \$600,000 and indexed Guaranteed Direct Farm Ownership Loans to inflation. The farm bill does not, however, address the rising land values for farmers depending on the Direct Ownership Loan. In order to continue serving the needs of young and economically distressed farmers as land prices continue to rise, the Direct Farm Ownership loan limit should be tied to regional farm real estate valuation. This data could come from the annual ERS reporting on agricultural real estate values and be geographically specific. In indexing the loan limit to land values it is critical to maintain a floor of \$600,000.

- **Allow Socially Disadvantaged and Economically Distressed farmers who access credit elsewhere to refinance with FSA to secure affordable, long-term financing.**

Accessing credit elsewhere may be more immediately helpful to overcome the fast-paced demands of the current real estate market, but these loans can burden farmers with high interest rates down the road. By creating flexibility for Socially Disadvantaged and Economically Distressed farmers to access credit at the most accessible and fast-paced option, but then allowing them to refinance with FSA at a later date, will set them up for longer-term success and business viability.

- **Increase FSA capacity & ensure FSA staff reflect the full diversity of the communities they serve.**

Another critical aspect of ensuring that FSA programs continue to meet demand and help farmers compete is to ensure that all county offices are adequately staffed to meet producer needs and that FSA county office staff reflect the full diversity of the communities that they serve.

Discrimination and disproportionate challenges for young farmers of color

USDA's documented history of discrimination, particularly when it comes to lending, has contributed to the disparity in access to credit experienced by young farmers of color. The debt relief offered in the American Rescue Plan was a necessary and important step, but farmers are still waiting to see this funding be made available to them as a result of numerous legal challenges. While farmers with direct loans from FSA have been instructed to pause payments, those with guaranteed loans are left out and are at risk of default. Further, the longer that this current situation continues, the greater the threat of having to make all those delayed payments at some point, if the American Rescue Plan funding does not materialize.⁹

- **FSA should explore and act on all options available to protect guaranteed loan borrowers, including loan servicing, restructuring actions, and buying back guaranteed loans, to secure debt relief for Socially Disadvantaged and Economically Distressed borrowers.**
- **Ensure robust accountability and transparency at the local level in the civil rights process, including continuing to collect relevant data on the Farm Service Agency's lending outcomes, particularly as they relate to**

⁹See: <https://www.gao.gov/assets/gao-19-539.pdf> and <https://crsreports.congress.gov/product/pdf/R/R46768>.

Socially Disadvantaged and Economically Distressed farmers and ranchers.

- **Expand funding for, and effectively implement, the Indian Tribal Land Acquisition Loan Program and the Highly Fractionated Indian Land Loan Program.**
- **Ensure that tenants in common have a clear path to eligibility for direct or guaranteed farm ownership and operating loans.**
- **Create a down payment grant program for Socially Disadvantaged and Economically Distressed borrowers.**
- **Echoing the recommendations of the Federation of Southern Cooperatives and Alcorn State University, create a Black farmer financial institution modeled on Farm Credit to support and resource these farmers.**

Young farmers operate unique, diversified farm operations

Young farmers are more likely to be farming using organic or sustainable practices; diversified; small-scale; focused on specialty crops; selling direct-to-consumer; first generation; and to be women, queer, or farmers of color.¹⁰ They are also increasingly likely to be farming in cooperative or non-family operations. The result is that young farmers run operations that may not look like traditional farm models that FSA loan officers are accustomed to. Additionally, given the high costs of land and other farming inputs, as well as a desire to be connected to their communities, many young farmers rely on elements of agritourism to support their farm operations.

Recommendations

- **Ensure USDA programs support the diversified farm operations that young farmers are running, including considering income from agritourism as part of their overall financial picture.**

Agritourism income is not currently recognized by USDA loan programs as eligible income, yet for many, this is an incredibly important part of their overall financial viability and a way to be more engaged with their communities. USDA should recognize this income as part of young farmers' financial position in considering providing financing to them.

- **Invest in alternative lenders, such as CDFIs, to provide more affordable financing options.**

CDFIs are trusted, community-based lending institutions that often have flexibility to work with farmers. California FarmLink, Self-Help Credit Union, Coastal Enterprises Inc., and the Indian Land Capital Company are examples of organizations providing flexible, accessible financing to farmers who know and trust the organization. Increased funding and flexibility for the Healthy Foods Financing Initiatives (HFFI) at both the CDFI Fund and at USDA will help CDFIs to build their healthy food lending work.

- **Support cooperative and collective ownership models and establish lending guidelines for farmer cooperatives.**

As farmers grapple with the challenges of accessing land, patterns of ownership and access may look different than they have in the past. Policies and programs should recognize farmers' need for land security while supporting models of cooperative and collective land ownership or working into ownership over time, among other strategies.

- **Ensure young farmer representation on county committees.**

County committees are important decision-making bodies at FSA and should be inclusive of next generation farmers, particularly Socially Disadvantaged and Economically Distressed farmers. Reform the county committee process to increase inclusion by clearly disseminating election guidelines, enforcing term limits, and changing statute so that all farmers who are eligible for USDA programs are eligible to run and vote in county committee elections. These reforms should include reporting to measure outcomes.

Access & paperwork burdens

We have heard from our network that many farmers *want* to apply to FSA loan programs but do not have enough experience or income from farming to meet FSA's requirements. Likewise, they may start the process but be overwhelmed by the amount of paperwork involved. They may also be constrained by poor, or limited,

¹⁰*Building a Future with Farmers II.*

credit history. FSA can help these farmers gain access to credit through simplified loan program offerings with lower lending limits and significantly reduced paperwork.

- **Waive collateral and experience requirements for FSA Microloan programs of \$10,000 or less for small-scale farm financing needs.**

While the USDA Microloan programs are incredibly helpful to producers, there is still a need to help some small-scale farmers begin to build credit and their relationship with FSA as a lending institution. By waiving some of the collateral and experience requirements for FSA Microloans of \$10,000 or less, the Agency can assist farmers in beginning the process of building credit and accessing FSA programs with minimal paperwork.

- **Ensure FSA services are easily accessible online.**

Continued modernization and online accessibility of FSA services, including remote loan servicing, is incredibly helpful to young farmers. This helps to ensure that they can easily apply for credit and understand their financial picture without traveling in person to an FSA office. This may also allow them to work with loan agents who better understand their operations, access FSA services during the farming season when traveling to an office in person is difficult, and generally have more ease of access to credit.

Young farmers are burdened by existing debt, particularly student loan debt

Farming is a capital intensive and risky undertaking, and accessing credit for farming is already difficult. When saddled with thousands of dollars of student loan debt, many young farmers are denied loans to launch or grow their farm businesses. After land access, student loan debt is the most significant challenge to young farmers—we hear again and again that student loan debt is keeping young people from succeeding in agriculture.

Recommendations

- **Establish a pilot Debt Consolidation and Buy-Out Program within FSA, to facilitate refinancing and debt management for Socially Disadvantaged and Economically Distressed farmers.**
- **Pass Federal legislation to help farmers manage their student loan debt so they can better access capital for land purchases.**
- **Establish guidelines so that potential Socially Disadvantaged and Economically Distressed borrowers are not restricted based on a previous debt write-down or other loss within FSA's loan programs.**
- **Ensure that Socially Disadvantaged and Economically Distressed borrowers who miss a payment are still eligible to access FSA funds.**
- **Eliminate the waiting period for Socially Disadvantaged and Economically Distressed borrowers resolving tax lien issues on land.**

We have heard that farmers who are resolving tax lien issues on land have been told to wait a period of years following the clearing of title before they can access FSA programs. This policy negatively impacts farmers who need to take every opportunity they can to access land as quickly as possible. FSA should inspect this practice and ensure it is removed as a barrier.

Lack of uniformity and application of programs in local offices

One challenge that young farmers face is lack of uniformity among local FSA office staff in program awareness and implementation. Increased FSA staff capacity, hiring FSA staff who reflect the full diversity of farmers they serve, providing increased training, and a focus on culturally-appropriate services will all help alleviate this.

One particular example that we have heard is that alternative certification, used to help Indigenous producers access FSA programs, is unevenly applied and understood by FSA loan officers. We also know that the Land Contract Guarantee Program should be more widely utilized. It creates a helpful way for young farmers to access land without requiring them to work directly with a lender, yet this program has very low adoption.¹¹ We have also heard from farmers about uneven adoption of the credit elsewhere test, with some FSA offices requiring paper documentation and others not. This creates confusing and inequitable standards for producers.

¹¹In 2019, the National Sustainable Agriculture Coalition reported that only two land contract guarantee loans had been administered by FSA since 2012, <https://sustainableagriculture.net/publications/grassrootsguide/farming-opportunities/contract-land-sales/#action>.

Solutions include additional government resources for coordination and accountability; increased resources to help farmers navigate USDA programs and bring complaints to higher levels of government; and continued funding of programs like the Heirs' Property Relending Program, that provide resources to community-based organizations to serve their members' needs directly.

- **Establish a new office and coordinating position within the FPAC mission area, focused on equitable access to land and centering the needs of small-scale, beginning, urban, Socially Disadvantaged, and Economically Distressed farmers.**

Implement high-level oversight at USDA to ensure there is coordination among departments within the agency as well as with other agencies across the Federal Government so that programs are working together to facilitate transition and access for young farmers.

- **Increase training for FSA office staff.**

Ensure that FSA office staff are receiving robust training on program implementation, specifically around programs that impact young, Socially Disadvantaged, and Economically Distressed producers.

- **Increase support for the Beginning Farmer and Rancher Coordinators.**

Having an identified Beginning Farmer Coordinator in every state and a National Coordinator position in place has been extremely helpful in elevating farmer complaints and challenges, and seeing results in those challenges being addressed. Continued funding and support for these coordinator positions is critical, including increased national-level staffing.

- **Continue funding cooperative agreements with community-based organizations.**

Cooperative agreements with community-based organizations provide critical additional capacity outside of USDA to help farmers access and navigate USDA's programs. In 2020, National Young Farmers Coalition received funding to help conduct outreach about the CFAP 2 program. This program met a serious need among young farmers, yet in our outreach to hundreds of farmers, we learned that 50 percent had not heard of the program. Through our outreach, we helped them apply and receive program funds, increasing the capacity of USDA support to reach farmers. These kinds of outreach efforts around FSA credit programs are particularly important and should continue to receive funding.

- **Provide continued, and increased, funding for the Heirs' Property Relending program.**

Created in the 2018 Farm Bill, this program is a critical step in providing funding to producers to address land and credit challenges through trusted community-based organizations. This adds additional, culturally-appropriate capacity to the USDA's ability to reach producers. Congress and USDA should ensure that the implementation costs these organizations shoulder are eligible under the program and continue supporting them in doing this important work.

Access to housing

Lacking access to affordable farmland and, therefore, the ability to live on-farm, young farmers often rent housing near their leased farm property. Compounded by difficulty accessing land and credit, housing presents a significant challenge for new farm owners as they establish and grow their businesses. For farmers who are not farm owners, the challenge of housing can be especially acute. According to the National Rural Housing Coalition, 60 percent of the estimated three million farmworkers in the U.S. are in poverty—five times the national average.

- **Ensure that the USDA FSA is coordinated with other agencies, including Rural Development, to connect housing, land, and credit access challenges.**

USDA programs should be coordinated and working together to ensure that the various programs and loan products available to farmers can help address the interconnected challenges of access to land, housing, and credit.

Starting and growing a farm operation

Access to capital is critically important, but debt is a burden that requires careful management. Farmers just starting out are faced with the need to invest in multiple aspects of their operations at once—with land often being the highest cost and priority. The Federal Government can help them by providing capital that considers their operations and needs holistically.

- **Scale up existing programs to expand support for “wrap around capital” that combine business technical assistance with affordable financing.**

It is critical that farmers have assistance in demonstrating a strong business plan in order to access credit. This is particularly true for farmers who have been denied funding.

- **Review the ability of FSA borrowers to build their credit score as they are borrowing.**

As Julia pointed out in her testimony, despite repaying Federal student loans and making payments on two current FSA loans, she still did not have a credit score. She learned that apparently Federal credit debt does not contribute to credit scores. This means that regardless of her good standing on her loans, if she were to go to a traditional lender, they may be unlikely to lend to her, or they may offer her the highest interest rate on the least favorable terms. This should be reviewed and addressed so that young farmers can build credit while they are paying back FSA loans.

- **Ensure that farmers who pay off their FSA loans early are not required to graduate from FSA loan programs.**

Young, Socially Disadvantaged, and Economically Distressed borrowers should still have the opportunity to access FSA's favorable interest rates even if they are able to pay off one of their loans early. Early payment indicates building momentum towards financial stability and success, something FSA programs should continue to foster and encourage rather than shutting the door on.

Support beyond credit

Congress must make pathways to finance more widely accessible to young farmers and ranchers who have invested their time in building their farming skills rather than their net worth. We urge reframing the Federal Government's role in access to credit as an investment in the next generation of farmers, rather than simply lending funds that must be paid back. Above all, we urge Congress to think about how it can support young farmers holistically—credit is part of the answer, but not the entire solution. While debt can be an investment, it can also be an incredible burden.

- **Direct significant funding to a new initiative that would make USDA funding available to eligible entities, including Tribes, municipalities, nonprofits, and cooperative entities with priority for projects led by, and benefitting, Socially Disadvantaged and Economically Distressed farmers and ranchers.**

This new initiative will be the first farm bill program to be designed from the start to invest in secure, equitable access to land for farmers. This will make funds available to community-led projects that create equitable land access outcomes and secure access to land for farmers who are growing food for their communities. This program may take the form of a long-term forgivable loan that incorporates support for housing, infrastructure, farmer training, and land stewardship practices. This funding should enable entities to act quickly in the real estate market by having preemptive access to funds.

As the average age of existing landowners and farmers increases and we face an impending transition of millions of acres of agricultural land, it is critical that Congress take action now to make this transition equitable and support the next generation of farmers and land stewards. The focus of the next farm bill must be on policies that enable equitable land access and transition, and access to credit is at the heart of this issue.

Young Farmers would like to thank Chairman David Scott, and Ranking Member Glenn 'G.T.' Thompson for convening this hearing to discuss the state of credit for young, beginning, and underserved producers, and for your consideration of this statement for the hearing record.

Sincerely,



HOLLY RIPPON-BUTLER,
Land Campaign Director,
National Young Farmers Coalition.

SUPPLEMENTARY MATERIAL SUBMITTED BY WILLARD TILLMAN, MEMBER OF THE
BOARD, RURAL COALITION/COALICIÓN RURAL

Insert 1

Ms. KUSTER. You had referenced the appeals process, and I just wondered if you would describe that and if there is anything that we need to do to fix that in the upcoming farm bill.

Mr. TILLMAN. The appeals process?

Ms. KUSTER. Appeals for denials of loans.

Mr. TILLMAN. Yes. There needs to be some type of structure there in the appeals process. A lot of times—

The CHAIRMAN. If I may, Mr. Tillman, the lady's time has expired, but if you would not mind submitting that in writing the really good idea you were about to express to—

Mr. TILLMAN. I would appreciate that. That I would appreciate.

The process to file an appeal is outlined on the National Appeals Division is outlined on their website: <https://www.nad.usda.gov/content/file-appeal>, including the following required information listed there:

“What your appeal request needs for processing:

1. *A copy of the adverse decision from the Agency that is the basis for your appeal (if available).*
2. *A brief description of why you disagree with the Agency's decision.*
3. *Appeal must be personally signed by the participant(s) identified in the adverse decision; it does not need to be notarized.*
4. *File your appeal request within 30 calendar days of receipt of the Agency's adverse decision.*

Appeal Request Form: *An appeal request form can be downloaded here.”*

Significantly, the Appeal Request Form includes the following statement:

“Reminder: *You waive your right to appeal an adverse decision if an appeal request is not filed within 30 calendar days of the date you received the adverse decision.”*

Thus, many producers may have already lost their right to appeal a decision if they did not act almost immediately, before they may have been aware of the right to appeal.

The process for review of appeals is outlined here: <https://www.nad.usda.gov/content/common-appeal-related-questions>.

The review is supposed to take place in less than 3 months but often takes longer. NAD does not have authority to enforce their decisions; this is left up to the agencies. In the case of operating loans, even if a farmer should win an appeal, and if even if FSA implemented that decision within 30 days, FSA has regulations that prohibit using information more than 90 days old, meaning the producer will have to resubmit an application, meaning that producer initially denied a loan due to agency mistakes is unfairly penalized for those mistakes, including being unable to get the loan until the next growing season.

Adding to the complexity is the fact that NAD does not have authority to address civil rights complaints, or complaints that fall under the jurisdiction of the inspector general. There are filing time issues related to each type of appeal or complaint, and there is no clear guidance comparing the processes, the purposes of each, the timelines and deadlines for each, and how the processes relate to each other.

Responses to complaints filed with the Assistant Secretary for Civil Rights or to the Inspector General are even slower, and in the latter case, a finding of fraud by the Inspector General may result in penalties for whomever committed fraud but does not provide a remedy to the producer injured by the fraud.

Thus, historically underserved and socially disadvantaged producers in particular, are provided little timely and clear guidance into how to resolve they many barriers they continue face. These processes are long, and rarely result in a positive result for the producer. We urge the Committee to hold a fuller hearing on the intersection of these process.

Most of all, we urge Congress to require annual reports that summarize the number of appeals and civil rights complaints annually filed, with a summary of how many were resolved and how many in favor of the agency, and how many in favor of the producer, and how promptly remedies were delivered.

Please see *Appendix 1* for a fuller discussion on the much wider list of factors that should be considered when evaluating the fairness of the lending process.

Insert 2

Mrs. HAYES. Well, thank you so much for that. And I want to be respectful of the time, but I will ask one last question if you could submit it, anybody on the panel. I am particularly interested in how Congress can reduce barriers for underrepresented farmers, for young BIPOC minority farmers. I am from the State of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, we have just some really creative things going on in the state that have not been accounted for in this industry. So anything you can offer in that area for how Congress can help, I would appreciate it.

With that, Mr. Chairman, I yield back.

The timely access to credit at the time a farmer needs it is essential to the success of almost any farming operation. Producers also need timely and fair access to the full range of related USDA programs for farmers as these programs help producers manage viable and sustainable operations and cash flow their loans.

Yet participation in the full range of USDA programs for farmers remains elusive for the majority of historically underserved producers. The data to fully understand and address the disparities in program access and service delivery remains a primary barrier to measuring and implementing accountability for fair access to service.

The largest number of discrimination claims settled with in the past 2 decades related to the discouragement of applications for USDA programs. To address this issue, in 2014 Farm Bill, Congress made mandatory the provision of a **receipt for service** to farmers to record all their requests for service and the agency response to their request, including an agency instruction on follow-up needed by the producer.

The USDA National Appeals Division recognizes that FSA's employees have a greater understanding of program requirements. Administrative Law Judges recognize and understand that "while a program participant is responsible for exercising due diligence in understanding the requirements of a program, NAD case decisions recognized that it is not reasonable to expect a program participant to have greater understanding of program requirements than FSA's own employees.["] This is why receipt for service is so critical to understand what farmers are told by FSA staff. It is also important to note that the receipt for service reveals what the farmer was not told in terms of program benefits and services. It is also possible through receipts for service for the agency to ascertain how this treatment is the same or different from what other farmers were told at the same time.

However, to this day, agencies routinely fail to provide the receipt for service to producers and discourage requests for this receipt. **This Committee should review the use of the Receipt for Service and adopt new measure to assure compliance by all local offices that serve farmers.**

The fact that a minority farmer participates in a private or Federal loan program does not automatically equal meaningful, fair participation. Some farm credit transactions run afoul of consumer credit statutes and we can attest to such examples evincing lending irregularities and discrimination. Therefore, participation in harmful discriminatory lending transactions is more detrimental economically than straight forward credit denial, especially when the loan is over collateralized, and a personal residence security interest is mandated but is unnecessary to secure the loan in question. Minority farmers understand that agriculture is a high economic risk industry and their reliance on fairness in credit transactions must be guaranteed by the lenders offering various credit options.

Farm lending, especially when directed by the government or guaranteed by the government, should be a consistent and evenly applied farm risk management toll. In accordance with 7 CFR 1779.63 and 7 CFR 4279.281 the U.S. Department of Agriculture and the Small Business Administration must make sure that lending irregularities and discrimination is not a part of any loan guaranteed by the government. Minority farmers confront the same floods, droughts, and market fluctuations as non-minority farmers. Inequities and irregularities within farm lending sector should not be held in the same farm risk category as natural disasters.

Preventing irregular and discriminatory lending practices—The current appeals and civil rights processes do not include a full review of critical loan transactional components that we have commonly found such as (a) excessive collateral requirements, (b) unwarranted late disbursement of loan funds, (c) misapplication or calculation of actual or average farm production, (d) evaluation of loan applications based the association of credit risk identified with third party non applicants, (e) directing or requiring borrowers to purchased equipment or inputs from entities related to the transactional lender, (f) suggesting or requiring under-funded or over

funded annual crop loans with the intent to gravely impact repayment ability, (g) appraisals that either low ball or high ball the value of land, and which are conducted at times by parties or for who are not disinterested in the transaction, (h) denying or forcing loan servicing options that diminish annual farm operations and loan repayment ability and (i) forced graduation from FSA loans. While not exhaustive, this list is a compendium of discriminatory or irregular lending conduct that is prohibited by the Equal Credit Opportunity Act, the Fair Housing Act, and the Dodd Frank Unfair Deceptive and Abusive Practices Act. The appeals and civil rights processes must be amended to allow the full range of deceptive and discriminatory practices are considered in the investigation and consideration of appeals and complaints.

The rising cost and low availability of land at present leaves historically underserved and beginning farmers and ranchers at a very vulnerable position in accessing they credit they need to enter farming, transition between generations, or to adapt their farming operation to change market and climate conditions. A loan provided early in the season, rather than after April each year, can make all the difference. Even the slow walking of completing an application, can leave a producer with the credit needed to secure a property, or to buy the inputs needed for a success production year.

Insert 3

Ms. PLASKETT. . . .

* * * * *

So I wanted to ask the witnesses, do you find your current application process to be timely, allowing individuals to pursue their goals having land within a year's framework? I was going to ask that question to Mr. Willard Tillman or Ms. Daña Davy, if you all have found any information about this.

The application process for credit is often very challenging for producers and does not allow timely pursuit of goals or accessing land within a year's framework, particularly in areas where land is quickly rising in prices. Incoming producers, and especially historically underserved producers, are often hit with excessive collateral requirements, and many other irregular or discriminatory practices noted above. An inequitable funded loan will imperil the producer for years to come.

Insert 4

Mrs. BUSTOS. . . .

* * * * *

Okay. I am going to move on to the whole panel then. Do you see ways for crop insurance and ag credit to work better for young and beginning and underserved producers? That is to the whole panel.

At present, many historically underserved producers produce crops poorly covered by existing crop insurance programs. A new microinsurance product is worth review. Producers are much more likely to use NAP or Livestock Indemnity which are critical to help the farmer pay loans in times of loss, or in the case of Livestock Indemnity, to replace collateral such as cattle when they are lost. Problems in the loss adjustment processes need to be addressed, including when loss of cattle washed away in flooding cannot be documented. An alternate process is needed. However, many times, the amounts paid out barely replace the cost of the insurance, also making the sale of products less beneficial to a crop insurance agent.

APPENDIX I

March 3, 2019

Hon. GENE L. DODARO,
Comptroller General,
 U.S. [Government Accountability] Office,
 Washington, D.C.

Re: SEC. 5416. GAO Report on Credit Service to Socially Disadvantaged Farmers and Ranchers

Dear General Dodaro:

I. Introduction

As the [Government Accountability] Office prepares to fulfill its duties under Section 5416 of Public Law 115-334, the 2018 Farm Bill, the undersigned organizations representing the agriculture lending interests of minority and socially disadvan-

taged farmers and ranchers encourage the adoption of methodologies that examine and evaluate farm lending policies having a negative impact on minority farmers and ranchers. The study's methodology should examine, from our perspective, and evaluate certain "unique" lending patterns, practices and policies that reliable sources, academic and legal, verifiably document as contributors to farm loan default, acceleration and foreclosure within the minority farming community.

The undersigned organizations over the years have reviewed thousands of loan documents and assisted hundreds minority farmers with loan servicing options. Before and after *Keepseagle, Love, and Garcia Pigford* Farmer settlements, the undersigned organization labored with minority and socially disadvantaged family farmers and ranchers in the areas of farm credit applications, collateral requirements, and loan servicing. As a collective of over 100 years of experience in family farm foreclosure prevention and farm wealth transition, we know firsthand the consequences of late loans, disparate treatment and disparate impact in loan servicing and other hidden farming lending discriminatory policies and procedures.

A history of loan service to our farmers gives us the knowledge and credibility to offer suggestions that *will accommodate efforts to determine other appropriate details of the study's methodology*. As you develop a methodology to gather and organize reliable report data to present to the House and Senate Agriculture Committee, consider farm loan practices from our practical and historical perspective. As delineated herein, our methodology suggestions find general acceptance in 7 U.S.C. 1983c which authorized the Secretary of Agriculture to implement pilot loan programs when there is a finding of loan program irregularities. This study is much needed as it will point out farm lending irregularities for the purpose of improving credit for all farmers. Farmers appreciate the fact that the legislative language mandates a product completion within 120 days of December 18, 2018, the execution date of the 2018 Farm bill.

II. Legislative Requirements

The statutory language requiring of the study is general and purposely vague. We point out the vagueness of the language, not as a criticism, but to augment the necessity of a broader methodology that captures real irregularities faced by minority farm borrowers.

Essentially, Section 5416. of Title V of the 2018 Farm Bill requires the Comptroller General of the United States to conduct a study to (A) assess the credit and related services provided by agricultural credit providers to socially disadvantaged farmers and ranchers; (B) to review the overall participation of socially disadvantaged farmers and ranchers in the services described in subparagraph (A); and (C) to identify barriers that limit the availability of agricultural credit to socially disadvantaged farmers and ranchers. Title 5416, Sec. 5416 of Public Law 115-334.

The language's general reference to terms like access, participation rates and barriers by implication suggests that the functionality of the methodology encompasses the time, place, manner of access, and foreclosures that may violate Federal laws if the irregularities are found to be within the consumer protection prohibitions of statutes like the *Equal Credit Opportunity Act (ECOA)—15 U.S.C. 1691-691f*; *Fair Housing Act (FHA)—42 U.S.C. 3601-3631*; *Dodd Frank Unfair Deceptive and Abusive Practices Act (UDAP)—12 U.S.C. Section 5531(d)*.

Even though not specifically mentioned, it is permissible that the study's methodology must be comprehensive to the extent that access, participation and barriers will be quantitatively and qualitatively articulated by examining or evaluating lending irregularities and discriminatory practices against relevant regulatory guidance of relevant consumer protection statutes. If a plain meaning interpretation of Section 5416 applies without permissible considerations, the data could be limited to the number of minority farm loans granted and denied and miss critical data on key issues such as lending patterns, policies and practices that have a disparate impact or serve as disparate treatment. Missing the real issues of farm loan irregularities and discriminatory terms and conditions may cause further extractions of land wealth from minority farmers while denying the same or similar viable, economically appropriate lending risk management tools offered to non-minority farmers and ranchers. We understand that not every aspect of a farm loan transaction can be studied. But critical irregularities must be studied. The Congressional intent of Section 5416 reveals that the results must inform and guide policy makers and practitioners on how to create program efficiencies while ensuring fair farm lending.

Reviewing overall farm lending participation rates does not address associated issues of barriers to participation such as fair and equitable participation. The fact that a minority farmer participates in a private or Federal loan program does not automatically equal meaningful, fair participation. Some farm credit transactions run afoul of consumer credit statutes, and we can attest to such examples evincing

lending irregularities and discrimination. Therefore, participation in harmful discriminatory lending transactions is more detrimental economically than straight forward credit denial, especially when the loan is over collateralized, and a personal residence security interest is mandated but is unnecessary to secure the loan in question. Minority farmers understand that agriculture is a high economic risk industry and their reliance on fairness in credit transactions must be guaranteed by the lenders offering various credit options.

Farm lending, especially when directed by the government or guaranteed by the government, should be a consistent and evenly applied farm risk management toll. In accordance with 7 CFR 1779.63 and 7 CFR 4279.281 the U.S. Department of Agriculture and the Small Business Administration must make sure that lending irregularities and discrimination is not a part of any loan guaranteed by the government. Minority farmers confront the same floods, droughts, and market fluctuations as non-minority farmers. Inequities and irregularities within farm lending sector should not be held in the same farm risk category as natural disasters.

III. Irregular and Discriminatory Lending Practices

The data collected for analysis, under Section 5416, must include loan transactional components such as (a) excessive collateral requirements, (b) unwarranted late disbursement of loan funds, (c) misapplication or calculation of actual or average farm production, (d) evaluation of loan applications based the association of credit risk identified with third party non applicants, (e) directing or requiring borrowers to purchased equipment or inputs from entities related to the transactional lender, (f) suggesting or requiring under-funded or over funded annual crop loans with the intent to gravely impact repayment ability, and (g) denying or forcing loan servicing options that diminish annual farm operations and loan repayment ability. While not exhaustive, this list is a compendium of discriminatory or irregular lending conduct that is prohibited by the Equal Credit Opportunity Act, the Fair Housing Act, and the Dodd Frank Unfair Deceptive and Abusive Practices Act. These aspects must be studied.

IV. Develop a Methodology from Applicable Consumer Credit; Civil Rights; Farm Credit Statutes and Regulations

The goal of this study is to collect data on access to fair credit since the lack of access to fair credit is the same as a barrier to credit. *We recommend that the study examines 8 (eight) standards.*

- (a) **Effects Test.**—The Equal Credit Opportunity Act and its implementing regulations found at 15 U.S.C. 1691, and 12 CFR 1002, Regulation B, may prohibit certain credit practices that are discriminatory in effect because the practice or policy has a disproportionately negative impact on a prohibited basis such as race, age, gender, *etc.* Under the effects test, the policy or practice of the creditor does not have the intent to discriminate. The lending practice, under the effects test, appears to be neutral on its face. It is the application of the policy or practice that presents the irregular, discriminatory disparate impact or disparate treatment problem for the minority or socially disadvantaged farmer borrower. For example, the lender informs non-minority similarly situated farm loan borrowers on the best and lowest price seed, tractors or fertilizer. Or the non-minority borrower may get detailed information on where to find low priced farmland for rental. In contrast, the minority farmer does not get the same “best source to purchase” advice. Another example is appropriate as is the “best source to purchase” example. Consider a lender loan requirement specific to the minority farmer where a refinance of personal residence using a USDA guaranteed loan is mandatory for the closing of a farm operating loan. Under the “effects test” a disparate impact problem arises where, in contrast, the non-minority, similarly situated farm borrower is not required to refinance his personal residence and or use the personal residence as collateral for a farm operating loan. It is easy to see that the minority farmer, in these examples are subjected to disparate treatment. Granted, some lender policies or practices will pass muster if it meets a legitimate business need of the lender that cannot reasonably be achieved as well by means that are less disparate in their impact. *See Regulation B, 12 CFR Section 1002.2(c), (m), (n), (t) and (z).*
- (b) **Deceptive and Abusive Lending.**—Although less frequently, a lender may subject a farm loan borrower to terms and conditions that are designed to put the farmer out of business. A farmer may be subjected to coercive tactics whereby a farmer can be lured into a farm loan that is not affordable or guaranteed to result in foreclosure. Lender decisions to such abusive or deceptive tactics in loan making or terms and conditions may violate the Dodd Frank

Unfair Deceptive and Abusive Practices Act (UDAP). In the farming area, like other consumer credit, a UDAP claim can be successful only when the lenders conduct shows the following: “(1) materially interferes with the ability of a consumer to understand a term or condition of a consumer financial product or service; or (2) takes unreasonable advantage of—(A) a lack of understanding on the part of the consumer of the material risks, costs, or conditions of the product or service; (B) the inability of the consumer to protect the interests of the consumer in selecting or using a consumer financial product or service; or (C) the reasonable reliance by the consumer on a covered person to act in the interest of the consumer.”^[7] ***Dodd-Frank Wall Street Reform and Consumer Protection Act, 12 U.S.C. Section 5531(d)***.

- (c) **Residential Real Estate.**—In order to obtain a farm operating loan, a farmer may be required to offer his personal residence as collateral for such loan. On its face the offering of a personal residence can be a lender requirement that is based on the credit risk of the particular loan. However, Civil Rights statutes and implementing regulations such as 24 CFR Section 100.130 (a) prohibit a lender from imposing different terms or conditions for the availability of loans or other financial assistance because of race where the transaction is secured by residential real estate. ***See 42 U.S.C. 3604(b); 24 CFR Section 100.130 (a); and 24 CFR Section 100.130(b)(1)(2)(3)***.
- (d) **Excessive Collateral Requirements.**—Whether minority farmers are required more frequently than non-minority farmers to tender excessive collateral in order to receive a farm loan or to acquire meaningful loan servicing through workout and loan modifications. ***See Regulation B, 12 CFR 1002.6(b)(4); Regulation B 12 CFR 1002.2(n)***.
- (e) **Discriminatory Loan Terms and Conditions.**—Whether minority farmers more frequently than non-minority farmers receive loan funds after April of any given crop year. Under the guidance of 12 [CFR] 1002.6(b)(4) a lender cannot provide two different systems of credit application, loan pricing or loan servicing. ***See Regulation B, 12 CFR 1002.6(b)(4)***.
- (f) **Third Party Influence.**—Whether minority farmer loan application packages and lending decisions are unduly influenced by third party entities such as equipment dealers, agricultural input suppliers and or processors and millers of raw agricultural products. ***See Regulation B, 12 CFR 1002.2(c); 12 CFR 1002.4(a)(b); and Unfair Deceptive Abusive Practices Act—12 U.S.C. Section 5531(d)***.
- (g) **Lender Control Over Farmer Operations.**—Whether farm lenders more frequently exert control over the daily management of minority farmer operations in terms of acreage planted and equipment purchased. ***Unfair Deceptive Abusive Practices Act—12 U.S.C. Section 5531(d)***.
- (h) **Intentional Lender Mistakes.**—Whether certain lender decisions are implemented with intent to cause irreparable damage to the economic viability of minority farm operations. ***Unfair Deceptive Abusive Practices Act—12 U.S.C. Section 5531(d) (UDAP)***. We do not infer that every farm loan, whether USDA Direct or USDA guaranteed, is made and designed with the intent to defraud or damage the farming operations of minority operators. But, history and experience, nevertheless, inform us that such problems like this do appear occasionally and have the intended effect of causing harm and failure to minority farmer operations. Again, we stress that these practices do not happen every day, but our farmers tell when they exist, and the farmers tell us when lenders make lending mistakes—intentionally or not. Having made a compelling argument to the U.S. Congress during the 2018 Farm Bill debate, the House and Senate Agriculture Conference Committee, responded proactively to provide a provision of “equitable relief” for farm loan borrowers in those circumstances where a FSA farm loan employee makes a mistake—knowingly or unknowingly—and that mistake causes a borrower to be in non-compliance on a USDA direct loan. Section 5304 of the 2018 Farm Bill conference report gives the Secretary of Agriculture the authority to offer a farm loan borrower a provision of “equitable relief” when a decision of a farm loan officer causes the borrower to be out of compliance with the loan program. Noncompliance with a loan term or provision can lead to default, acceleration, and foreclosure. The “equitable relief” provisions of Section 5304 are far afield from the fraud prevention provision of the UDAP. ***12 U.S.C. Section 5531(d)***. Lender mistakes whether intentional or not will cause economic damage to farm business operations. We mention the presence of “equitable relief” in Section 5304 to highlight the existence of a problem and the neces-

sity that the GAO study look into irregular lending practices having a flavor of mistake or fraud. **Sec. 5304 of Public Law 115-334.**

V. Industry Specific Credit Transactions: Sugar Cane and Contract Poultry

Although not often implemented by the U.S. Department of Agriculture, 7 U.S.C. 1983c permits the Secretary of Agriculture to conduct pilot loan programs in areas of lending irregularities, such as those endemic to industries such as contract poultry and sugar cane production. The existence of pilot loan programs under 7 U.S.C. 1983c provides additional credibility to the research questions and methodologies that we suggest be made a part of this study. Our suggested approach makes a valid attempt to explain farm lending irregularities whether they be historical and race based or neutral loan making business decisions that have a disparate impact on minority farm loan borrowers. Upon the general applicability of 7 U.S.C. 1983c, we urge a methodology that informs the Secretary of Agriculture of the benefits of frequent, effective utilization of 7 U.S.C. 1983c when presented with a petition by a farm group showing that an area, or group of farmers are defaulting on loans on a consistent and increasing rate with a similar pattern or practice of lending or loan servicing. Under 7 U.S.C. 1983c, a petition from a farm group requires the Secretary to create a farmer Loan Pilot Project designed to prevent and restructure loans in the area of concern. FSA direct and private guaranteed lending in the contract poultry industry presents a good example of consistent farm lending irregularities. For example, in the years 2004–2007, approximately, we worked with Hmong organizations and producers, holding focus groups and other reviews of the difficulties faced by Hmong farmers who had relocated to northwest Arkansas near Fayetteville, to purchase poultry operations. We reviewed practices and called these to the attention of the Secretary of Agriculture. Many of the families included parents who entered the U.S. as refugees, and children who had worked in fields such as engineering. A group primarily from Wisconsin began to move to northwest Arkansas at the recommendation of respected people, who had served in public positions within USDA and elsewhere. They had some resources, and it appears the local real estate industry worked in cooperation with the banks to secure guaranteed loans to buy out poultry operations that were not economically viable for their former owners. The producers showed us that in many cases identical or nearly identical farm and home plans were submitted to the banks for approval, and farmers were told they could secure certain conservation benefits used by previous owners. The prices of the farms rose as more producers moved in, and in most cases the families were not aware of the additional costs they must incur before the integrators would allow them to enter production. The loans provided were proving highly risky, and many of the new producers lost their operations. The “solution” recommended at the national level after Rural Coalition and many other groups called for action, was to pressure the Natural Resources and Conservation Service to engage trainers from groups who worked as farm advocates to teach producers how to better meet the requirements of the poultry integrators. The GAO should review the loan portfolios in that region over the past 15 years to examine lending practices. Producers told us that the bankers, the real estate agents, and many others benefited. The producers are left with debts most likely still held by the Farm Service Agency.

Minority and socially disadvantaged farmers and ranchers are often subjected to lending irregularities deemed “nonbusiness credit risk” loan terms and conditions. The following terms and conditions are deemed “non business credit risk” terms and conditions: (i) lender loan servicing mandate to sell borrowers existing income producing collateral and use the sales proceeds to buy new replacement collateral from a single tractor equipment source identified by the lender; (ii) farmer requirement to purchase a piece of farm harvesting equipment and immediately lease the equipment to a third party business; and (iii) consideration of the past bad debt of a parent or other family member. The outgrowth of these and related lending irregularities *fosters* barriers to meaningful access to farm credit for minority farmers.

VI. Effective Complaints Processing and Settlement

We further note that the Farm Credit System lacks a specific system or methodology to act on civil rights complaints consistent with ECOA and related requirements and that one needs to be developed and implemented in order to assure fair implementation of guaranteed programs.

We have attached correspondence* that we conducted with the Farm Credit Administration on behalf of a young African American producer in South Carolina, and

* **Editor’s note:** this attachment did not include any attached correspondence. It has been reproduced herein as submitted.

correspondence between he and FCA in 2014. We also have correspondence and many documents on the case of a Hmong woman who had an operation in Missouri with her husband, and how she lost her operation after he passed away. In these cases and many others, producers come to us at a point when it is very difficult to save their operations.

What is similar in all the cases we have mentioned is that there is substantial confusion not only for the guaranteed loan borrowers we have encountered, but also on the part of advocates, on how to secure the rights provided these borrowers under the Equal Credit Opportunity Act. The Farm Credit Administration has not included equal credit opportunity under the protected rights it lists on its website, and to file a discrimination complaint, producers are told to write to the FCA Office of Congressional Relations and Public Affairs. The questions asked and responses provided indicate there is no formal process to investigate claims under ECOA. There do not appear to be any statements or other information to tell farmers how to secure their rights. We urge you to review these attachments. The GAO study should examine what system FCA and the banks that make guaranteed farm loans should have and how producers should be informed of and assured their rights. Thus, producers who encounter unfair treatment lose valuable time trying to figure out the avenues of protection they do have. The GAO should consider what measures are necessary to correct these deficiencies and assure guaranteed lenders abide by ECOA in loan making and loan servicing.

The study methodology should also take a look at the specific minority farmer lending practices within certain crops or industries such as poultry in Arkansas, North Carolina and elsewhere, vegetable crops in South Carolina and sugar cane crops in Louisiana. The study will be much more valuable if it examines the lending practices in these industries as related to African American, Hispanic, Hmong and other Asian Pacific American, and Native Americans borrowers. A specific portion of the inquiry should address how the details of loan transactions may have caused or contributed to the exodus of minority and socially disadvantaged farmers from specific farm industries in specific areas, and who benefited and who lost in these areas.

VII. The Need for a System of Compliance Monitoring

Our Coalition has worked on the issue of compliance monitoring in direct lending and on the issue of equitable access to all Federal programs for farmers and ranchers for many years. In particular, we have worked to assure the data is available to understand patterns and barriers that interfere with the assurance of equitable access and opportunities. Since 1987, we have worked to secure authority for the collection and analysis of program participation data by race, gender and ethnicity at the national, state and county levels. The Agriculture Credit Act in 1987 required the calculation of target participation rates for lending to the county level for direct and guaranteed loans. Farm Service Agency and its predecessor, the Farmers Home Administration, has done so for years. These data are available to guaranteed lenders and the Farm Credit System. Over the years, in each farm bill we have added other authorities for data and documentation. Following the 2012 Census of Agriculture, we urged the National Agriculture Statistics Service to provide data to the county level on the demographics, economics and crop produced by race, gender and ethnicity. They complied, and this data is now available at https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/Race_Ethnicity_and_Gender_Profiles/index.php.

We have seen no evidence that the Farm Credit System and other guaranteed lenders have any system to evaluate their lending to minority producers as compared to other producers, or that they collect the data they would need to proactively monitor their compliance with ECOA.

In 2011, Farm Credit Administration released for public comment a *Proposed Operating and Strategic Planning Rule*, 76 FED. REG. 101 (May 25, 2011). Its recommendations were based on marketing practices related to addressing “diversity” in the marketing practices of the Farm Credit System Institutions, while avoiding the more central issue of compliance with ECOA. The following is an excerpt from our comments:

The Rural Coalition, and other undersigned partners and allies, submitted detailed recommendations with respect to the proposed rule, which we share with you now as they are pertinent to the current report and merit re-examination for the outcomes achieved following the issuance of this rule:

The Final Rule Should Require the Federal Credit System Institutions to Engage Historically Underserved Farmers and Community-Based Or-

ganizations that Serve Socially Disadvantaged and Limited Resource Farmers in the Development of Their Marketing Plans.

According to Section 618.8440(b)(8), the marketing plans of Farm Credit System institutions would have to include, at a minimum, a description of the institution's chartered territory by geographic region, types of agriculture practiced and market segment and the strategies and the actions to ensure the institution's products and services are equally accessible by all farmers, with an emphasis on outreach to historically underserved farming communities. Furthermore, the proposed rule advises institutions to use an array of demographic information, down to the county level, to identify the characteristics and market segmentation of its territory (i.e., Websites of the Census of Agriculture, the U.S. Census Bureau, and the United States Department of Agriculture's Economic Research Service).

In addition to these sources, the Farm Credit System institutions should also engage their state National Agricultural Statistics Service (NASS) Directors to generate data specific queries in order to obtain a deeper understanding of the farmers that the institutions are mandated to serve.

Additionally, institutions should also specifically work with the USDA to obtain the annual application and participation rate data mandated in Section 14006 of the 2008 Farm Bill, including numbers and percentages, for each county or parish and state in the United States, organized by race, gender and ethnicity, from USDA's Farm Service Agency and Rural Development programs. The Farm Credit should also look at this authority and other more recent authorities to generate their own data on participation in their programs.

Section 618.8440(b)(8), also advises that the "marketing plans of institutions include grassroots outreach activities and education efforts that market to underserved populations regarding business and financial planning and leadership and loan programs for persons who are creditworthy and eligible to borrow." Although outreach to underserved farming communities is an essential component of an institution's marketing plan, the unique perspective and reality of the underserved farmer should be incorporated in the developmental process of the institution's marketing plan. Accordingly, the final rule should require institutions to include historically underserved farmers and community-based farming organizations that serve socially disadvantaged and limited resource farmers in the developmental process of the institutions' marketing plans.

In preparing our Coalition's comments to this proposed rule, we spoke to several members about the Farm Credit System and there exists a universal perception that the Farm Credit System institutions are not accessible to the underserved farmer and have failed to conduct outreach to these communities to educate them regarding the institutions' programs and services. In the words of a long-time Latino farmer and advocate, "the Federal Credit System is further beyond the reach of the farmer than a commercial bank, we never felt this was a source of assistance."

Moreover, institutions should work to develop meaningful relationships with the USDA Minority Farms Advisory Committee authorized in the 2008 Farm Bill and now established, community-based organizations that serve socially disadvantaged and limited resource farmers, 1890 and 1994 Land-Grant Colleges and Universities, and grantees under the 2501 Outreach and Technical Assistance Program, as well as identify persons from these committees, institutions and organizations to assist in the development of marketing plans. Furthermore, the Farm Credit System Diversity Workgroup should also identify members from the aforementioned committees, institutions and organizations to assist in the development of its programmatic efforts to reach historically underserved farming communities. The development of such relationships is essential if progress is to be made in expanding credit to this growing market.

As required by Section 4.19 of the Farm Credit Act, Farm Credit System associations and institutions should continue to tailor credit programs and services to address the needs of Young, Beginning, and Small farmers and ranchers. Although these programs do not have the explicit objective of advancing customer diversity and inclusion, these programs should be used as essential outreach portals to socially disadvantaged farmers and ranchers. As mentioned in a previous section of these comments, the current participation rate data of the USDA Beginning Farmers and Ranchers Program serves as a cautionary illustration of how well-intentioned programs can neglect the needs of historically underserved farming communities, especially if these communities are not included throughout the program development process.

Moreover, the final rule should emphasize the importance of allowing institutions to use discretion in determining whether farmers are creditworthy and eli-

gible to borrow. If the Farm Credit System institutions want to make significant strides in serving historically underserved farming communities, these institutions must recognize that their credit requirements should not be rigidly enforced and should allow for case-by-case exceptions (i.e., waiver or lowering of collateral requirements). The language “creditworthy and eligible to borrow” should not be interpreted or implemented in such a manner to undermine the spirit of the proposed rule, which is to make the institutions more responsive to the needs to historically underserved farming communities.

The Final Rule Should Include Revisions to the Proposed Rule’s Working Definition of Diversity

Throughout the proposed rule, diversity is purported to be achieved through the inclusion of all individuals of varying race, ethnicity, sexual orientation, age, disability, social class, religious and ideological beliefs and not through a list of demographic criteria.

This working definition of diversity is problematic and provides a loophole for institutions to avoid implementing a marketing plan that actually promotes diversity and inclusiveness within the institutions’ borrower base. Demographic criteria should be given equal weight in determining whether institutions are in fact providing equal access to credit to all farmers.

Consequently, an institution’s commitment to diversity and inclusion cannot be ascertained by an institution’s lofty mission statement (as suggested by the Farm Credit Administration’s Request for Comments) **rather by the institution’s actions and achievement of assessment benchmarks.** The final rule should include a revised definition of diversity to address these concerns and should also assure that the diversity includes actual borrowers or potential borrowers from the socially disadvantaged community who actually understand the issues, the history and the complexity of small rural communities and their racial, ethnic and gender dynamics and history.

The Final Rule Should Require the Farm Credit System Institutions and Diversity Workgroup to Make Their Final Marketing Plans and Participation Rate Data Public

The Farm Credit System Diversity Workgroup was established in 2006 to increase diversity awareness, promote understanding of inclusiveness, and serve as a diversity resource within the Farm Credit System. Since its inception, the Diversity Workgroup is purported to have sponsored a diversity conference, several trainings workshops, speakers, outreach and communications. Despite the laudable efforts of the Diversity Workgroup, the effectiveness of the Workgroup’s efforts to achieve a more inclusive workforce and borrower base must be evaluated through various assessment and accountability benchmarks. For example, some pertinent questions that must be addressed by the Diversity Workgroup [and at the current time by the Farm Credit System and lenders in General]:

- (1) How many farmers from historically underserved farming communities have applied for and received loans from Farm Credit System institutions;
- (2) Are the institutions’ borrower base reflective of the market segmentation of their chartered territories? If not, what specific steps has the Workgroup recommended to the institutions to ensure they adhere to their mandate of providing equal access to credit to all farmers.

The final rule should require the Farm Credit System institutions and Diversity Workgroup to make their marketing plans as well as their assessment and accountability findings public. Moreover, if there are egregious shortcomings in the marketing plans efforts to respond effectively to the needs of historically underserved farming communities, these plans must be revised to address these gaps in services. In essence, the institutions should view their marketing plans as fluid plans that can be amended as necessary to be more responsive to the institutions’ diverse borrower base.

... Farm Credit System institutions should take affirmative steps to ensure that data systems are in place to record the important demographic and participation rate data of all borrowers to allow comparisons and track progress.

The Final Rule Should Require Farm Credit System Banks and Associations Board of Directors to Appoint Directors From Historically Underserved Farming Communities or Community Based Organizations that Serve Socially Disadvantaged and Limited Resource Farmers

Reiterating Farm Credit Administration Bookletter BL-009, the proposed rule encourages all Farm Credit System Institutions’ Board of Directors to appoint directors to serve on the Board that would further the aim of facilitating diver-

sity, when feasible. Again, the discretionary language of the proposed rule (i.e., “encourages”) will not bring about transformative change in the corporate culture of the Farm Credit System institutions. In order to bring about substantive change in the corporate culture of these institutions, the final rule should mandate that at least one appointment to the institution’s Board of Directors be a member from a historically underserved farming community or a community-based organization that serves socially disadvantaged or limited resource farmers.

Now in 2019, we further recommend a review of racial, ethnic and gender diversity among the directors and staff of the lending institutions of the Farm Credit System.

While some statutes have been updated since our recommendations in 2011, we see no evidence FCA has changed their systems to comply with ECOA and to assure fair service to all borrowers and potential borrowers. The GAO report should address these fundamental issues of the ability of the Farm Credit System and guaranteed lenders to assure fair service to all producers, as ECOA requires them to do.

VIII. Conclusion

The results and findings of a comprehensive study could assist lender and government agencies with the legal mandate to offer the same loan products and loan servicing options offered to each and every farmer regardless of social status. The success of highlighting irregular farm lending patterns, and lack of systems to address these patterns, will be instructive to all farmers, lenders and reduce the overall costs of farm lending transactions while preventing questionable or unlawful family farm foreclosures.

SUBMITTED QUESTIONS

Response from Nathan S. Kauffman, Ph.D., Assistant Vice President, Economist, and Omaha Branch Executive, Federal Reserve Bank of Kansas City, Omaha Branch

Questions Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question 1. How can Congress reduce barriers for underrepresented farmers—for young, BIPOC, minorities farmers. I’m from the state of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, and some really creative things going on in the state that have not been accounted for in this industry. How can Congress help these unique, nontraditional operations?

Answer. Agricultural production in the United States includes a diverse representation of industries and farmers, many of which have differing goals, needs, and business models. The structure of large operations specializing in the production of standardized commodities, for example, may differ from the structure of smaller or non-commoditized operations. Likewise, the needs of producers with varying backgrounds and experiences, including underrepresented farmers, may be unique relative to others in the industry. These differing structures and backgrounds can give rise to alternative perceptions of risk and, accordingly, the availability of credit. Understanding the differences across producers and operations, and how these differences may affect the availability and terms of credit support, may be a useful consideration for future policy.

Question 2. Your testimony pointed out that land prices are rising in the Kansas City Fed Region. Would increasing the cap on FSA loans adequately address rising land costs? Should Congress look at adjusting regional equity in the upcoming farm bill to address the uneven cost of land in the United States?

Answer. In recent years, farmland valuations in the Kansas City Fed region, and throughout the country, have increased significantly. In general, these increases have occurred alongside a sharp rise in agricultural commodity prices and gains in farm income. Regionally, farmland valuations also differ dramatically based on the returns generated by the land. The increases in incomes and wealth in recent years have placed borrowers in a strong financial position to make further investments in their operations, including the acquisition of land. Some borrowers, however, including young and beginning farmers, may not have sufficient resources to acquire farmland through traditional financing mechanisms, particularly in regions with highly productive farmland. Should Congress seek to address potential barriers to farmland ownership, particularly for segments of agricultural producers who may have fewer resources to acquire farmland, considering the limits on FSA loans may

be a potential option. However, it may be important to consider other options that also facilitate entry into farming that do not require the purchase of farmland.

Response from Dãnia C. Davy, J.D., Board Representative, Socially Disadvantaged Farmers and Ranchers Policy Research Center, Alcorn State University; Director of Land Retention and Advocacy, Federation of Southern Cooperatives/Land Assistance Fund

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question. How can Congress reduce barriers for underrepresented farmers—for young, BIPOC, minorities farmers. I'm from the state of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, and some really creative things going on in the state that have not been accounted for in this industry. How can Congress help these unique, nontraditional operations?

Answer. Black and other historically discriminated against and institutionally underrepresented producers (“HDAIU”), young producers, and diversified production operations have been consistently excluded from Federal farm policies which only further perpetuate the barriers these producers encounter in securing access to credit and markets and achieving competitive scale. To create policies that more adequately meet the needs of Black and HDAIU producers, Congress must continuously seek to better understand the challenges they face while simultaneously employing methods that improve the viability of their operations. With the increasing average age of producers, growing concerns about the climate, and increasing costs of growing and buying food, Black and HDAIU producers will continue to be critical first responders to the demands of their communities and the environment.

To eliminate barriers experienced by Black and other HDAIU producers, Congress should improve the recognition of cooperatives in strengthening these operations’ competitive market access, support the development of financial institutions owned and controlled by these groups, invest in HDAIU producer-centered research, and support the training and employment of a new generation of HDAIU technical assistance providers.

Cooperative Recognition

Cooperatives continue to be a critical business model for Black and other HDAIU producers because they are uniquely designed to address numerous challenges these groups face in terms of size, infrastructure, and access to production resources. Unfortunately, many USDA agencies still do not fully appreciate the role of cooperatives in agribusiness success for Black and HDAIU producers. Congress should improve the recognition of cooperative farm, fish, and forest businesses in all government programs to help Black and other HDAIU producers democratically own and control infrastructure, secure inputs, and access markets necessary for competitiveness in their respective industries.

Similarly, institutionalizing and investing in Black and other HDAIU producers’ cooperatively owned financial institutions, comparable to the Farm Credit system, would dramatically increase credit access for these groups and drive competition in the agricultural lending industry which has historically proven ineffective at meeting the needs of Black and other HDAIU producers. Black and other HDAIU producers need control over the lending practices reflecting their unique histories, business needs, and diversified operations to increase the overall credit access and best lending practices to these groups.

HDAIU Producer-Centered Research

Black and other HDAIU producers have been the subjects of many research projects; however, these producers have not always been involved in the design of these research projects or the implementation of the recommendations emerging from this research. This is, in part, why the Socially Disadvantaged [Farmer] & Rancher Policy Center (“Policy Center”) was established at Alcorn State University. The Policy Center has prioritized critical research needed to support HDAIU groups’ access to credit—the bedrock of strong businesses. Congress should continue to support the Policy Center in these efforts by supporting funding for HDAIU producer-centered research. Further, Congress should strengthen its support for the implementation and institutionalization of the resulting research recommendations by supporting HBCUs, 1890 Land-Grant Universities and Community-Based Organizations with long-standing relationships with Black and other HDAIU producers to continuously improve outreach and education on best agricultural practices to help these producers make effective business decisions.

Increasing Black and HDAIU Technical Service Providers

A byproduct of investing in HBCUs, 1890 Land-Grant Universities and Community-Based Organizations to conduct research on the needs and successes of these Black and HDAIU producers will be the increase of well-trained, technical service providers that reflect the communities that are being researched and served by this research. Investments in the training of Black and HDAIU technical service providers will also help reverse the trend of out-migration from farming, fishing and forestry communities by creating additional professional pathways to support the overall economic stability and success of Black and HDAIU producers and their communities.

Question Submitted by Hon. Salud O. Carbajal, a Representative in Congress from California

Question 1. Ms. Davy, It sounds like there is a history of some local Farm Service Agency offices abusing their powers.

There is clearly reason for farmers and ranchers, particularly those who are of color, newcomers to the industry, or underserved to distrust these offices.

How can Congress help build credibility and trust in USDA programs designed to benefit Young, Beginning, and Underserved farmer and ranchers?

Answer. Congress can support the credibility and trust in USDA programs designed to benefit Young, Beginning, and Underserved Producers by ensuring adequate resources and requiring processes that highlight accountability, tracking critical data, and supporting partnerships with community-based organizations and HBCU institutions.

Accountability Breeds Trust

Without acknowledging or creating a robust accountability process, distrust towards the Agency will likely persist. Identifying shortcomings in the Agency's Civil Rights Administrative processes, creating meaningful accountability practices, and implementing these accountability mechanisms are a necessary step in restoring public trust in the Agency.

Accountability does not necessarily mean termination or loss of government employment benefits, although that should not be eliminated from available options for illegal behavior; instead, accountability might require institutional changes. For example, if numerous Civil Rights complaints are filed against a particular FSA office or agent, accountability could look like increased Civil Rights oversight from the Federal Agency for a period of 6 months to 1 year. This increased oversight could help the Federal Agency identify ongoing agent/leader development training needs and implementing a meaningful action plan for improving an office or agent's practices.

Comprehensive Data on Farm Service Agency Practices is Critical

Better tracking of local FSA agent practices is critical for improving the access Young, Beginning and Underserved Producers have to USDA programs and loans. While FSA offices are required to provide every producer a receipt for service for any encounter with the office, this system has not rooted out problematic behaviors that continue to be reported against local FSA offices and agents.

One solution is to develop "Customer Satisfaction Surveys" to accompany each encounter between a producer and their local FSA office. These Customer Satisfaction Surveys should capture, at minimum, the date, time, and location of the encounter; name, race, and gender identity of the FSA agent; name, race and gender identity of the prospective applicant; the loan/program the prospective applicant was seeking; the forms or documents they received; a rating the quality of assistance the prospective borrower received; any decision that was made by FSA on the application; if the producer withdrew their application, an explanation for their withdrawal; the length of time from initial encounter with FSA to receipt of loan/program approval/denial decision; and the length of time from loan/program approval to receipt of the funds/program benefits. These criteria would help identify the FSA Agents and offices that are employing the best practices in serving Black and other HDAIU producers and those that are not. This data will help identify trends in racial inequities and critical interventions at the local level that can improve services to Black and HDAIU producers and their communities.

CBO/HBCU Partnerships

USDA has announced several recent partnerships and cooperative agreements with community-based organizations, HBCUs and other institutions who have long-standing relationships with Black and HDAIU producers. Leveraging the existing relationships between community-based organizations and HBCUs can help the Agency identify best practices for fostering favorable relationships with Black and

HDAIU communities, identify shortcomings in Agency policies, and begin to support improved services being delivered to these groups.

Question 2. Would more educational opportunities and resources on applying for loans through the Farm Service Agency be welcome? If so, would this be better received by USDA or nonprofits who work on these issues?

Answer. Improved and Additional Educational Resources on Applying for Farm Service Agency Loans Appear Warranted

Additional and improved educational opportunities and resources on applying for Farm Service Agency loans will always be welcome especially to the new and beginning farmers, ranchers, forest, and heirs' property landowners may not have had any interactions with Farm Service Agency ("FSA"). However, it should be noted that many producers, Black and other historically discriminated against, institutionally underrepresented producers ("HDAIU") continue to report discrimination in the current FSA loan application processes. These reported experiences of discrimination persist despite the reporting Black and HDAIU producers participating in relevant workshops, trainings and technical assistance programs on FSA loan applications. Thus, despite increased education on the FSA loan application process, the reports of perceived and actual discrimination persistently plague the reputation of the FSA loan application and servicing that occurs at local offices.

Community-based Organizations, HBCUs and Cooperative Extension Programs Appear Best Positioned to Design and Deliver Educational Programs on Applying for Farm Service Agency Loans

The community-based organizations, HBCUs, and cooperative extension programs that have the longest standing relationships with Black and HDAIU communities have consistently shown an ability to overcome many of these concerns by providing Black and HDAIU farmers, ranchers, forest, and heirs property landowners the necessary technical assistance to submit successful farm loan applications. Partnerships and cooperative agreements between the Agency and these institutions can leverage the strong relationships these institutions have developed with these communities that may serve to overcome unpopular reputation the Agency has in many Black and HDAIU communities.

Response from Julia Asherman, Owner, Rag & Frass Farms, LLC; on behalf of National Young Farmers Coalition

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question. How can Congress reduce barriers for underrepresented farmers—for young, BIPOC, minorities farmers. I'm from the state of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, and some really creative things going on in the state that have not been accounted for in this industry. How can Congress help these unique, nontraditional operations?

Answer. Thank you for the question, Representative Hayes. As you point out, what a farm might look like can vary tremendously. Building and changing food systems that reflect the needs of young farmers is going to require many different policy changes as many different levels of government. The more policy can be written to be flexible and inclusive, and put itself in the shoes of farmers, the better.

Though the challenges facing young farmers are significant, many like me feel incredibly rewarded and fulfilled in growing food for our communities and stewarding natural resources. I'm a member of the National Young Farmers Coalition (Young Farmers). Through their latest National Young Farmer Survey report, *Building a Future with Farmers 2022*,^{1*} they found that by and far, the majority of young farmers named that one of their farm's primary purposes for existing is stewarding and regenerating natural resources. In the report, Young Farmers names many policy proposals that center BIPOC farmers and would help uplift the next generation of producers as a whole. These policies are where you should look to for guidance.

Reducing barriers for farmers like me could look like many things:

- Free farming education and more targeted and applicable technical support (including business, financial, and legal support for farmers).
- Investing in the tools and technology we will need in the future, including smaller and more sustainable mechanization (for example more sustainable tillage equipment found commonly in Europe and the amazing specialized tools found in Japan—nearly impossible to find in the USA).

¹<https://www.youngfarmers.org/22survey/>.

* **Editor's note:** the report is retained in Committee file.

- Safety net programs especially tailored for us, not excluding us.
- Helping our farms be more efficient.
- Helping us upgrade more food-safe infrastructure.
- Supporting markets of all sizes.
- Rewarding us for good stewardship of our land or combating climate change.
- Creating protections for farms when we can't find or afford the labor it takes to farm, similar to how there are crop subsidies to protect farms from failing when the price is low.
- Investing in research, farmer round tables and think-tanks specifically to assess what farmers that are left out need.
- Investing in programs that help make land affordable, and that incentivize keeping farmland for farming.

It is also worth considering what 'success' in farming might look like. More and more I see farmers (especially full-time farmers without off-farm income) define this in the most basic terms: a good life with basic needs met (education, healthcare, family time, mental well-being, ability to 'weather the storm', *etc.*). This tells me that farmers face much deeper needs than just growing and selling; it is a question of weighing the personal sacrifice. Since it takes decades to build a farm and nearly the same to learn the skills, it is a pretty huge commitment to even get decent at farming. Reducing barriers could simply mean using policy to create a culture where farmers are valued, celebrated, resourced, supported, and aren't being forced to choose between farming and our basic quality of life. It is very telling that a huge majority of American farmers rely on off-farm income or a spouse's health benefits to get by. What if policy helped create a safety net for *the farmers* themselves, not just for the crop or the price?

I am not a BIPOC farmer, so I don't speak as a person of color, but my personal belief is that institutional racism (specifically the history of slavery and colonialism) is so completely linked to land and agriculture in this country that I do not see that any single policy will fix such deep and longstanding institutional inequity. I fully support programs that aim to specifically support BIPOC farmers, and alongside these policies at some point there needs to be larger accountability for hundreds of years of oppression and disenfranchisement in pursuit of the nation we have today.

Wealth (especially land) is often inherited and passed generation to the next, and there has been an obvious ripple effect of inequity through the generations of black and indigenous people reaching back to before the founding of the country. To repair this legacy within agriculture, the policy must also reach deep into the nooks and crannies of all the issues that touch farming and land ownership: land access, property ownership, rural access, credit, food insecurity, health, education, wealth distribution, incarceration, and violence. Perhaps this is naive, but I would like to see reparations, or what I would consider basic 'Federal accountability,' as a bipartisan American concept.

There are two specific areas where I would like to provide more detail in my recommendations for how the government could help small-scale, diversified farmers like me—designing FSA programs with us in mind; and improving relationships between farmers and their FSA offices.

Design FSA programs with small, complex farms in mind

A 'small' farm may gross \$75,000+/acre on less than 10 acres and employ a bunch of local people, or a 'large' farm could gross <\$2,000/acre on 500 acres, and employ no one (other than the farmer). Both could be profitable, or neither could be. One may be 'small' and the other 'large' but they can both have a significant impact on the local economy or supply chain. They are both critical and deserving of support. Size alone does not describe what is at stake.

Often the smallest farms can be the most complex on paper, growing many different crops in a small area. Small can mean double and triple cropping systems, season extension, and complex rotations. This can make the farm plan especially tricky to translate to FSA program rules and software.

One way that the government could help smaller farmers access programs, and help loan officer's ability to assist and deliver in a timely way, is to **find a way to make the 'translation' into FSA application software more applicable for small scale farms** (by being able to group crops, adjust units from acres to row feet or square feet, *etc.*).

Improve relationships between farmers and their FSA offices

The relationship between a farmer and their local USDA office is extremely important to navigating programs, or even knowing about them. Yet, large-scale farm-

ers and farming models, primarily operated by white farmers, have been more heavily supported by USDA than others. This can help shed light on why young, BIPOC, and small-scale farmers are systematically left out, and more in need of support than ever.

Farmers who are relying on crop insurance and subsidies are navigating those processes through close contact and reporting to local branch officers. Most smaller and diversified farmers, however, have zero crop insurance and get no subsidies or ‘deficiency payments’ if the market fluctuates or yield is low (I am only this week learning I could be eligible for NAP insurance, and overall I consider myself fairly up to speed on USDA programs). These farmers who are outside the crop insurance/subsidy system are not reporting to FSA/USDA, and are not necessarily on the radar of a local USDA office, let alone forming a relationship with them. USDA, without having reason to interface, track, and understand these operations, can become very unaware of the extent to which these farms exist and have unmet needs.

This not only means those farmers are operating with unmitigated risk, but any current or future program in which eligibility relies on producing commodity crops or showing crop insurance damages (most natural disaster relief, first round of pandemic relief) often excludes smaller, diversified, niche, and direct market producers outright, even if we are suffering losses too.

Conclusion

To answer your question fundamentally, Representative Hayes, all farmers (but especially underrepresented farmers) need *you*, our government, to invest in us and our success. As you named, young farmers are out here innovating around, over, and under the challenges in front of them. It is critical that this next farm bill makes a historic investment in land access, market access, and access to credit. USDA recently announced \$300 million in funding, with a broad eligibility framework, to support projects that will improve access to land, credit, and markets. We need more of this type of creative and flexible investment, to resource the people on the ground doing the hard work of trying to solve these challenges with the limited resources we have at hand. We need a farm bill that clearly sees and addresses these issues—most importantly land access.

Question Submitted by Hon. Salud O. Carbajal, a Representative in Congress from California

Question. Ms. Asherman, It was great to hear your story. I admire your determination in continuing to work towards building up your own farm despite obstacles and setbacks.

What you said about student loans really stuck out to me. Beginning farmers are not alone in the burden of student debt but we should not allow this burden to restrict opportunities for farmers.

Would some sort of program similar to Public Service Loan Forgiveness that forgives the student debt of farmers be beneficial to attracting more young people to this profession?

Answer. Thank you for the question, Representative Carbajal, and for further consideration of this issue. I couldn’t agree more with you, with one exception—I believe we are very much contributing to the nation’s food supply. One of the effects of this pandemic is that the fragilities in our food and farming systems have been laid bare, exposing the critical need for more local and regional food sheds that are thriving and contributing to the health of served communities.

But yes, to your specific question, a program of Federal debt forgiveness for farmers would be extremely beneficial, both for existing farmers who are struggling with student debt, and for future farmers who would see student debt as a barrier and not pursue agriculture as a result. There is a powerful incentive in debt forgiveness, this could certainly help illuminate the path towards farming for some, while signaling an increasing acknowledgement of farmers that is powerful.

I believe that farming is a public service, as we are contributing to the public good by providing healthy, fresh, high-quality food and stewarding natural resources. I know that there are efforts to add farmers to PSLF, as well as to address the functional problems with this program. I support these legislative efforts. At the same time, I believe that we should do much more, and eliminate Federal and commercial student debt for all current borrowers.

We also need more ways for young farmers to develop their knowledge and skills. We need more creative agricultural workforce development support from USDA, DOL, and from the states. Above all, I would recommend that any such program for farmers be re-imagined to be more tailored to farmers’ needs and circumstances.

For example, farmers are generally not government workers or employees of a nonprofit. We are often self-employed or in partnerships, and are often working reg-

ular ‘for profit’ businesses. Some farmers work on ‘family farms’ but are not always W2 employees. Farmers are notoriously independent and will likely want to maintain this freedom to work for oneself, so a policy to include farmers in Federal student debt forgiveness will need to accommodate this to be successful.

In farming terms, 10 years to wait for debt forgiveness is an extremely long time. Many new farmers would have a difficult time starting farms let alone getting them to 10 years while making school debt payments. Those first few years of farming are when money is the tightest, capitalization is most intense, and the operation is extremely fragile. A 10 year waiting period would seem to defeat the purpose of supporting new and beginning farmers.

I have heard that there are programs to relieve rural veterinarians of school debt, to encourage more people in this industry to practice in rural communities. I imagine this same concept could be extended to doctors and farmers both to aid in rural development and quality of life, and to incentivize people to choose to work where work needs to be done. Debt forgiveness programs for farmers can have the double benefit of alleviating a common barrier to entry (and success) and encouraging people to consider the career path over others.

Response from Hon. Adam Brown, Owner, B&B Farms; on behalf of Illinois Farm Bureau

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question. How can Congress reduce barriers for underrepresented farmers—for young, BIPOC, minorities farmers. I’m from the state of Connecticut. Not all of our farms are on large land. We have fish farmers, we have small urban farmers, and some really creative things going on in the state that have not been accounted for in this industry. How can Congress help these unique, nontraditional operations?

Answer. August 31, 2022

Honorable Congresswoman Hayes,

I truly appreciate your interest pertaining to the barriers to entry for young, beginning, and small (YBS) farmers. Please find attached the complete set of recommendations from the USDA’s Advisory Committee on Beginning Farmers and Ranchers (ACBFR) to Secretary Vilsack. I’ve enjoyed the pleasure of serving on this committee over the past few years and had the privilege to chair the Transition Working Group in crafting these suggestions. Particularly applicable to your question may be the section addressing the definition of a YBS being revised (Page 1) and the designation of the State Beginning Farmer and Rancher Coordinator as a full-time employee (Page 2). After building out these two administrative foundations at USDA, the remainder of the ACBFR’s recommendations can be pursued. Some of these can be addressed administratively at the USDA, but others will entail Congressional action. Please know that I would be thrilled to continue to walk with you as we pave a more sustainable path for all YBS farmers. Feel free to contact me for any clarification or assistance. Thank you again for helping tomorrow’s ag producers.

All my best,

ADAM.

ATTACHMENT

Goal 1. Increase USDA’s Ability to Effectively Service and Support the Beginning Farmers and Ranchers.

1. Recommendations

Designate Beginning Farmers and Ranchers as a top USDA priority. As the critically important next generation of agriculture, Beginning Farmers and Ranchers (BFR) face unprecedented challenges and unparalleled opportunities. It is imperative that BFRs have a strong network of resources and support available to them to ensure their success. USDA should establish clear Department-wide priorities, divert resources, and establish specific initiatives to guarantee the success of the next generation of farmers. We urge the USDA to designate BFRs as a national priority across the Department and deliver a clear message not only to the next generation of farmers and ranchers, but also USDA staff, policymakers and stakeholders that supporting BFRs is a central part of their work. Identifying an action plan and establishing clear metrics for monitoring to ensure BFRs are fully accessing USDA programs is critical. It is also equally important to embed this work within the USDA’s priorities focusing on advancing racial equity and addressing climate

change, and we urge the Department to explicitly include BFRs in these other key priorities and corresponding initiatives.

Develop a standard definition for a beginning farmer and rancher (BFR) that can be applied consistently across USDA programs and agencies. As members of the Advisory Committee on Beginning Farmers and Ranchers (ACBFR), we come from a wide variety of background and experiences. We sincerely appreciate the Departments commitment to helping new and beginning farmers and ranchers.

We recognize and have heard testimony from the various USDA agencies regarding the many different programs and opportunities available to assist BFRs. However, one of the concerns that we have heard is that new and beginning farmers and ranchers are not aware of these programs and opportunities and that there are some inconsistencies from field office to field office, state to state, or agency to agency. It is partially because of these concerns that we are proposing the U.S. Department of Agriculture adopt a universal definition that can be applied unilaterally across agencies, states, and field offices. Ideally the definition is clear and concise enough to prevent varying interpretations and simple enough to allow an individual or entity to self-certify.

Our intent is not to eliminate individuals from qualifying for USDA programs, grants, or other opportunities, but rather to give them an equal benchmark for competition. With that in mind the ACBFR has proposed the following definition for a New and Beginning Farmer and Rancher.

Recommended Beginning Farmers and Ranchers definition: A beginning farmer or rancher is an individual who is actively engaged in management of a farm or ranch for not more than a cumulative of 10 years since their 18th birthday.

The term “actively engaged” was discussed at length in our committee due to its significant impact on limiting potential new and beginning farmers and ranchers from being eligible for USDA eligibility. For the purpose of this definition, we will defer to the current definition as defined by Congress in the 2014 Farm Bill (*Federal Register* 7 CFR Part 1400 RIN 0560–AI31, <https://www.federalregister.gov/documents/2015/12/16/2015-31532/payment-limitation-and-payment-eligibility-actively-engaged-in-farming>).

While our hope is that the above definition helps to clarify what a BFR is, we also acknowledge that a new era of agriculture is emerging in the United States and that a one size fits all option may not fit our beginning farmer and ranchers. The ACBFR has discussed a variety of subcategories and would encourage the Department to develop funding opportunities, programs, and grants to target the

Designate the State Beginning Farmer and Rancher Coordinators as full-time positions, provide additional resources to ensure success, and establish accountability mechanisms. Section 12304 of the 2018 Farm Bill establishes BFR Coordinators both at the national and state level to provide outreach and technical assistance to assist BFRs to participate in USDA programs. These positions carry a significant burden in helping USDA to improve outreach and targeted assistance to BFRs. Given the broad scope of these positions as directed in the farm bill: coordinating technical assistance; developing a State Plan to improve coordination, delivery, and efficacy of USDA programs; overseeing implementation of the State Plan; working with USDA outreach coordinators to coordinate outreach efforts to BFRs throughout the state; and coordinating partnerships and joint outreach efforts with other organizations serving BFRs; it would be difficult to effectively serve the needs of BFRs by staff designated as collateral duty.

Additionally, developing a directive on Beginning Farmers and Ranchers would guide agencies toward action. The directive should establish coordinated policy for BFR outreach initiatives. If applicable, require agencies to formalize a working group representative and through the working group each agency would identify key program performance indicators to be included in a USDA annual plan.

We also recommend that both the National and State Coordinators are provided sufficient resources to be successful and the full engagement of USDA Leadership to reinforce the importance of the work of these coordinators. Coordinators should establish and monitor performance metrics in their states, and clear action plans for improving BFR participation for under-performing states.

Continued education and mentoring for Beginning Farmers and Ranchers. Currently the Beginning Farmer and Rancher Development Program has provided grants to organizations for education and mentoring of BFR's. We recommend a look at the programs and how they are being utilized to see where continued improvements can be made. We recommend a renewed focus of education and mentoring for BFR's in their third plus year of farming or ranching. Once BFR's overcome the challenges of startup they face the next phase of business growth and sustainability. Continued business education, resources and mentorship is critical in

the development of building businesses that can be adaptable to withstand the volatility and unpredictability of agricultural markets.

Continue to Utilize Virtual Tools to Better Serve Beginning Farmers and Ranchers. Over the past year, our entire country has faced the challenges of doing business in the face of the ongoing COVID-19 pandemic. USDA has been successful in adapting technology to better serve farmers and ranchers in the era of social distancing by allowing employees to be available virtually, to offer document signing virtually and to communicate program availability across different platforms. Throughout the pandemic, USDA program sign ups were easily accessible and the use of virtual tools simplified the application process.

We recommend that USDA continue to utilize and further develop virtual tools to help BFRs access information and allow for a more streamlined, timely and flexible application processes. In the past, there has been a stigma that working with USDA is a complicated and lengthy process. By utilizing more virtual tools, beginning farmers and ranchers can have access to the necessary information at their convenience and in a simplified format.

Additionally, some farmers and ranchers continue to feel underserved and uncomfortable working with specific offices or specific USDA staff, usually after a negative interaction, or worse, explicit, or overt discriminatory treatment. By allowing virtual tools, including the ability of farmers to work with USDA staff beyond just their designated county office, farmers and ranchers would have access to necessary information and it may allow opportunity for a more comfortable working relationship. To increase the use of technology effectively and efficiently, we recommend continued investment for technology improvements on local levels to ensure employees have access to the needed technology in the field (laptops, cell-phones, secure broadband, *etc.*).

Continuous Stakeholder Input. We also recommend that USDA continue the use of virtual listening sessions to reach as many BFR as possible and to ensure a robust and regular opportunity for stakeholder input and feedback into USDA programs and policies. We recommend that each State Beginning Farmer Coordinator convene regular listening sessions with farmers in their states or regions and that each Coordinator establish a state Beginning Farmer Working Group or Advisory Committee, comprised of BFRs, to ensure BFR concerns are embedded into state plans and USDA activities at the local level.

Increase Data Collection and Performance Metrics to Monitor Beginning Farmer and Rancher Participation. We would like to recommend that there be a renewed focus on data analytics and metrics regarding the impact of BFRs on U.S. Agriculture and how to better serve BFRs. There is much diversity in scale of business, commodities, race and socioeconomic status of BFRs. We recommend a continued focus on collecting data to better analyze the effectiveness of programs, the implementation of new programs, how to better serve the underserved and how to improve program reach. We recommend more data reports focused on BFRs that can be shared with stakeholders.

Develop a Comprehensive Digital Strategy for Connecting with Beginning Farmers and Ranchers. Currently the website *www.farmers.gov* and *www.newfarmers.usda.gov* are being utilized with a focus being streamlined towards *www.farmers.gov*. We recommend a focus on website analytics and a long-term digital strategy that includes an action plan to collaborate with other organizations to link websites and social media to better reach BFRs on different platforms.

Goal 2. Reduce Beginning Farmer and Rancher Capital Related Obstacles

2. Recommendations

Improve the Beginning Farmer and Rancher customer experience as follows:

- Create or purchase both an app and online platform to provide the following to applicants and guaranteed lenders:
 - A full description of each program offered to BFRs inclusive of a detailed description of all items needed to constitute a complete application for each loan, grant, or cost-share type.
 - Allow applicants to submit all required data through the applicable app or platform while also showing any remaining items needed to allow the application to be complete. If there are timetables required for submission based upon the applicant type (direct borrower, standard eligible lender, preferred lender, *etc.*), please have those timetables displayed within the portal for the customer.

- Ensure the applicant (whether direct borrower or guaranteed lender) is contacted in no more than four (4) business days from the submission of the initial request to ensure all parties are aware of what is needed to satisfy all remaining needed items.
- Establish an estimated timeline to closing that could be communicated to the borrower or guaranteed lender once all required documents are provided. Going forward, monitor and periodically update these estimated timelines based upon all data obtained from actual loan closings.
- Allow all documents to be electronically signed via Docu-Sign or other similar software.
- Enable future required financial information to be entered into a portal in the Moody's system utilized by the Farm Service Agency (FSA) to then be uploaded by the applicable FSA employee.
- Enable tax returns and other similar documents to be scanned and uploaded to the FSA portal within the Moody's system.
- It is acknowledged the implementation of the above items would require dedicated funds. It is respectfully requested Congress be asked to allocate the needed monies to enable the improved BFR experience.
- Implement "Customer Experience Group" initiatives with farm loan employees nationwide to ensure equitable and quality service and product knowledge are provided to BFRs.

Encourage a cultural change to minimize the inconsistency of program understanding levels within the various FSA offices. Encourage the utilization of "expert" knowledge as a reference for specific crops to allow specialized FSA employees to cover larger areas in instances where the local knowledge may be limited for that commodity. Promoting collaboration with extension offices and similar local expertise can most effectively serve the customer. Additionally, timelines from loan application to closing should be used as a metric to determine where greater knowledge or efficiency may exist for the purpose of improving training.

Establish procedures to ensure all personnel are trained in both current and emerging agricultural loan programs, both direct and guaranteed, specifically designed to serve all potential BFR applicants. Capture and analyze demographic information from each applicant willing to provide information to better understand future training opportunities.

Utilize the implementation of Recommendation 1, Recommendation 2 and Recommendation 3 only for the Beginning Farmer and Rancher programs initially to learn where the strengths and weaknesses may lie. This should allow for a more structured future roll-out for all FSA loan programs. This could also then be utilized for any non-FSA related programs benefitting the BFR group.

Create a program whereby the student loan debt for farmers could be forgiven or restructured. Participants in the BFR program for a minimum of five (5) consecutive years could be forgiven or restructured at a 1% interest rate with any restructured debt having a 100% government guarantee.

Goal 3. Better Facilitate the Transfer of U.S. Ag Land and Operations to BFRs

3. Recommendations

Increase knowledge, capacity, and capability of FSA staff to administer all available programs consistently throughout the country. FSA provides a plethora of valuable program offerings and loan products to BFRs across the country. However, access to these programs is not always consistent between regional offices and states. For example, the Land Contract Guarantee Program is inaccessible in California and used in other states. USDA needs to ensure that field staff are aware of and trained in administration of programmatic offerings, including BFR loans which have been made accessible universally across all states and regions.

Allow USDA contract transferability to farms that are changing structure or ownership, in which a BFR is party. As NRCS and FSA provide valuable conservation programs through EQIP, CSP, and CRP, these environmental contracts should be allowed to roll into new BFR ownership when the entirety of the controlled land is transferred, for instance, when the ownership goes through a structural change (*i.e.*, Partnership of a father and son to Sole Proprietorship of the son) or the farm's ownership is bought (*i.e.*, a new FEIN number as a father's business is sold to his daughter). While the new BFR owner would have to opt-in to the contract, two major advantages are present: the land would remain enrolled in a USDA

conservation program that is benefitting the public good, and the new owner would not have to standby for the next application period.

Distribute grants to qualified nonprofits to be used for succession planning services and educational programs. As the average age of the American farmer/rancher steadily increases, we note the importance of assisting BFRs as they delve into production agriculture. We further acknowledge that capable, qualified entities exist and are ready to support BFRs. Therefore, we recommend that the USDA award succession planning grants to these third-party entities, which can consult on farmland and operation transfers.

Goal 4. Facilitate the Access of Land by Beginning Farmers and Ranchers

4. Recommendations

Retain stepped-up basis clause for intergenerational land transfers. Maintain the Federal capital gains tax rate at 20% or whatever level is broadly applicable across the country for a given intergenerational land transfer. Capital gains taxes are based on the change in the value of an asset, such as farmland, livestock, or timber, when that asset is sold compared to the value when the asset was acquired by the current owner. Retain the step-up in basis for capital gains tax at death and carryover of basis for intergenerational transfers of productive agricultural land. To reduce the capital gains tax expense, farmers and ranchers use stepped-up basis, which provides a reset for the basis during intergenerational transfers. In effect, upon the transfer of assets following a death, the basis is reset to the market value at the date of death. Following the adjustment, taxes can be levied only on gains realized by the individual during his or her ownership, not on gains realized prior to the step-up in basis. Given that the asset values in agriculture have appreciated significantly in recent years, when farmland is inherited, without a step-up in basis, BFRs would face significant capital gains taxes which could undermine the financial viability of the BFR inheriting the farmland.

Any change in capital gains tax policy that eliminates, or scales back stepped-up basis could result in a massive tax burden on the agricultural sector. Any such changes should be carefully evaluated in terms of its impact on BFRs and accommodations made to reduce the impact of such changes on BFRs.

Create a mechanism to help BFRs compete with reopened Conservation Reserve Program enrollment with higher rental payments. The recent reopened 2021 CRP enrollment with modified higher payments will make it difficult for BFR to compete with the government for land access. An alternative approach would be to use Working Lands Conservation Programs with BFR incentives for conservation practices to accomplish conservation goals on BFR ground. Another approach could be to provide reduced interest rates for loans under BFR loan program for implementing conservation practices.

Incentivize Land Access

- Forgive or drastically reduce the capital gains tax if an experienced farmer agrees to sell farmland to a BFR at a discounted market value that would be equal to the capital gains due.
 - The goal would be to lower the cost of land for the BFR by offering the experienced farmer seller a break on the capital gains he would normally be required to pay.
 - The incentive would be that an experienced farmer would not pay capital gains if they sold to a BFR. Typically, experienced farmers work for decades to get to the point where they can finally afford to sell or find it advantageous to sell, only to see the government take a portion of the land appreciation to a point it is not advantageous, ends up being too costly to sell, or is too costly for BFR to purchase.
 - Additional benefit via tax credit or other financial incentives to landowners who seek socially disadvantaged farmers and farmers who belong to communities of color, such as Black and African American, Hispanic and Latino, Native American, Alaska Native and Indigenous, Asian American, Native Hawaiian and Pacific Islander, Middle Eastern, and North African persons as a successor for purchasing the farm.*
- Incentive to landowner to lease to BFR with additional incentives to socially disadvantaged farmers and farmers who belong to communities of color.*
 - Lease terms would require a minimum 5 year commitment.*

*Note—Eligibility for these recommendations would require BFRs and landowners to be considered “actively engaged farmers” under the 2018 Farm Bill definition.

- Potential for subsidized lease executed via landowner who **would see** subsidy to minimize risk associated with leasing to BFR.*
- Create an incentive in the IRS Section 1031 Like-Kind Exchange code for an experienced farmer who sells a farm to a BFR then re-invests the proceeds of a sale into a similar-nature property to receive deferred capital gains tax.
 - The seller would be granted 2 years, as opposed to 180 days in regular sales, to find the next property for which the Like-Kind Exchange would be used.
 - This could potentially be budget neutral, depending on the increase in market prices and the loss of the use of the money during the 2 years, given the capital gains would be deferred into the second property but would eventually be paid upon the sale of the second property.
- Utilize and promote current incentives to broaden land access to BFRs from underrepresented communities to build greater diversity in the BFR population.
- Interest rate subsidy for seller financing who sell to BFR with additional incentives available to landowners who sell to a socially disadvantaged farmer or farmer who belongs to a community of color, as a buyer.*
- Land Contract Program is not administered in California.*
- More dedicated funding for nonprofit land-link/farm-link state organizations, similar to state block grant implementation, that are building these connections and incentivizing finance structures that enhance land access. Money dedicated to operation expenses and technical assistance providers.*
- Enhance the role of farmer cooperatives for incentive-based land access models, particularly when it comes to farmer cooperatives' ability to access land programs and eligibility for qualifying programs.*

A 2022 REVIEW OF THE FARM BILL
(STAKEHOLDER PERSPECTIVES ON TITLE XI CROP
INSURANCE)

WEDNESDAY, JULY 20, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON GENERAL FARM COMMODITIES AND RISK
MANAGEMENT,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 9:31 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Cheri Bustos [Chair of the Subcommittee] presiding.

Members present: Representatives Bustos, Craig, Carbajal, O'Halleran, Lawson, Austin Scott of Georgia, Allen, Rouzer, Mann, Miller, Thompson (*ex officio*), and Baird.

Staff present: Lyron Blum-Evitts, Carlton Bridgeforth, Kelcy Schanuman, Joshua Tonsager, Patricia Straughn, Trevor White, Erin Wilson, Samuel Rogers, and Dana Sandman.

**OPENING STATEMENT OF HON. CHERI BUSTOS, A
REPRESENTATIVE IN CONGRESS FROM ILLINOIS**

The CHAIR. This hearing of the Subcommittee on General Farm Commodities and Risk Management entitled, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on Title XI Crop Insurance*, will come to order.

Welcome, and thank you for joining today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today. We also will have a virtual component just so our witnesses know that.

I want to thank all of you for joining us this morning. As co-chair of the Congressional Crop Insurance Caucus, I am excited to hold this hearing, which continues the Committee's work to gather input on how programs in the 2018 Farm Bill have been functioning.

A month ago, we held a hearing with a panel of ag economists on farm programs and crop insurance. And at the time, many farmers in the Upper Great Plains were still trying to finish planting, given the extremely wet conditions. And farmers in the Southern Plains have mostly wrapped up winter wheat harvest, which is in full force in the Central and Upper Plains today. We continue to

hear from producers about the impacts of high input costs and commodity price volatility in recent weeks.

In addition to the hearings and meetings here in Washington, we have also been holding farm bill listening sessions out in the field, including ones hosted by Representative Tom O'Halleran in Arizona—Ranking Member Scott and I went out for that—and also by Congressman Jim Costa in California. And there are upcoming field listening sessions; one hosted by Congresswoman Kim Schrier in the State of Washington. She has one on Friday. And then we have one in Minnesota next Monday hosted by Congresswoman Angie Craig.

The economic and growing conditions that farmers are experiencing are ever-changing, and they vary across the country. And that is why these sorts of hearings and other meetings are important to the work we are doing to understand what is happening on the ground for producers. Our attention today is specifically on the Federal Crop Insurance Program. This hearing will gather input on how risk management provisions in the 2018 Farm Bill have been implemented and how crop insurance programs have functioned for producers.

Throughout the last two farm bill reauthorization processes, the message I heard loud and clear was, “Do no harm to crop insurance.” The program has been and continues to be central to risk management for producers across the country, and it has continued to grow and evolve to address the challenges and risks our producers are facing.

We have a well-rounded panel that will include testimony from an approved insurance provider, a crop insurance agent, a developer of new products, and two producers with experience with the program. I want to thank all of our witnesses here today, both in person and virtually, for the testimony you will be providing.

[The prepared statement of Mrs. Bustos follows:]

PREPARED STATEMENT OF HON. CHERI BUSTOS, A REPRESENTATIVE IN CONGRESS
FROM ILLINOIS

Thank you to our witnesses and my colleagues for joining us this morning.

As a co-chair of the Congressional Crop Insurance Caucus, I am excited to hold this hearing, which continues the Committee's work to gather input on how programs in the 2018 Farm Bill have been functioning.

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have been implemented and on how the crop insurance program has functioned for producers.

Throughout the last two farm bill reauthorization processes, the message I heard loud and clear was to do no harm to crop insurance. The program has been and continues to be a central risk management tool for producers across the country, and it has continued to grow and evolve to address the challenges and risks our producers are facing.

We have a well-rounded panel that will include testimony from an Approved Insurance Provider, a crop insurance agent, a developer of new products, and two farmers with experience with the program.

Thank you to each of our witnesses for the testimony you will be providing today.

The CHAIR. I would now like to welcome the distinguished Ranking Member, the gentleman from Georgia, Mr. Austin Scott, for any opening remarks he would like to give.

**OPENING STATEMENT OF HON. AUSTIN SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

Mr. AUSTIN SCOTT of Georgia. Thank you, Chair Bustos, for convening this important hearing to discuss the Federal Crop Insurance Program.

Today, crop insurance stands as the cornerstone of the safety net for many of our producers, but the program as we know it did not come about overnight. The various forms of Federal crop insurance date back to the 1930s. It wasn't until 1980 when critical reforms were made to create a public-private partnership that the foundation was laid for the program we have today. By leveraging the private-sector and incentivizing competition among companies, producers now have access to a dynamic system that provides our farmers with the highest level of service. Additional reforms in 1994 and 2000 further accelerated the growth of the program and collectively increased insurance acreage liability and coverage levels to where they are now.

While crop insurance has been remarkably successful, it is not perfect. I hear from producers in the Southeast that higher levels of coverage are often too expensive to justify the cost. And many fruit and vegetable farmers in my area do not have crop insurance policies available to them, leaving them Non-insured Crop Assistance Program, or NAP, as their only risk management option. I believe that in the next farm bill, one of the best investments this Committee can make is further enhancements to the crop insurance system that provide producers affordable options to increase coverage. Multiple policies such as Supplemental Coverage Option, Enhanced Coverage Option, Stacked Income Protection for upland cotton, Hurricane Wind Index, and margin protection are all geared toward helping farmers reduce the incredibly high deductible for insurance.

We need to thoroughly examine these policies and determine if they are doing an adequate job of filling this gap. If not, what tweaks might be needed to provide higher levels of affordable coverage? Since 2017, Congress has provided additional assistance to producers in the form of *ad hoc* disaster aid. This aid has been a critical lifeline for many farmers in my district, particularly after the devastation caused by Hurricane Michael in 2018. However, the inefficiencies in delivery, the delay in funding and payments, and the uncertainty of if or when Congress may act underscores the benefits of the importance of having well-functioning insurance

programs. Crop insurance delivers timely assistance in the wake of a disaster and provides a level of protection that farmers and their lenders can depend on.

It is important to note that approximately 90 percent of the country's food supply comes from 12 percent of our farmers. At a time of instability and economic turmoil throughout the world, it is crucial that this Committee does everything it can to assist farmers and ensure they are around to put food on our tables.

I am looking forward to hearing from our witnesses today. Their insights as part of the delivery system, product development, and use of the programs will provide valuable perspectives of the crop insurance industry. I want to say thank you to them for taking time out of their busy schedules to be with us here today.

And, Madam Chair, I yield back.

The CHAIR. Thank you, Mr. Scott.

The chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony and to ensure that there is ample time for questions.

We are pleased to welcome five witnesses today. Our first witness is Mr. Bob Haney, the Chief Executive of AgriSampo, based in West Des Moines, Iowa, and he is testifying on behalf of the Crop Insurance and Reinsurance Bureau and the American Association of Crop Insurers.

Our second witness today is Ms. Kathy Fowler, the owner of the Fowler Agency in Memphis, Texas, who is testifying on behalf of the Crop Insurers Professionals Association.

Our third witness joining us today is Mr. Alex Offerdahl, the Crop Insurance Division Head of Watts and Associates in Billings, Montana.

And our fourth witness is Mr. Tom Haag, the First Vice President of the National Corn Growers Association and a farmer from Eden Valley, Minnesota.

And to introduce our fifth and final witness, I would like to yield to the distinguished Member from Georgia, Mr. Allen.

Mr. ALLEN. Thank you, Madam Chair. And good morning, everyone. It is my pleasure to introduce my constituent and friend Lee Cromley. Lee is a sixth-generation farmer along with his brother Charlie in Brooklet, Georgia, right outside of Statesboro, Georgia—where they have farmed 2,500 acres of cotton and peanuts since 1983. He graduated from the University of Georgia, Go Dawgs, national champions, with a degree in agricultural and environmental sciences and has served on the Georgia Cotton Commission's Board since 2011. Along with Georgia Cotton Commission, he serves as a board member of Bulloch County Farm Service Agency and the Farmers and Merchants Bank of Statesboro, a committed community servant. Lee is also currently the Chairman of the Southern Cotton Growers and serves on the board of directors for the National Cotton Council of America. He and his wife Ann reside in Brooklet, and have three children. And, Lee, we look forward to your testimony here today. Thank you.

The CHAIR. Thank you, Mr. Allen.

Welcome again to all of our witnesses. We will now proceed with your testimony. You will each have 5 minutes. The timer should be visible to each of you, and it will count down to zero, at which point

your time has expired. If you can please honor that, that would be great.

Mr. Haney, we are going to start with you when you are ready.

STATEMENT OF ROBERT "BOB" HANEY, EXECUTIVE CHAIRMAN, AGRI SOMPO, CHIEF EXECUTIVE OFFICER, AGRI SOMPO NORTH AMERICA, SOMPO INTERNATIONAL HOLDINGS LTD.; MEMBER, BOARD OF DIRECTORS, AMERICAN ASSOCIATION OF CROP INSURERS, WEST DES MOINES, IA; ON BEHALF OF CROP INSURANCE AND REINSURANCE BUREAU, INC.

Mr. HANEY. Thank you, Chair Bustos, Ranking Member Scott, and Members of this Subcommittee. Thank you for allowing me the opportunity to testify today on the importance of crop insurance and the vital role it plays in providing risk management to farmers and ranchers across the country. My name is Bob Haney, and I am currently the Executive Chairman of AgriSompo, one of the 13 approved insurance providers that sells and services crop insurance to farmers and ranchers across the country.

I have been in the business since 1981, and our current company has a national footprint, serving the farmers in every state represented on this Subcommittee today. And we are committed to protecting the livelihood of the American farmers and ranchers so that they may help feed the world.

I believe that crop insurance is the best tool available to farmers to protect against the natural perils that our farmers face because crop insurance provides a rapid response to natural disasters. Private companies like ours typically are able to deliver indemnity payments to farmers in fewer than 30 days after a loss occurs. And the private-sector delivery of crop insurance also means that farmers get to choose the company and the local agent that can provide them and their family with the best service.

Now, crop insurance is also a very big tent. Our industry protects farmers of all types and sizes and covers over 130 different commodities, including the major row crops, specialty crops, organic crops, as well as dairy and livestock.

The cost-share component with the Federal Government helps to keep crop insurance affordable for most farmers, while also ensuring the program is fiscally responsible. Over 40 years ago, a commission of public- and private-sector visionaries conceived the concept of protecting the farmer, wherein the farmer had skin in the game via a deductible and a paid premium discounted by the taxpayer and deploying the private-sector to capitalize on its innovation and competitive nature, all in the name of a secure national food supply. This three-legged-stool concept is the key to the success of the crop insurance program.

Another key feature is that crop insurance is flexible. Farmers can tailor their coverage to fit the needs of their specific operations. And if a farmer or commodity organization doesn't believe there is an existing policy that works for their farm, those farmers can utilize what we call the 508(h) process to develop a product that does.

Now, today, I would like to address three topics as we look ahead to the 2023 Farm Bill. First, I would like to begin, as the Committee continues to evaluate the intersection between agriculture

and climate change, it is important to note that a farmer's first line of defense against climate change is crop insurance. There have been studies conducted that show that farmers who purchase crop insurance are more likely to undertake climate-smart agricultural practices than those who do not.

As this Committee looks ahead to the farm bill, I would like to share the criteria by which we evaluate proposals in this area. First, it is critical that any intersection between climate-smart ag and crop insurance, that it maintain the actuarial soundness of the program. This is the underlying tenet of the program that maintains its integrity. Second, intersections between climate and crop insurance should be incentive-based and not place additional mandates on our farmers and ranchers. And finally, new climate initiatives should be funded on their own terms and not take money away from the core of the crop insurance program.

In terms of meeting these criteria, we believe the 508(h) process is one tool that, when used responsibly, can enhance the intersection between climate and crop insurance. This process involves grower input, can lead to better coverages and possibly lower premiums, and is required to be, again, actuarially sound.

Now, shifting gears to crop insurance and disaster assistance, the last several years have seen an increase in *ad hoc* disaster payments as unprecedented crises have hit our rural America. It is only prudent for this body to be looking at the next farm bill for ways to plug these gaps in our safety net. Our ask of this Committee is that you consider crop insurance as the primary tool for helping to fill those gaps where appropriate.

Regarding disaster proposals, we would discourage the creation of any disaster program that would disincentivize farmers from purchasing crop insurance or that would directly compete with existing crop insurance products or products that are currently available in the private-sector. We actually don't want to see the creation of a program that would double pay farmers for the same loss. This would indirectly discourage the purchase of crop insurance and possibly lead to changes in farming practices that could lead to potential instances of fraud, waste, and abuse. And we would oppose the creation of a disaster package that is funded by cuts to the crop insurance program.

Finally, given the multiple mentions in the testimony relative to 508(h), I would be remiss not to mention that we are working actively with the Risk Management Agency to ensure transparency and timeliness in the rollout of future products submitted through the 508(h) process. Our goal is to have a functional process to bring innovation to crop insurance and for the process to be as consistent with sound business practices that ensure that we continue to be stewards of the taxpayer dollars and in the crop insurance program.

In conclusion, I would like to thank this Subcommittee for your support of crop insurance and for your willingness to learn more about the perspective of our industry. We stand ready to work with each of you as we head into the next farm bill.

[The prepared statement of Mr. Haney follows:]

PREPARED STATEMENT OF ROBERT “BOB” HANEY, EXECUTIVE CHAIRMAN, AGRISOMPO, CHIEF EXECUTIVE OFFICER, AGRISOMPO NORTH AMERICA, SOMPO INTERNATIONAL HOLDINGS LTD.; MEMBER, BOARD OF DIRECTORS, AMERICAN ASSOCIATION OF CROP INSURERS, WEST DES MOINES, IA; ON BEHALF OF CROP INSURANCE AND REINSURANCE BUREAU, INC.

[Chair] Bustos, Ranking Member Scott, and Members of the General Farm Commodities and Risk Management Subcommittee—thank you for allowing me the opportunity to testify today on the importance of crop insurance and the vital role it plays in providing risk management to farmers across the country.

My name is Bob Haney, and I am Executive Chairman of AgriSompo North America, one of the 13 Approved Insurance Providers that sell crop insurance policies to farmers and ranchers across the country. I’m also a farmer in Iowa. I’ve been in the crop insurance industry for more than 40 years and retired once, only to come back to lead AgriSompo and to continue work in an industry that I love and that I believe is of critical importance to American agriculture. Our company has a national footprint, so we serve farmers in every single state represented on this Subcommittee today. AgriSompo is also a member of the Crop Insurance and Reinsurance Bureau, the American Association of Crop Insurers, and National Crop Insurance Services.

The Federal Crop Insurance Program was initially created in the 1930’s, but it wasn’t until the development of the public-private partnership and the positive changes made by Congress in the 1990’s and 2000 that the program really became the cornerstone of risk management on the American farm. Farmers in 1980’s and 1990’s faced numerous challenges that were met by years of unreliable, untimely, and unbudgeted *ad hoc* disaster assistance. After spending billions in unbudgeted dollars, Congress decided that it was time to find a better way to help farmers across the country, so this body worked to make crop insurance more widely available and affordable to farmers and ranchers.

One of the things that is critical to the success of this program is its “three-legged stool” design. The risk of these policies is shared by crop insurance companies such as AgriSompo, the farmers who pay a premium for the policy, and the Federal Government that helps to reduce the premium paid by farmers and helps to underwrite part of the risk for the policies. Each player has skin in the game, which helps to ensure the success of the program over the long-term.

As an Approved Insurance Provider, we underwrite crop insurance policies—which means we share in bearing the risk of policies, so the taxpayer is not solely responsible for covering losses. We hire agents to sell policies and adjusters to assess and confirm losses. We invest in technology, training and services to ensure the highest integrity of the program. This investment helps to ensure one of the lowest improper payment rates amongst USDA programs.

Crop insurance is a big tent. Our industry protects farmers of all types and sizes and covers 130 different commodities, including a significant number of specialty and organic crops. For those crops without individual policy coverage, Whole Farm Revenue insurance is available. And more recently, the program has been expanded to include dairy farmers and a more robust option for livestock producers.

We believe that crop insurance is one of the best tools available to farmers to protect against Mother Nature because crop insurance is a rapid response solution to disasters and is a farmer’s first line of defense against climate change. Private companies like mine are typically able to deliver indemnity payments to farmers in fewer than thirty days after a loss occurs—not months or years later. The private-sector delivery of crop insurance also means that farmers have a choice in who they do business with, and this choice ensures that a farmer is able to find an agent and a company that can provide them with the best service for their operation.

The cost-share with the Federal Government helps to keep crop insurance affordable for most farmers, while also ensuring that the program is fiscally responsible. Although Federal crop insurance has been around since 1938, it wasn’t fully utilized until almost 60 years later. During this time, natural disaster management typically came solely in the form of *ad hoc* disaster bills, which were slow in delivering assistance, very costly, and relied completely on taxpayers to fund. It was the legislation created in 1994, 2000 and 2014 that helped kick start involvement from the private-sector, made the program more actuarially sound, encouraged participation, and improved availability of coverage. With the continued bipartisan support for the public-private partnership crop insurance provides, farmers are able to receive a reliable and cost-efficient safety net to protect both themselves and the future of farming.

Crop insurance is also flexible. Farmers can tailor their coverage to fit the needs of their specific operation. The program is continuously evolving and improving to meet the needs of America’s farmers and ranchers. Some recent advances have

included cost-conscious hurricane endorsement policy to assist farmers who have been impacted by increasingly severe storms as well as an endorsement for farmers who choose to split-apply nitrogen on their field.

If a farmer or commodity organization doesn't believe there is an existing policy that works on their farm, the Federal Government will actually provide significant reimbursement to them to develop a product that does through the 508(h) provisions in the Federal Crop Insurance Act. And most changes don't require a farm bill or any other legislation. It just requires an interested party to be willing to work with the Federal Crop Insurance Corporation Board to design a better product in an actuarially sound and marketable way.

We know that crop insurance has not solved every problem that America's farmers have faced in recent years. The program simply isn't designed to address every type or cause of extreme loss. The program is also, by statute, prevented from covering some losses—such as those that occur after the harvest of a crop. But for those losses that can be appropriately covered by crop insurance—such as in-season commodity price decreases, yield losses due to Mother Nature, and even squeezes in farmer margins—there is no better way to get assistance into the hands of farmers in a timely fashion than through crop insurance.

The bottom line is that the crop insurance program is successfully meeting the needs of thousands of farmers who can tailor their risk management needs to serve them best with the help of a local agent. This protection also represents a good value for America's taxpayers when compared to other alternatives for addressing losses incurred by American farmers.¹

Crop insurance complements climate-smart agriculture

As the Committee continues its work in evaluating the intersection between agriculture and climate change, it is important to note that a farmers' best tool in defense against climate change is crop insurance. Crop insurance and climate-smart agriculture intersect in positive ways. For example, in order to be eligible for crop insurance, farmers must follow Good Farming Practices, as defined by local agronomic experts. Farmers who follow those Good Farming Practices that help mitigate climate change—like no-till farming and planting cover crops, for example—can see lower production costs, better soil health and increased yields, all of which can lower their crop insurance premiums and increase their production guarantees in an actuarially sound way. By promoting Good Farming Practices that can help lead to lower premiums, crop insurance helps complement healthy soil and improve conservation efforts. The *Journal of Environmental Management* published a peer-reviewed study that credited crop insurance with encouraging the adoption of conservation practices. In fact, one key takeaway from that study is that farmers who purchase crop insurance are more likely to undertake climate-smart agricultural practices than those who do not.

The 508(h) process is another tool that can be used to enhance the intersection between climate and crop insurance. 508(h) allows for individuals or groups who would like to add additional insurance products into the marketplace a pathway for getting those products considered and approved by the Federal Crop Insurance Corporation Board of Directors. Products considered under this process are farmer-driven, actuarially sound, and follow sound insurance principles. Recent examples of products approved by the FCIC Board, which highlight the effectiveness of the 508(h) process in driving adoption of climate-smart agriculture practices, include a policy to support split-application of nitrogen and the Sprinkler Irrigated Rice Endorsement, with other climate-related policies currently under consideration.

When Congress considers legislative proposals addressing the intersection between climate and crop insurance, we would like to share the criteria by which we will evaluate such proposals.

- If additional intersections are going to be explored, these intersections should provide farmers with incentives, rather than mandates or regulation, to adopt climate-smart agriculture.
- Incentives must be designed so that insurance policy premiums continue to be set at appropriate rates for the integrity and success of the crop insurance program.

¹More on the structure and benefits of crop insurance can be found in the attached one-pagers that are utilized by the Crop Insurance Coalition. This Coalition consists of a variety of farm organizations, agricultural lenders, ag input organizations, the crop insurance industry and conservation groups that support protecting and preserving Federal crop insurance.

- By statute, crop insurance premiums must align with the risk associated with the policy, and because of the self-correcting nature of crop insurance, premiums adjust to reflect farmers' individual risk and production.
- The methodology for setting premium rates inherently takes climate into account. For example, premium rates are determined from more recent years of loss experience, thereby reflecting changes in weather and weather patterns. The program performs well, with premiums continuing to match indemnities paid to farmers, thereby ensuring the financial stability of the program for farmers, taxpayers, and the private-sector providers of policies.
- Agronomic data is critical to making changes to total crop insurance premiums, whether those premium changes are for climate-smart agriculture practices or other reasons.
- Lawmakers seeking to reward farmers for climate-smart practices should first look to the flexible 508(h) process that offers potential for new and creative solutions for addressing the intersection of climate change and risk management. It is important that farmers be incentivized in the adoption of Good Farming Practices that are climate-smart and that the crop insurance program not be turned into a policing mechanism for these practices. If incentives are created, they should be evaluated to ensure that they do not encourage practices that could harm yields and that there are appropriate incentives available for varying regions and crops.
- New climate initiatives should be funded on their own terms and not take money away from the crop insurance program.
 - Crop insurance is vital to America's farmers and has been working well for them for over 80 years. It is a critical tool for farmers as they adapt to the changing climate pressures. Weakening the program in any way will do more harm to farmers coping with climate change and will only increase the need for *ad hoc* disaster programs.
 - The program must be adequately funded in order to continue to provide this timely and effective risk management tool for farmers.

Crop insurance and disaster assistance

Crop insurance provides certainty to farmers and their lenders and it is targeted directly to actual losses incurred by a farmer. If a farmer has a loss, they will typically receive a crop insurance payment within 30 days of a claim being finalized through an efficient private-sector delivery system. By contrast, other types of assistance can often take a year, or oftentimes more than a year, after a disaster before a farmer receives a payment. Farmers get to choose their level and type of coverage, which provides a predictable financial backstop for lenders in times such as these where input costs are rising rapidly, and farmers are borrowing more to purchase these inputs.

The last several years have seen a drastic increase in *ad hoc* disaster payments as unprecedented crises have hit rural America. As an industry, we are continuously evaluating where the gaps in the program exist and what we can do to help more farmers better manage their risk through the Federal crop insurance program. This has been particularly true in the last few years of turbulence. For example, as *ad hoc* assistance was required to address increasingly intense hurricanes, the Risk Management Agency developed and the industry implemented a simple, inexpensive coverage for hurricanes that is based on wind speed and can help to address the concerns of many southern farmers who have often felt that more traditional coverage is too expensive for their needs.

Policies have also been developed to assist micro farms that are contributing to the diversification and strengthening of our supply chains and better options for our nation's livestock producers have been implemented. Existing margin insurance policies are also being evaluated to ensure the best coverage possible for farmers during these tumultuous times.

This is not to say that crop insurance can solve every problem. However, if this Committee considers a permanent disaster program, this legacy of improvement should lead the Committee to pose several questions during the development of the next farm bill. Where are there gaps in the safety net? Can and should these gaps be filled by crop insurance? What gaps would not be appropriate to cover through the crop insurance program? How do you prevent overlap in payments between crop insurance and other programs? How do you ensure that any new programs that are created do not compete with the efficient and already-successful program that is crop insurance?

Regarding any proposals considered by this Subcommittee and the full House Agriculture Committee, we:

- Discourage any disaster assistance program that would disincentivize farmers from purchasing crop insurance. Often crop insurance and disaster programs work together through purchase requirements to ensure that crop insurance participation is encouraged. However, even the existing *ad hoc* programs created by USDA and authorized by Congress, as they are designed today, discourage farmers from purchasing the highest levels of coverage available to them.
- Oppose double paying farmers for the same loss. In addition to indirectly discouraging crop insurance purchases, a duplicative policy design is not in the best interest of the taxpayer or the farmer over the long-term.
- Oppose any disaster package that is funded by cutting crop insurance.
- Encourage the use of the 508(h) process for the creation of additional policies that can better address existing gaps. The predecessors on this Committee understood the ever-changing agricultural landscape and designed mechanisms within the crop insurance program, including 508(h), that would help agriculture adjust to changing times. These processes should be protected and utilized moving forward.

Improvements to 508(h)

Given the multiple mentions in this testimony of 508(h), I would be remiss not to mention that we are working actively with the Risk Management Agency and look forward to working with this Subcommittee to ensure transparency and timeliness in the rollout of future products submitted through 508(h) process. In the past, companies have been faced with the implementation of new crop insurance products at such a late date and with so little information that it has been difficult to support a successful product launch for our farmer customers. When new products are rolled out, we want to see successful product launches, and the best way to ensure success is to have transparency with the companies that will be responsible for underwriting, selling and servicing the product.

For example, we recently implemented a 508(h) product that was released 2 months after our training programs were completed and just weeks before sales closing date. We spent hundreds of thousands of dollars to rework our IT systems and rushed to put out information on the product to our internal team, our agents, and our farmer customers. But because the product was rushed and companies, agents and our farmer customers were not comfortable with the product, we only sold 17 policies this year.

Ultimately, we want what is in the best interest of our farmer customers and the program, and we believe more transparency and timeliness in the 508(h) process is critical to those interests.

Concluding Remarks

Crop insurance is the premier risk management tool for the American farmer. A number of factors combine to make crop insurance the cornerstone of many farmers' financial and risk management plans: the ability to tailor coverage to their own operation at a meaningful level and affordable price, the comfort of working with a local and trusted insurance professional and the knowledge that losses will be covered in a timely manner and before the banker comes to collect. Throughout time, these crop insurance benefits have accounted for the success and acceptance of the program and will continue to do so well into the future.

Again, thank you for having me here today and for your continued support of the crop insurance program. I look forward to answering any questions you have, and I am happy to be a continuous resource for you during the upcoming farm bill discussions.

ATTACHMENT 1

[Crop Insurance 101]

Protect, Preserve & Improve Crop Insurance

In the coming year, we urge Congress to protect, preserve and improve the program:

- **Keeping crop insurance affordable to farmers.**
- **Maintain the size and diversity of the risk pool by keeping farmers of all sizes in the program.**
- **Maintain the efficient and effective private-sector delivery of crop insurance.**

- **Work with farmers, agents, AIPs and USDA to identify potential actuarially sound improvements to crop insurance.**
- **Crop insurance protects when disaster hits.**
 - In 2019, a record setting number of acres were not planted due to flooding and excess moisture. As the nation's premier risk management tool for farmers, crop insurance protected farmers from losses associated with not being able to plant their crop. Approved Insurance Providers (AIPs) have already paid out almost \$4.6 billion in indemnities, with more payments expected in the coming months.
 - In 2018, more than \$7.2 billion in indemnity payments were made for disasters including hurricanes and drought, all while some farmers are still waiting on their *ad hoc* assistance dollars to arrive.
- **Crop insurance is a successful public-private partnership, and unlike other farm programs or *ad hoc* disaster assistance that is 100% paid for by the taxpayer, crop insurance losses are shared by farmers, private-sector companies, and the government.**
 - Premium rates are set by the government and farmers cannot be refused a policy.
 - *Crop insurance is a rapid response solution to disasters.* Private-sector delivery typically allows farmers who have losses and have met their deductible to receive indemnity payments in less than thirty days. *Ad hoc disaster assistance cannot be relied upon by lenders and isn't delivered in a timely or precise manner.*
- **Crop insurance is purchased by farmers** to protect against yield and revenue losses due to natural disasters and single-year declines in prices. It is the only safety net available to all types and sizes of producers in all regions.
 - *Crop insurance is a cost-share* with farmers where farmers pay a discounted rate for their crop insurance premiums, which total \$3.5 to \$4 billion each year.
 - *On average, farmers meet a 27% deductible* before they receive a crop insurance indemnity payment.
 - *About 30% of crop insurance policies pay an indemnity in an average year.* It is not unusual for farmers to pay their crop insurance bill for years without receiving an indemnity payment.
- **Crop insurance is critical to the rural economy. Without crop insurance most producers simply cannot qualify for the operating loans needed to plant a crop.**
 - Due to the extremely tight margins and incredible risk in agriculture, regulators examining ag lending portfolios typically *insist borrowers have crop insurance to ensure repayment of loans.*
 - *Increasing the cost of farmer-paid premiums or disqualifying some farmers from participating in the crop insurance program will force farmers to decrease coverage,* making it more difficult to qualify for operating capital and loans in the current ag economy.
 - *Crop insurance protects jobs, both on and off the farm.* Crop insurance enables farmers to rebound quickly after disaster and allows producers to pay credit obligations and other input expenses, such as fertilizer or farm equipment.
- **By statute, crop insurance is actuarially sound. That means a large and diverse risk pool is needed to make premiums affordable. Removing some farmers from the crop insurance risk pool via means testing will impact the rates for every single farmer still participating in crop insurance.**
- **Crop insurance has environmental benefits.**
 - Conservation compliance measures, including wetlands protections and highly erodible lands protections, are a requirement for receiving a discount in the purchase of crop insurance.
 - The 2018 Farm Bill included language to clarify that planting soil-nurturing cover crops is allowed under crop insurance policies.
- **Crop insurance is nimble.**
 - Crop insurance improves each year to meet the needs of all types of farmers.

- Where there are gaps in the program, USDA, stakeholders and the private-sector have mechanisms available to fill these gaps with meaningful risk management tools.

ATTACHMENT 2

[Premium Discount Cuts to Crop Insurance]**Oppose Cuts to Farmer Discounts for Crop Insurance**

There have been various proposals to cut the discount farmers receive when purchasing crop insurance. These proposals vary in the details, but are fundamentally flawed, regardless of how the cuts are structured.

- **Any reduction in the discount for crop insurance will increase the cost of crop insurance to farmers.** Premium support does not go to crop insurance companies or agents—it simply keeps crop insurance affordable for farmers. According to a national public opinion poll released in May 2016, nearly 80 percent of Americans said they supported giving farmers discounts on insurance premiums and the vast majority agreed that the current premium and deductible amounts absorbed by farmers were appropriate.
- **The alternative to affordable and viable crop insurance for which farmers pay about \$3.5 to \$4 billion per year in premiums is ad hoc disaster assistance that is 100% paid for by the taxpayer and may not arrive until more than a year after the disaster.** Crop insurance is the only component of the farm safety net that farmers can literally take to their banker, thereby supporting the rural economy and protecting jobs on and off the farm.
- **Any increase in the cost of crop insurance will decrease demand for the product and increase the likelihood for calls for ad hoc disaster assistance.** Economists can debate how much of a decrease in demand will result from an increase in cost, but the fundamental fact remains: if you increase the cost of crop insurance for farmers, they will buy less crop insurance. This is particularly true in the current environment of historically low farm income and increased market volatilities.
- A recent study by Keith Coble and Brian Williams from Mississippi State found that farmers are willing to pay out-of-pocket no more than four percent of the expected value of their crop on crop insurance. So, as the cost of insurance increases, purchase levels will decrease.
- As commodity prices decline and farmers' budgets tighten, an increase in the cost of crop insurance is only more likely to result in a decrease in crop insurance purchases. Recent analysis found that reducing the aggregate subsidy rate by 14 percentage points could decrease the acres covered by crop insurance by 17%, potentially further increasing the pressure for *ad hoc* disaster assistance.
- As a reference point, recent analysis has shown that a ten percentage point decrease in premium assistance would increase the bill a typical Midwest grain farmer pays by 50% for a policy at the 70% coverage level. On a policy with an 80% coverage level, the farmer's bill would increase by over 30%.
- To gauge the impact of a reduction in the discount for crop insurance, we have history to guide us. Premium discounts were increased in 2000 with passage of the Ag Risk Protection Act (ARPA). Prior to ARPA, both premium discounts for farmers and crop insurance participation levels were much lower than they are today.

	1998 Crop Year	2018 Crop Year
Acreage	181 million	369.9 million
Total Premium	\$1.8 billion	\$10.0 billion
Farmer Paid Premium	\$929 million	\$3.8 billion
Premium Assistance	\$946 million	\$6.2 billion
Insured Liability	\$27.9 billion	\$104.1 billion

Source: USDA RMA, March 9, 2020.

ATTACHMENT 3

Means Testing and Crop Insurance

Federal crop insurance is, *by statute*, required to be actuarially sound. Over the long-term, every dollar of indemnities (payments to producers for losses) must be equal to the assigned premium. So when adjusted gross income (AGI) limits or pre-

mium support caps are proposed for farmers, what does that mean for farmers and crop insurance?

- ***Every single producer who purchases crop insurance will be impacted.*** It might only be a small number of farmers who are directly impacted by a premium subsidy cap or an AGI limit, but don't be fooled—every single producer in the program will be indirectly impacted. As limitations are placed on the discounts for crop insurance, farmers will buy less crop insurance or not buy it at all. The impact will be largest for lower risk farmers, crops and regions. That will change the “risk pool.” As the pool becomes more risky, the premiums for every farmer in that risk pool are likely to increase.
- ***GAO analysis shows that a \$40,000 premium support cap would have affected 26% of total insured liability in the crop insurance program in 2011.*** So while a premium subsidy cap might only impact a small number of producers, it would put a very large portion of crop production at risk.
- ***USDA has called a cap on premium support “ill advised,” noting regions with high-value crops, large-acreage farms, and/or a higher risk of crop loss would be especially hard hit.*** High-value crops would include such things as fruits and vegetables and organic crops. Arizona, California, Georgia, Hawaii, Louisiana, New Mexico, North Carolina, North Dakota, South Carolina, South Dakota and Utah have all been identified by USDA as shouldering disproportionate effects under a cap on premium support.
- ***Whole-Farm Revenue Protection will also be disproportionately affected.*** The average premium subsidy nationwide for 2017 was \$38,000, indicating that many policies would be above a \$40,000, or even \$50,000 cap. In nine states, the average premium subsidy is above \$50,000 (California, Delaware, Florida, Georgia, Louisiana, North Carolina, New Jersey, South Carolina, and Texas).
- Any means testing proposal, whether an AGI limit or a premium support cap, that has significant budget savings directly translates into an increase in cost to farmers. ***A dramatic increase in premium costs on a large percentage of acres would inevitably lead to decreased participation in crop insurance.***
 - To be clear, *reduced participation in crop insurance impacts every producer.* Because crop insurance is required by law to be actuarially sound, as the risk pool changes, premium rates must change to reflect the risk. Reduced coverage on a large number of acres will change the riskiness of the overall pool, thereby altering rates for everyone in the program. It's critical to remember that in looking at risk pools it is not the number of farmers impacted, but the number of acres impacted that will alter premiums.
 - *Reduced participation can only lead to an increase in calls for ad hoc disaster programs* as farmers no longer have the critical protection of crop insurance.

ATTACHMENT 4

Oppose Cuts to the Private-Sector Delivery System for Crop Insurance

- ***Crop insurance is a successful public-private partnership.*** The program is federally regulated and delivered by the private-sector.
 - Federal regulation ensures that farmers cannot be refused protection and that companies cannot raise premiums or impose special standards on any individual producer. Premium rates are set by the government and are based on actuarial soundness.
 - Losses are shared by farmers, private-sector companies and the government. The government, and therefore taxpayers, also share in any gains.
 - Private sector delivery allows farmers who have losses and have met their deductible to typically receive indemnity payments in less than thirty days, whereas *ad hoc* disaster assistance or other government safety net programs can take a year or more to provide assistance to farmers.
 - According to a national public opinion poll released in May 2016, voters agreed by a 20 point margin that farmers and taxpayers were better served by private companies delivering crop insurance instead of the government.
- ***The private-sector delivery system has already absorbed significant cuts through the 2008 Farm Bill and administrative actions taken in 2011.*** These cuts are estimated to be \$12 billion over a 10 year window.

- One such Administrative change already decreased the targeted rate of return for crop insurance companies to 14%.
- This target rate is *neither a guarantee nor a profit for crop insurers*. Profits are significantly lower than the target rate of return.
- As in farming, the crop insurance sector will have good years and bad years. The good years are particularly important to help sustain the sector during the bad years.
- ***Proposals to cut the private-sector delivery system would harm the rural economy and negatively impact service and timely delivery of payments when there is a disaster.***
 - In order to deliver timely service, the crop insurance industry employs thousands of professionals in rural America. More than 20,000 licensed agents, certified claims adjusters and company staff are committed to getting farmers who have sustained losses and met their deductible back on their feet quickly.
- ***Former USDA Farm and Foreign Agricultural Services Under Secretary Michael Scuse*** might have said it best during the devastating drought of 2012: “To this day, I have yet to have a single producer call me with a complaint about crop insurance. This is a testament to just how well your agents, your adjusters, the companies, and the Risk Management Agency worked together in one of the worst droughts in the history of this nation.”

ATTACHMENT 5

Crop Insurance Myth vs. Fact: Beginning Farmers and Ranchers

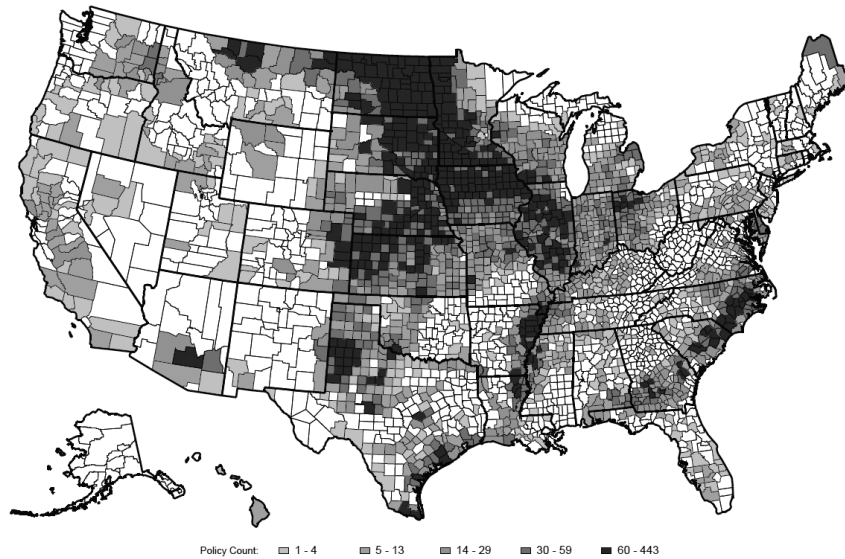
Myth: Crop insurance makes it more difficult for beginning farmers and ranchers to enter the farming business.

Fact: The 2018 Farm Bill maintained and expanded provisions to make crop insurance an even better risk management tool for beginning farmers and ranchers.

More than 17,000 farmers used the beginning farmer and rancher benefits in crop insurance in reinsurance year 2021

- These farmers insured more than 5.2 million acres of farmland.
- The beginning farmer and rancher benefits include a higher premium discount and assistance in building a yield history more quickly that is in line with what the land produced before being operated by a beginning farmer or rancher.
- Almost every state already has beginning farmers and ranchers utilizing these benefits.
- The ability of beginning farmers and ranchers to purchase crop insurance can be linked to their ability to obtain credit as well.

Beginning Farmer and Rancher Policies by County Reinsurance Year 2021



Source: Risk Management Agency, USDA.

ATTACHMENT 6

Crop Insurance Myth vs. Fact: Conservation

Myth: Crop insurance encourages farmers to tear up ground.

Fact: Overall, acres in production and erosion have decreased. Additionally, the 2014 Farm Bill expanded the conservation compliance provisions and Sodsaver provisions to apply to crop insurance.

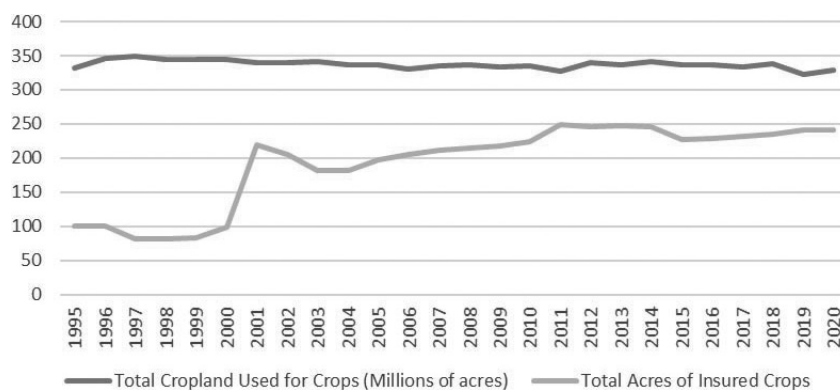
Farmers must comply with highly erodible land conservation and wetland conservation provisions. They must certify that they will not:

- Produce an agricultural commodity on highly erodible land without a conservation system;
- Plant an agricultural commodity on a converted wetland; or
- Convert a wetland to make possible the production of an agricultural commodity.
- These compliance provisions have been linked to the ability to receive commodity programs since 1985, but the 2014 Farm Bill relinked those provisions with eligibility for premium support paid under the Federal Crop Insurance Program.
- In addition, the 2014 Farm Bill expanded a Sodsaver provision which reduces the Federal crop insurance premium discount available to landowners by 50 percent for 4 years on any lands they convert from native prairie to cropland.
- The 2018 Farm Bill explicitly deemed cover cropping a “good farming practice” when paired with an approved termination date for the cover crop. The purpose of the provision was to ensure that crop insurance would not discourage farmers from adopting cover crop practices.
- A peer-reviewed study in the *Journal of Environmental Management* found that crop insurance can actually be complementary to the adoption of conservation practices. Adoption rates of conservation practices like cover crops and no-till are higher amongst growers who utilize crop insurance *versus* those who don’t.*
- The charts below tell an entirely different story than the myth suggests. The number of acres covered by crop insurance has almost tripled since the 1990s—

*Crop insurance: A barrier to conservation adoption?—ScienceDirect (<https://www.sciencedirect.com/science/article/pii/S0301479720311488?via%3Dihub>).

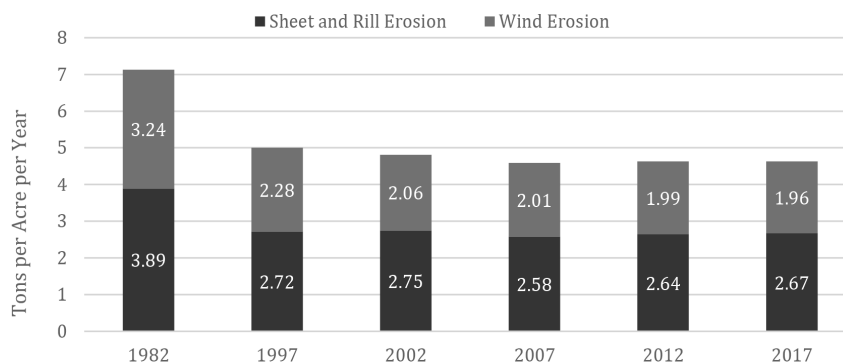
from fewer than 85 million acres to more than 240 million acres today, while overall crop acreage has decreased. Over the same period, USDA's Natural Resources Inventory shows cultivated cropland has dropped from 349 to 329 million acres. In addition, erosion has decreased significantly over that period.

Total U.S. Cropland Compared to Cropland with Buy-Up Crop Insurance



Source: Risk Management Agency, USDA.

Erosion Rate on Cropland, by Year



Source: Economic Research Service, USDA.

Source: Natural Resources Conservation Service, National Resources Inventory.

ATTACHMENT 7

Crop Insurance Myth vs. Fact: Crop Insurance and the Budget

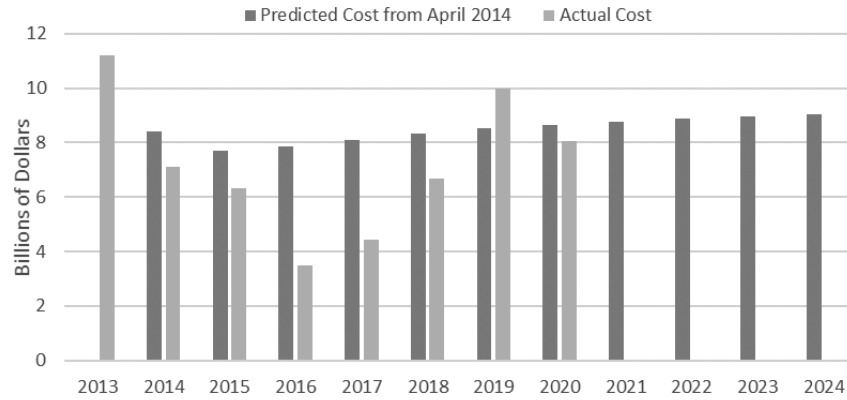
Myth: Crop insurance is over budget.

Fact: Crop insurance costs are currently well below budget.

Annual crop insurance costs peaked in 2013 at \$11 billion, mainly due to the devastating 2012 drought combined with the high value of crops at the time.

- According to the first CBO estimates provided after the passage of the 2014 Farm Bill, the actual cost of crop insurance has been around \$11 billion *under* budget between 2014 and 2020.

Cost of Federal Crop Insurance



Source: Congressional Budget Office.

- Crop insurance has consistently been under budget, but a couple of clarifying points on the budget:
 - First, there are several farm programs that are not crop insurance. Crop insurance is, by statute, an actuarially sound program that farmers pay for out of their own pockets and is delivered efficiently and effectively by the private-sector.
 - The cost of crop insurance is driven not only by disasters but by the cost of commodities. Like with any insurance, the more valuable the item is, the more expensive the insurance will be. As the value of commodities rise and fall, so too will the cost to insure them.
 - The overall cost of crop insurance can also be reduced by underwriting gains achieved by the government in years of good performance with lower losses.
 - The forward-looking budget estimates for the cost of crop insurance, by and large, remain consistent from year to year, as the Congressional Budget Office does not attempt to make predictions about what Mother Nature will do in any given year.

ATTACHMENT 8

Crop Insurance Myth vs. Fact: Crop Types

Myth: Crop insurance is only for big corn, soybean, wheat and cotton farmers.

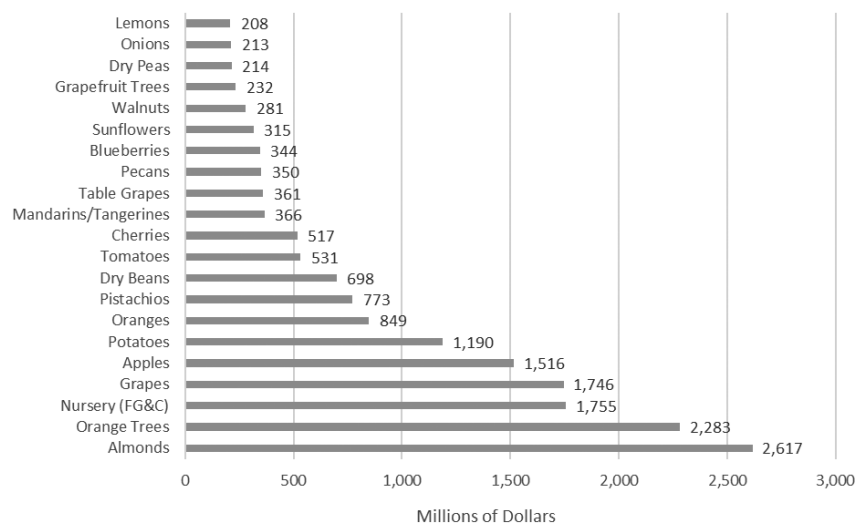
Fact: Crop insurance is available for more than 125 crops and to farmers of all sizes and in all 50 states.

The number of acres of fruit, vegetables, and other specialty crops covered by crop insurance increased from 7.7 million acres in 2009 to about 10 million acres in 2020. That's an increase of 30% in just eleven years.

- Many specialty crops are insured at rates similar to row crops such as corn, soybeans, wheat, and cotton. For example, 70% of apple and 71% of almond acres are insured, as well as 77% of cranberries.*

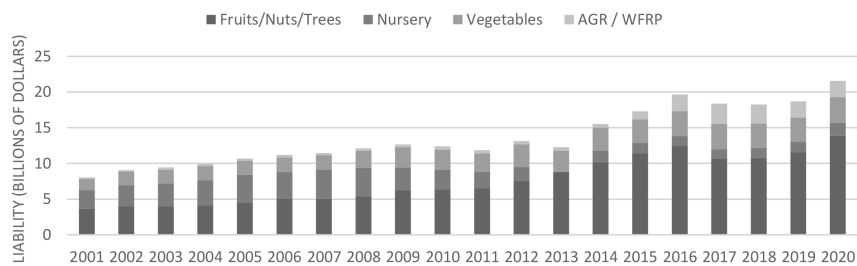
* **Editor's note:** there is a discrepancy in the submitted one-pagers by Mr. Haney and the corresponding one-pagers on the Crop Insurance and Reinsurance Bureau, Inc. advocacy website *Crop Types* (<https://cropinsurance.org/wp-content/uploads/2022/05/2022-Crop-Insurance-Myths-v.-Facts-Crop-Types.pdf>) and *Disaster Assistance* (<https://cropinsurance.org/wp-content/uploads/2022/05/2022-Crop-Insurance-Myths-v.-Facts-Disaster-Assistance.pdf>). The chart entitled, *Federal Crop Insurance Program Growth for Specialty Crops* follows the chart entitled, *Specialty Crops with the Highest Total Liabilities, 2020*. In Mr. Haney's consolidated submission this chart is embedded in the *Disaster Assistance* one-pager's second bullet.

Specialty Crops with the Highest Total Liabilities, 2020



Source: Risk Management Agency, USDA.

Federal Crop Insurance Program Growth for Specialty Crops



Source: Risk Management Agency, USDA.

ATTACHMENT 9

Crop Insurance Myth vs. Fact: Disaster Assistance

Myth: Farmers don't need crop insurance, because when disaster strikes, they can simply turn to *ad hoc* disaster assistance.

Fact: Crop insurance provides certainty to farmers and their lenders that *ad hoc* disaster assistance cannot provide because, by definition, *ad hoc* assistance is never a certainty and can change from year to year. Crop insurance is the timeliest component of the farm safety net, with payments made immediately after a loss is incurred.

- If a farmer has a loss, they will typically receive a crop insurance payment within 30 days of a finalized claim through an efficient private-sector delivery system. Other types of assistance can often take a year or more after a disaster before a farmer receives a payment.
- Crop insurance payments are tied directly to the loss incurred by a farmer and the coverage level purchased by the farmer. The deeper the loss, the higher the indemnity payment a farmer will receive.
- Crop insurance can provide coverage to more than 125 commodities every year and covers various types of losses. Whole farm revenue protection is also available for those crops that do not have an individual policy available. This gives crop insurance more breadth and depth than any other component of the farm safety net.

- Crop insurance is created to be flexible to meet the changing needs of America's farmers and ranchers. Crop insurance has the regulatory flexibility to make certain adjustments mid-season to address extreme weather events. New policies can be continuously developed to fill gaps identified in the program's protection.
- Often, crop insurance and *ad hoc* disaster assistance work together for farmers who purchase insurance to be eligible for higher *ad hoc* assistance payments. Crop insurance purchase requirements are also typically included in Congress's *ad hoc* disaster assistance bills.

ATTACHMENT 10

Crop Insurance Myth vs. Fact: Farm Income

Myth: Most agricultural production comes from large farms that can manage their own risk.

Fact: Farmers of all sizes use crop insurance, and crop insurance provides meaningful collateral to lenders when farmers seek operating capital.

- Crop insurance enables farmers, both big and small, to manage their risk in a way that helps them invest in and improve their operations. Many farmers would not be able to afford to do this if they were forced to self-insure and could not qualify for loans.
- Including farms of all sizes in the crop insurance program diversifies the risk of the program across a greater number and variety of farms, which improves the actuarial soundness of the overall program. This soundness is a benefit to all, including taxpayers.
- During these uncertain times, crop insurance is even more important to farmers looking to lenders for the operating capital required to continue to farm. Lenders look at crop insurance as a form of collateral for an operating loan, and it can enhance a prospective borrower's capacity to qualify for a loan.
- Although crop insurance payments are a small percentage of some farmers' overall household income, in times of crop loss and economic downturn, receiving a crop insurance indemnity payment can make the difference between being able to continue farming for another year or not.

"We utilize crop insurance when incidents happen that are completely beyond our control. And we are thankful we have it because it's saved our lives. Crop insurance has helped my dad sleep better at night."

ALICIA ABENDROTH (New York Apple Farmer).

ATTACHMENT 11

Crop Insurance Myth vs. Fact: Harvest Price

Myth: Harvest price coverage eliminates all risk from farming and is unnecessary.

Fact: Even with the harvest price coverage, farmers must meet a deductible for loss and pay a premium for harvest price coverage. Risk still exists for these farmers. The harvest price coverage simply provides these farmers with the replacement value for their lost crop.

The harvest price coverage in crop insurance policies provides protection on lost production at the higher of the price projected just before planting time or the price at harvest.

- There are two very practical and common scenarios in agriculture that make harvest price coverage a critical risk management tool.
 - *Harvest price coverage is critical to farmers who use forward contracting as another means of mitigating their risk.* If there is a natural disaster that results in a large drop in the production of a commodity, the price of that commodity is likely to increase sharply. Many farmers enter forward contracts before harvest to sell a portion of their production at a set price. Usually, these contracts pay the farmer for the production they deliver after harvest based on harvest prices. If the farmer loses the crop, they are still obligated to deliver under the forward contract. But since the crop is lost, the farmer would have to buy the commodity on the open market at the harvest price or financially settle at the harvest price to meet their contractual obligations. The purpose of harvest price coverage is to provide the farmer with sufficient funds to settle the forward contract. Without the harvest price coverage, the

farmer’s loss would be indemnified at the lower price projected at the start of the season.

- *Harvest price coverage is critical to livestock producers who grow their feed.* Harvest price coverage ensures these farmers will have the funds to afford the higher feed costs when they need to purchase feed.
- Caleb Ragland, a farmer from KY, said, “Harvest price coverage in crop insurance proved its importance during the 2012 drought on my farm. Having forward contracted much of my expected corn production, I was forced to buy back all my contracts, so I had enough corn to feed my hogs. Without the harvest price option, I would have faced a devastating choice between selling my hogs or paying the \$2 a bushel difference in my contracts and the current market price from my operation budget.”
- Think of harvest price coverage like the replacement value for car insurance, as explained in a popular insurance commercial: *
 - “You totaled your brand-new car. Nobody’s hurt, but there will still be pain. It comes when your insurance company says they will only pay ¾ of what it takes to replace it. What are you supposed to do? Drive ¾ of a car? Now, if you had . . . new car replacement, you’d get your whole car back. I guess they don’t want you driving around on three wheels. Smart.”

ATTACHMENT 12

Crop Insurance Myth vs. Fact: Improper Payment Rate

Myth: Waste, fraud and abuse are rampant in crop insurance.

Fact: According to the Risk Management Agency (RMA) at USDA, the improper payment rate for crop insurance for fiscal year 2021 was 1.41percent, which is less than the average rate for all government programs (4.67 percent). Actual fraud is only a small fraction of improper payments in the program.

All participants in crop insurance—farmers, agents, crop insurance companies, re-insurers, and taxpayers—are dedicated to detecting and eliminating fraud, waste, and abuse in the program.

- Crop insurance uses data mining to identify potential improper payments and also uses spot-checking of the work of insurance agents and adjusters.
- Because private crop insurance companies have money at stake with every policy written, these companies also spend money on training and monitoring.
- Actual fraud rates in the program are even lower than the improper payment rate reported by RMA. Improper payments are defined as over-payments, under-payments, and simple errors such as inadequate documentation. The improper payment designation does not necessarily include the existence of any intent to defraud the government.

Classification of Improper Payments Fiscal Year 2020

Types of Errors	% of Improper Dollars	Reason for Improper Payments
Production Reports—Support Units	26%	Production evidence did not support unit structure certification.
Production Records—Acceptability	20%	Unacceptable, unverifiable, and/or missing Production records.
Audit of Actual Production History	18%	Production evidence did not match the actual yields certified.
Were Insurability Conditions Met	16%	Insurability criteria was not met, did not meet the definition for insurability.
Share	8%	Incorrect share reported, records do not support reported share.
Production/Revenue to Count	4%	Transcription errors, production to count not determined correctly, allocation errors.
Uninsured Causes	2%	Adjuster did not follow correct procedures for assessing uninsured causes of loss.
Certification Form	2%	Incomplete certification form, certification form not completed.

* Liberty Mutual, 2016 <https://www.youtube.com/watch?v=5twuX-zoOv4>.

Classification of Improper Payments Fiscal Year 2020—Continued

Types of Errors	% of Improper Dollars	Reason for Improper Payments
Application Signature	2%	Application not signed timely, not signed by someone with proper authority.
Additional Error types	2%	All other errors.

ATTACHMENT 13

Crop Insurance Myth vs. Fact: Indemnity Payments

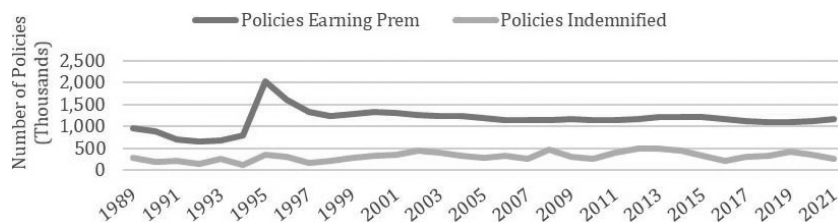
Myth: Farmers get crop insurance indemnity payments every year, and the program is so rich that farmers farm the program instead of the ground.

Fact: Farmers can pay crop insurance premiums year in and year out without receiving a single indemnity payment. In fact, on average, only about 30 percent of policies pay an indemnity in any given year. Any farmer who tries to make a living “farming” crop insurance isn’t going to be in business very long.

Since 1989, crop insurance policies have covered nearly \$2.1 trillion in liabilities to guard against losses. During that same time, total premiums* for crop insurance were \$189 billion, and farmers were paid \$157 billion in indemnities. By statute, the loss ratio must be equal to or less than 1.0.

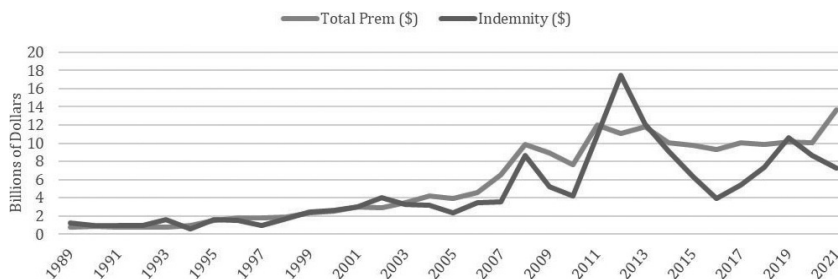
- Indemnity payments are made to farmers only when production or price disruptions result in crop yields or revenues below those guaranteed by the insurance contract. When production or revenues are above those guaranteed by a crop insurance policy purchased by a producer, an indemnity payment is not made, but the farmer must still pay the premium due to the insurance provider.
- Similar to weather risks, the cost of indemnities paid vary from year to year. In 16 of the last 20 years, total crop insurance premiums have exceeded indemnities paid to farmers.

Policies Earning Premium Compared to Policies Receiving Indemnity



Source: Risk Management Agency, USDA.

Total Premium Compared to Total Indemnity



Source: Risk Management Agency, USDA.

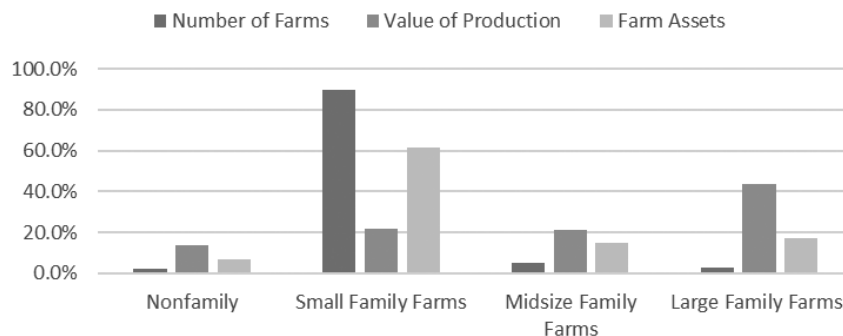
*This includes farmer paid premium as well as the premium discount.

Crop Insurance Myth vs. Fact: Means Testing

Myth: Means testing, such as adjusted gross income (AGI) limits and premium assistance caps, will keep large, wealthy farmers from receiving assistance they do not need.

Fact: Reducing participation from any group of farmers will change the premiums for *all* farmers because it will change the risk pool. Crop insurance is, by statute, an actuarially sound program, which means more participants and more acres in the program, the more the risk will be spread—keeping premiums and costs down for all participants.

- USDA has called a cap on premium support “ill-advised,” noting regions with high-value crops (such as fruit, vegetable, and organic crops), large-acreage farms, and areas with a higher risk of crop loss would be hit especially hard. USDA has noted that North Dakota, South Dakota, Texas, Minnesota, California, Arizona, Mississippi, Utah, and Hawaii would all bear a disproportionate share of the effects of a cap on premium support.
- Keith Coble and Brian Williams, economists with Mississippi State University, found that “large farms are a less risky sub-population in the insurance pool. Average per acre indemnities decline rapidly for both corn and soybean acres as the size of the insurance policy increases.” Removing the less risky farmers from the risk pool would drive up the costs for everyone who remains in the program.
- Even though crop insurance opponents note that only a small number of farmers would be affected by an AGI limit, it’s important to keep in mind that these farmers often farm a large number of acres. *It is the acres impacted by an AGI limit, not the number of producers, that will drive changes to premiums for all farmers.*

Distribution of Farms, Value of Production, and Farm Assets 2018

Source: Economic Research Service, USDA.*

* **Editor’s note:** there is a discrepancy in the submitted one-pagers by Mr. Haney and the corresponding one-pagers on the Crop Insurance and Reinsurance Bureau, Inc. advocacy website *Means Testing* (<https://cropinsurance.org/wp-content/uploads/2022/05/2022-Crop-Insurance-Myths-v.-Facts-Means-Testing.pdf>) and *Multiple Risk Management Strategies* (<https://cropinsurance.org/wp-content/uploads/2022/05/2022-Crop-Insurance-Myths-v.-Facts-Multiple-Risk-Management-Strategies.pdf>). The chart entitled, *How Risk Pools Work* follows the chart entitled, *Distribution of Farms, Value of Production, and Farm Assets 2018*. In Mr. Haney’s consolidated submission this chart is embedded above the *Multiple Risk Management Strategies* one-pager’s first paragraph.

How Risk Pools Work



Means Testing works against the law of large numbers, not just harming those excluded but all American farmers.

Reducing the risk pool would raise premiums for all farmers, potentially reducing coverage further as farmers opt out to avoid higher costs. In turn, taxpayer liability would increase with the return of the specter of ad hoc disaster assistance, the very problem our modern crop insurance system was designed to solve.

ATTACHMENT 15

Crop Insurance Myth vs. Fact: Multiple Risk Management Strategies

Myth: Crop insurance discourages farmers from using other risk management tools such as market hedging, cover crops and off-farm income. The use of these other risk management tools without crop insurance would be enough risk management for farmers.

Fact: Farming is risky, so farmers use a multitude of risk management strategies to manage the enormous hazards they face every year when they plant a crop. However, crop insurance is the only risk management tool that farmers can literally take to the bank to prove their ability to pay back annual operating loans required to keep the farm going.

Because each farm is unique, each farm's types of risk management strategies can vary, but crop insurance is a critical tool in a farmer's toolbox. Here are a few examples of the other risk management tools utilized by farmers:

- The use of **market hedging** has increased significantly since 2000, and approximately $\frac{1}{4}$ of all corn, soybeans, and wheat are hedged.* Additionally, farmers of other commodities often utilize **production or marketing contracts** to lock in prices for their goods. USDA estimates that more than $\frac{1}{3}$ of the value of all agricultural production is grown under contract, with this risk management tool being most utilized in livestock, dairy, sugar beets, fruit, and processing tomatoes.
- Most farms in the United States already rely heavily on **off-farm income** to maintain their operations and carry the enormous risk that comes with farming. According to USDA, recent increases in total farm income "largely reflect greater income from off-farm sources, where the majority of farm households earn most, if not all, of their income."
- **Cover crops** were planted on more than 20 million acres of U.S. farmland in 2020,† a nearly 33 percent increase from 2017. The 2018 Farm Bill also clarified the ability to plant cover crops on acres that are insured through the Federal crop insurance program. Planting cover crops can help manage risk in a variety of ways, including the improvement of soil health and an increased ability of soil to hold moisture in dry regions. Cover crops are gaining popularity among producers as information on benefits spread and carbon sequestration contracts become more prevalent.
- **Conservation tillage** practices are utilized on approximately 70 percent of soybean, 65 percent of corn, 67 percent of wheat, and 40 percent of cotton acres in the United States. These practices help manage risk by reducing topsoil erosion and improving soil health.‡
- *Clearly, the existence of crop insurance is not keeping farmers from utilizing other risk management strategies. However, cover crops and conservation tillage are not going to be enough for lenders who are looking to pencil out operating loans.*

* Economic Research Service, USDA.

† 2019–2020 National Cover Crop Survey, SARE, USDA.

‡ Economic Research Service, USDA.

Crop Insurance Myth vs. Fact: Market Distortions

Myth: Crop insurance is market distorting and discourages farmers from following market signals.

Fact: **Markets do not respond to crop insurance; crop insurance responds to markets. Crop insurance uses current-season market prices to determine coverage, losses, indemnities and premiums.**

- Crop insurance policies do not use an artificial price to determine coverage, losses, indemnities, or premiums. As designed today, crop insurance uses real-time tools such as various commodity exchange prices to determine coverage, losses, indemnities, and premiums. In other words, *markets do not respond to crop insurance; crop insurance responds to markets.*
 - For example, if corn prices are comparatively higher than soybean prices, crop insurance will reflect that market dynamic. Crop insurance is a reflection of the market and is available for all crops.
- *Crop insurance is available to all types of farms in all parts of the country, so the availability of crop insurance for one commodity and not another is also not a determining factor when farmers make planting decisions.*
 - More than 125 commodities are covered with individual crop policies, from corn to cantaloupe to cotton. There are more than 127,000 crop and county combinations for policies across the United States, providing multiple options to farmers.
 - For commodities that do not have a commodity-specific policy available in a given county, the 2014 Farm Bill created a Whole Farm Revenue Policy that allows all farmers of all commodities to have a crop insurance option.
- All crops get the same premium discounts for policies, so crop insurance does not artificially incentivize the production of one commodity over another commodity.
- Per the 2014 Farm Bill, new crop insurance products proposed for sale *must go through a consultation process specifically to assess if there would be a detrimental impact on the marketing and production of a commodity if a new policy is approved.*
 - The process for approving new crop insurance policies requires approval by the Federal Crop Insurance Corporation Board, which includes the Chief Economist at the USDA, whose mission is to advise on the economic implication of agricultural policies and programs.
- New technologies, data mining algorithms, and extensive training and education programs for agents and adjusters are all used to ensure crop insurance is being used properly as a risk management tool and to identify fraudulent claims. *These rigorous checks on the program also help to ensure that farmers are not farming for the program itself but for the market.*

The CHAIR. Thank you very much, Mr. Haney.
Ms. Fowler, please begin when you are ready.

STATEMENT OF KATHY FOWLER, OWNER, FOWLER AGENCY, LLC, MEMPHIS, TX; ON BEHALF OF CROP INSURANCE PROFESSIONALS ASSOCIATION

Ms. FOWLER. Good morning, Chair Bustos, Ranking Member Scott, and Members of the Subcommittee. My name is Kathy Fowler. I am a crop insurance agent from Memphis, Texas. I grew up on a farm and have been actively engaged in agriculture all my life. I am passionate about what I do, and I believe in the products that I sell to farmers and ranchers.

I am grateful and honored to be in this room today testifying and proud to talk about the amazing success that crop insurance has had. I am testifying today on behalf of CIPA, an organization of crop insurance agents with a presence in each of the 50 states. CIPA's mission is to continue to improve crop insurance because we

know the vital importance of U.S. agriculture. Agents talk to producers every day and they see firsthand the challenges that confront our farm and ranch families that we serve.

Agriculture has always been a tough business, whether it is adverse weather conditions, volatile markets, or bad actors on the broad scene that plague our farmers. It is even tougher today. Actually, the stakes have never been higher, and the margins are tighter and tighter. I talk about trade wars, the pandemic, inflation, and other very real challenges. But what is far more real to me is when I sit down across from my desk and talk to a young farmer, who is distraught about the drought situation that we are enduring today and how do I figure out how to make a crop.

Farmers and ranchers all across the regions consistently say we couldn't do without crop insurance. Crop insurance does more than just cover losses. It enables the producer to secure credit, to better market their crops, and to make the needed investments to improve their farm and ranch and build their soils. This is especially true for young and limited-resource farmers.

So let's just take a look at some of the stats with the crop insurance. Since 2000, the farmer-paid premium has increased six-fold. We now insure 130 crops. The acres insured have risen from 200 million to 450 million acres, and the total protection has shot up from \$35 billion to \$200 billion. With this growth, our performance has remained consistent. The average loss ratio is well into the statutory requirement of 1.0, actually meaning that this process and program is actuarially sound. A&O monies that are allocated for delivery have sharply declined as a percent of the total premium written.

So what does this all really tell us in what we are doing? I think it proves two things. Number one is we have a really good product, and kudos to RMA and this Committee who have worked on this program, and also our delivery system through AIPs and crop insurance agents for taking care of business. These are great stats, and we are proud of our efficiency.

But also we want to be clear where some problems exist. CIPA noted flawed design on the A&O cap and the disproportionate impact that it had on the specialty crop area. Thankfully, the issue has been addressed in the House ag approps bill, and I want to thank Chairman Bishop and Ranking Member Harris and many of you for working to patch these holes.

With that, I want to respectfully present some dos and don'ts that might serve as a guide as you prepare for the 2023 Farm Bill debate. Don't be tricked into pay limits and AGI means-testing on crop insurance under the idea that this will help small farmers because it won't. It will hurt them by raising their premiums and removing the good risk from the risk pool. Don't cut premium cost-share. Increasing premiums would move the crop insurance program backwards. Don't permit *ad hoc* disasters or permanent disasters to undermine crop insurance. You don't want to discourage producers from using their own risk tools. Don't try to mix policy objectives like climate into crop insurance. Crop insurance is meant to protect the farmer's profitability. When profitable, good conservation will follow.

Let's talk about the dos. Do have high expectations of crop insurance and work with us in building the program to achieve even more. We certainly want you to support the 508(h) process which meets these changing needs. Do work to help farmers purchase higher levels of insurance. They need more coverage. Do fix the problem facing specialty crop areas and improve the use of crop insurance data for the benefit of farmers.

Last, in closing, please make sure that we make a case for additional funds for the next farm bill. The *ad hoc* disaster was certainly needed, but the money can be better used. Write a budgeted investment. You can strengthen the farm safety net and crop insurance to benefit farmers, ranchers, and taxpayers. Thank you for what you do for this great nation, and I look forward to your questions.

[The prepared statement of Ms. Fowler follows:]

PREPARED STATEMENT OF KATHY FOWLER, OWNER, FOWLER AGENCY, LLC, MEMPHIS, TX; ON BEHALF OF CROP INSURANCE PROFESSIONALS ASSOCIATION

[Chair] Bustos, Ranking Member Scott, and Members of this Subcommittee, thank you for the opportunity to provide testimony today concerning the cornerstone of the farm safety net: Federal Crop Insurance.

My name is Kathy Fowler, and I am an independent agent and business-owner from Memphis, Texas. The Fowler Agency was started in 1988, and heading into our 35th sales year, we serve approximately 350 farm and ranch families across roughly 40 counties primarily in Oklahoma and Texas. The Fowler Agency has served some farm families now for three generations and has more young farmers and ranchers than ever before.

I am here today on behalf of CIPA—the Crop Insurance Professionals Association—the nation's top crop insurance agents. CIPA works hard every day to bring together all segments of the industry and our nation's farm and ranch families in order to improve, promote, and protect Federal Crop Insurance.

CIPA agents write crop insurance in all 50 states, and we take great pride in our work. Our goal is to walk alongside our farmer and rancher customers, helping them through all of their critical financial and risk management decisions. While our job is certainly to counsel our farmer and rancher customers about risk management options under crop insurance, we believe our duty goes beyond this: at CIPA, we take a very holistic approach to helping our producers with all of their financial and risk management needs.

Our focus and pride, individually and collectively as an organization, is doing our job the right way—fully knowing our customer's needs and the risk management options available to them and doing so with the highest ethical standards in order to meet each season's needs and to advance crop insurance for the future.

I am honored and humbled to be here today. The role that our farm and ranch families play in providing for our country's basic needs is a vital one. And, in turn, the policies crafted by this Subcommittee and the full Committee on Agriculture that support our producers are also essential.

It is a bit overwhelming for this farm kid from Memphis, Texas to appear before this important Subcommittee but I hope my testimony—based on my 35 years of experience as an agent and a lifetime of experience as a producer interacting with hard working farm and ranch families—will be a help as you prepare for the upcoming farm bill debate.

Importance of the Farm and Ranch Sector and the Growth in Crop Insurance

We have come through a lot in the last few years.

Through a period of extreme market volatility resulting from trade wars and the global pandemic, most Americans have become much more aware of the interconnectedness of the world—and the extraordinary importance of safeguarding fundamental sectors, including agriculture.

U.S. farmers have endured this incredible volatility in amazing ways—carrying on and boosting productivity as a “critical industry” even when much of the world was shutting down.

And, now, with a relatively poor crop in the Southern Hemisphere and the war in Ukraine threatening a global food crisis ahead, there can be no doubt that U.S. farm and ranch families will be called upon once again to step up to the plate and do all that we can to feed a growing and hungry world, while also clothing and fueling many both at home and abroad.

[Chair] Bustos, Ranking Member Scott, and Members of this Subcommittee, I submit to you that Crop Insurance is the most important tool that our farm and ranch families have at their disposal for making the kinds of investments and taking on the level of risks that we all need them to in order to meet the growing demands the country and the world place on them and to carry on the legacy of their family farms and ranches.

Crop Insurance empowers farm and ranch families to purchase equipment and inputs, to plant the seed, to nurture and harvest their crops, to raise their livestock, and to get to market with confidence because they have something as basic as insurance—something they would not have without Federal Crop Insurance. We have Federal Crop Insurance today because the risks of farming and ranching are so great that multiple peril crop insurance available to all comers would otherwise be prohibitively expensive and therefore unavailable.

Very notably, crop insurance fills the role of providing collateral to agricultural lenders. Without crop insurance, agriculture would likely have to return to asset based lending which contributed to the farm financial crisis of the mid-1980s. We certainly do not want to repeat that crisis which impacted the economies of even the largest U.S. cities. Crop insurance is especially vital to young and beginning farmers and ranchers, socially disadvantaged producers, producers farming new crops, and producers farming or ranching in areas that frequently experience drought.

Crop Insurance offers producers the ability to be more nimble and dynamic in dealing with a highly volatile market and in the face of an increasingly mercurial Mother Nature. Thanks to crop insurance, the American farmer and rancher is much better positioned to meet the challenges ahead in feeding, clothing, and fueling the country and a great many around the world.

Crop Insurance's vital importance has not grown overnight. It has developed over time thanks in no small part to the steady leadership and stewardship of this Subcommittee and the full Committee on Agriculture.

From its inception in 1938 until 1980, Federal Crop Insurance barely limped along.

But, in 1980, when the House Agriculture Committee led the way to creating a public-private partnership with private companies and agents selling and servicing policies and private claims adjusters settling claims, crop insurance began its meteoric rise.

The 1994 crop insurance reforms, advanced by this Committee, and the approval of revenue insurance by the Department of Agriculture in the mid-1990s continued to propel crop insurance forward.

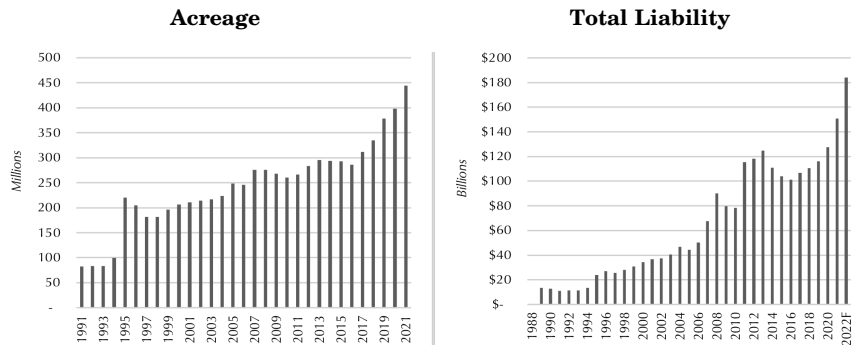
And, finally, the 2000 crop insurance reform legislation, also advanced by this Subcommittee and the House Agriculture Committee, became the legislative capstone of the remarkable achievement that Federal Crop Insurance is today.

As I noted earlier, I am from Memphis, Texas which is also the childhood home of a former Chairman of the House Agriculture Committee, Rep. Larry Combest, who, along with the Ranking Member, Rep. Charlie Stenholm, worked hand in glove in leading the effort to develop and pass the 2000 crop insurance reform—making crop insurance more dynamic so it could better meet the ever changing needs of producers as they work to meet the ever changing needs of the country and the world.

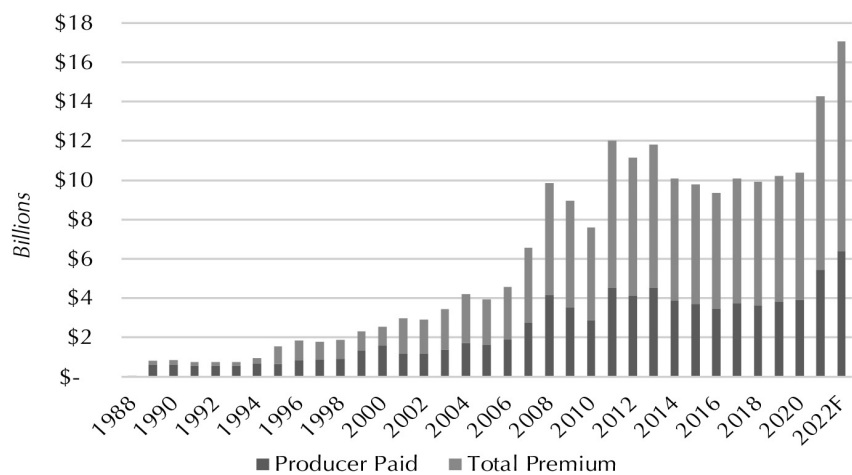
When that bill—the Agricultural Risk Protection Act of 2000—passed, total premium under crop insurance was just over \$2 billion, with 200 million acres insured and with total coverage or liability at around \$35 billion.

This year, farmers and ranchers will spend more than \$6 billion out of their own pockets, to insure more than 450 million acres with what is now approaching \$200 billion in total coverage or liability. Thank you all so much for serving on the Subcommittee and the Committee that made this happen. You are a part of a legacy that has saved millions of American farm and ranch families.

The charts below illustrate this remarkable growth. It is something we, as CIPA—your boots on the ground—take a great deal of pride in. I hope it is also something that you will take great pride in and continue to steward this success story, going forward.



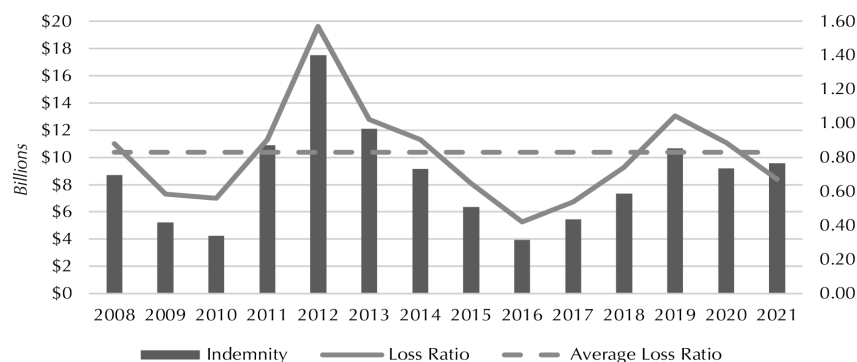
Total Premium



A couple of final points before I leave my introductory remarks. First, while indemnities in crop insurance are an important measure of protection and support provided to farmers and ranchers in their time of need, and while a timely and efficient indemnification of losses is also fundamental to companies and agents competing for producer business through exceptional service, it is not a good measure of the economic value of crop insurance to the farm sector or to our nation as a whole. Indemnities grossly understate the value of crop insurance to producers and the country.

Nevertheless, I do provide the following chart that illustrates the nationwide indemnities paid, as well as the loss ratios over time. This chart illustrates that crop insurance has responded well in times of need, while also balancing out the needs of particular regions in any given year in order to meet the statutory loss ratio of 1.0 which is designed to protect the taxpayer who is also investing in crop insurance.

Yearly Indemnities and Loss Ratio



But, again, this illustration is a low bar in terms of measuring crop insurance’s overall value to producers and the country. The best measure of the actual full value of crop insurance is the broader economic impact of the producer investments protected and dollars leveraged in order for producers to sustain and improve their operations. This has value well beyond the farm to communities across the country.

While CIPA does not currently have a quantitative assessment on this broader value, we believe economic analysis to measure the full effect of covering, through crop insurance, nearly \$200 billion in producer investment that is at risk would be very useful indeed. What precisely has this protection done for agriculture in terms of advancing technology adoption, implement and storage sales, investment in conservation, and so on? We are confident that, in the end analysis, a powerful return on taxpayer dollars invested would be evidenced. As we near the 2023 Farm Bill debate, CIPA will work to ensure that the full benefit of crop insurance is quantified through expert economic analysis.

Second, again, while not a good measure of the overall value or economic value of crop insurance, indemnities paid are a good measure of efficiency. Here, we believe it is remarkable that total indemnities paid consistently exceed total taxpayer cost.

The following table compares total indemnities paid per year to the total Congressional Budget Office (CBO) costs associated with crop insurance (including premium cost-share, financial risk-sharing with private-sector companies, and administrative and operating (A&O) expense reimbursement over the past 10 years).

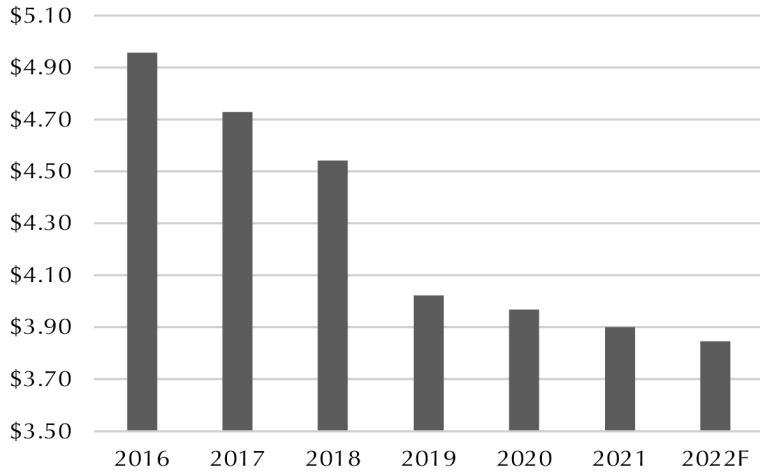
(Dollars in Millions)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	Average per Year
CBO Cost	\$4,810	\$13,734	\$8,244	\$7,280	\$4,157	\$4,208	\$6,445	\$12,290	\$9,358	\$4,591	\$75,117	\$7,512
CY Indemnities	\$17,490	\$12,108	\$9,146	\$6,345	\$3,934	\$5,445	\$7,336	\$10,682	\$9,181	\$9,586	\$91,254	\$9,125

Thus, under crop insurance, we have a tailored risk-management tool that leverages investment in the farm and ranch and which, on a national basis, is consistently paying 20 percent more than the total taxpayer investment in the program. This is a remarkable record of success.

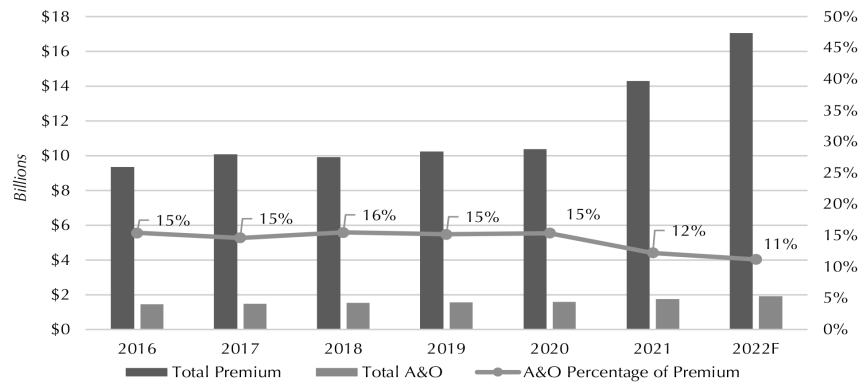
Third, it is important to note the direct impact our crop insurance delivery system has on rural communities across the country. Based on industry data, more than 20,000 people are employed in the sales and servicing of crop insurance nationwide—including another 12,000 in office staff; some 5,000 claims adjusters; and more than 2,000 staff among the 14 current companies. This workforce dots the small- and mid-sized communities throughout the United States. These are folks who keep rural communities economically viable not only by keeping farm and ranch families—who are often the economic lifeblood of rural communities—in business but by directly paying good salaries and wages, and good benefits, to thousands of employees.

The data on crop insurance delivery also shows a remarkable positive trend toward greater efficiency. The chart below shows total A&O costs per acre and as a percentage of premium paid overtime. There are some problems in this area that simply must be addressed and addressed quickly—including the punitive impact of the 2011 cap on specialty crop policy A&O—but in the big picture it should not be overlooked that the agents, loss adjusters, and companies that deliver crop insurance to farmers and ranchers are doing so with incredible efficiency.

Total A&O Per Acre



Total Premium and Total A&O



Key Reasons for the Success of Crop Insurance

As the Committee takes stock of the needs of producers and the policies that serve them, I want to briefly lay out three unique qualities of crop insurance that we, as CIPA, believe are critical to its success and serve as important guideposts for the future.

1. Crop insurance coverage is highly relevant to each farm and ranch. When farmers or ranchers buy insurance, they tailor coverage to the needs of the farm or ranch, and they know they can rely on that contract. Crop insurance policies are financial risk management tools that provide security and peace of mind unique to each family farming or ranching operation so that producers can take care of their land and crops and make investments that will allow them to farm or ranch better each year. Crop insurance is all-inclusive, serving all farm and ranch families. Coverage is based on each producer's own history and risk profile, and producers control how much risk, and which risks they want to cover. By including all comers into Federal Crop Insurance and by avoiding arbitrary restrictions on participation, the crop insurance risk pool is vastly improved and this, in turn, results in lower premiums paid by all producers. Policies such as pay limits and adjusted gross income (AGI) means testing on crop insurance may, at first blush, sound favorable to smaller producers but such policies result in the loss of good risk in the risk pool, resulting in higher premiums for all producers who are left in the pool. In the end analysis, this would harm small farmers and ranchers.

2. Crop insurance is dynamic, changing to meet the needs of producers. As of 2021, Federal Crop Insurance policies were available on 130 crops, often with multiple kinds of insurance options available relative to these crops. These options are owing to the good work of a very high quality Risk Management Agency (RMA) staff in Washington and Kansas City and to the private-sector which has brought forward, through the 508(h) process, many new and important risk management products. Across Republican and Democratic Administrations, the Office of Management and Budget (OMB) has recommended ending the risk management development process. This would be a terrible mistake that would hurt every farmer and rancher in the country, especially those seeking to improve the quality of their coverage. Thankfully, Congress has time and again shown the greater wisdom in rejecting OMB's recommendations. Without such a process, we would not have revenue products, area-based products, margin coverage, special endorsements that cover unique perils, and many other products—especially for specialty crops—that might otherwise have no coverage at all. As the law is currently written, crop insurance is able to continue to adjust in order to better meet needs of all producers, regions, and crops. This has long been and should remain the goal.
3. The delivery system is responsive. As an agent, I compete for business with other agents in my area, some of whom are fellow CIPA agents who may be listening to this hearing today. Generally, we all are on a level playing field—selling the same products at the same price—and so our means of competing for market share are purely based upon service. Thus, the delivery system, whether among agents or among the companies, is highly focused on providing the best service and always improving—including through better understanding of customer needs, better information on what is available to address those needs, better technology, and better flow of data that ultimately redounds to the benefit of the producer customer. Congress has never had to allocate dollars for system upgrades for crop insurance delivery because the private-sector does this. Because of the competitive nature of the business, we have continually implemented upgrades to better meet the needs of more and more producers. This model has worked so well that now crop insurance data is being used in the delivery of Farm Service Agency (FSA) programs, and is even being used as farmers participate in carbon markets to reduce greenhouse gas emissions. In short, this public-private partnership in Federal Crop Insurance, that was first established by Congress back in 1980 and which makes the industry compete for the trust of the producers we serve, has proved to be highly, highly successful and it is a model that is worth building upon.

However, as briefly noted earlier in my testimony, there is a very urgent and serious problem in the structure of A&O for specialty crop policies that must be addressed. This flawed structure has resulted in deep, deep cuts in A&O relative to specialty crop policies in 2021 and very likely in 2022 even as workload relative to specialty crops has increased dramatically. This problem is further explained in a one-pager that is attached to this testimony.

We are very pleased that targeted relief to address this problem was included in the House version of the Agriculture Appropriations bill for FY 2023 with the strong, bipartisan backing of Chairman Sanford Bishop (D-GA) and Ranking Member Andy Harris (R-MD) and many Members of the Agriculture Appropriations Subcommittee and of the House Committee on Agriculture. Thank you very much for your strong support of specialty crop farmers and the agents and loss adjusters who serve them.

Marva Ulleland, a CIPA Board Member and agent with Northwest Farm Credit based in Spokane, Washington, was originally supposed to testify today, but a conflict prevented her from making the trip.

Marva works among agents who write insurance on hundreds of crops throughout the western United States. Insuring specialty crops is complicated, and the labor and time involved to cover such a book of business is very intensive. Many of these customers are smaller, more specialized, and historically underserved producers. Yet, because of the flawed design of the Standard Reinsurance Agreement's cap and its disproportionate impact on specialty crop A&O, the crop insurance policies for these producers and crops are being deeply cut—beyond levels that are sustainable.

In my agency, where we are mainly writing policies for larger row crops, the cuts in A&O per policy are at least mostly offset by rising overall premiums that translate into higher gross A&O before the deep factor (40% reduction in 2021—anticipated 55% reduction in 2022). We are still facing cuts but nowhere near the cuts being felt on specialty crop policies where prices and overall gross premium have

not kept pace. If left unaddressed, I fear these cuts to specialty crop policies will greatly undermine the risk management delivery system for specialty crops and the producers who grow them. It is worth noting that overall A&O has been frozen at 2015 levels, despite inflation, meaning crop insurance is doing more and more for less in terms of real dollars.

This is why CIPA has made it a priority to address this problem facing specialty crops. This is why we worked with Chairman Bishop, Ranking Member Harris, Rep. Jimmy Panetta (D-CA), Rep. Kat Cammack (R-FL), and other Members on a tailored fix that simply puts specialty crop A&O back to its 2020 levels, before the run up in row crop prices. And this is why we are so grateful to Chairman Bishop and Ranking Member Harris for including the provision in their legislation. If this provision becomes law, it will provide a bridge to the next farm bill.

Needs Looking Forward to the 2023 Farm Bill

As we look beyond the basic structural qualities of crop insurance, and more at the particular needs of producers and how we might meet those needs in the most constructive ways, we would first turn to the question of supplemental disaster assistance and the prospects for a standing disaster program, going forward.

It is and always has been the policy of CIPA that the producer comes first. The whole reason we are able to participate in Federal Crop Insurance is based on the need to support and provide meaningful risk management tools to our nation's farmers and ranchers. Therefore, on matters of how and whether to provide supplemental assistance, we are deferential to the wisdom of Congress, and simply want to be available to assist in the design and delivery of any program.

With that said, however, CIPA firmly believes that of the options available to Congress in the next farm bill—providing *ad hoc* disaster assistance, authorizing a permanent disaster program, or further strengthening crop insurance to increase participation rates at higher levels of coverage in order to close deductibles—history has shown that strengthening crop insurance is the best route for the farmer, rancher, and the taxpayer.

In regard to recent *ad hoc* programs, CIPA appreciates that the 2017 Wildfire and Hurricane Indemnity Program (WHIP), the 2018 and 2019 WHIP+, and 2020 and 2021 Emergency Relief Program (ERP) have all generally been crafted to build upon crop insurance and rely on crop insurance data rather than disincentivizing or undermining participation in crop insurance, though there is always room for improvement here.

My agency staff has spent countless hours with our farmers and ranchers helping them understand the calculations and put together the paperwork needed to receive all that they qualified for. This is true of all agents who have worked cooperatively with local FSA staff to help get the job done. This is not the job we are paid to do as crop insurance agents, nor do we receive any compensation or liability protection for our work in this area, but it is part of the service that agents provide to the farm and ranch families we serve because we feel it is our duty to help wherever there is a need. Similarly, during the pandemic, when most offices were shutting down, agencies remained opened to help producers make decisions under crop insurance and to navigate program rules for pandemic-related assistance.

In any event, *ad hoc* disaster programs have evolved over time, and some iterations have been better than others. The recent and ongoing ERP implementation has had its share of anomalies, but since its roll-out in late May the general consensus among farmers and ranchers has been positive in that their experience is that the ERP implementation has been much smoother than that of WHIP+. Here, too, however, there are some exceptions which Senators John Thune (R-SD) and Amy Klobuchar (D-MN) lay out well in their recent letter to the Department of Agriculture. We hope that these issues can be addressed to avoid unintended and inequitable outcomes for producers. Out of all of the *ad hoc* programs approved by Congress since 2017, the best administered was the prevented planting top-up program in 2019 where crop insurance simply used our own data and delivery system to make the additional payments.

CIPA understands there are complications with each approach, and we certainly understand the importance of program integrity and ensuring the data and payments are correct. We also appreciate the trend toward using crop insurance data and delivery systems for the implementation of disaster programs, and would only ask that we be consulted in future deliberations as to how efficiencies and better accountability can be achieved.

As to whether additional *ad hoc* support should be provided, CIPA would note that the political response by Congress in providing additional aid in response to natural disasters is consistent with what we perceive as a real need of producers on the ground.

The business of farming and ranching is increasingly involving higher and higher stakes and tighter and tighter margins. With increasing frequency of severe weather and market volatility, most farmers and ranchers very much wish to reduce their deductibles with higher levels of coverage. Crop insurance is making great strides in this area with products such as the Supplemental Coverage Option, Enhanced Coverage Option, Stacked Income Protection Plan, Margin Protection, Hurricane and Wind Index, and so forth. And, one of the greatest areas of growth in crop insurance is coverage for our dairy farmers and livestock producers. Building anything worthwhile takes time and effort and this is true in the case of crop insurance. But CIPA believes strongly that continued investment and growth in crop insurance to optimize coverage for all producers, all crops, and all regions of the country is the best path forward for farmers, ranchers, and taxpayers. History demonstrates that this approach provides eminently greater certainty and control to producers in managing their risk than *ad hoc* disaster or even a permanent disaster program. Crop insurance is simply the fastest, most efficient way of indemnifying producers for their losses and ensuring that the indemnification is precisely tailored to those losses. Maintaining and strengthening premium support and the development of new and innovative policies to mitigate unique risks are two avenues to achieving stronger crop insurance.

CIPA understands that funding will be a limiting factor in the next farm bill, just as it has been with every farm bill in the past. But we also believe that the cuts made in the 2014 Farm Bill that carried into the 2018 Farm Bill have rendered U.S. farm policy incapable of meeting the needs of U.S. producers.

For this reason, CIPA supports strengthening the farm safety net to ensure that the 2023 Farm Bill is up to the task of supporting our nation's farm and ranch families—and the national security interest of food, fiber, and fuel independence.

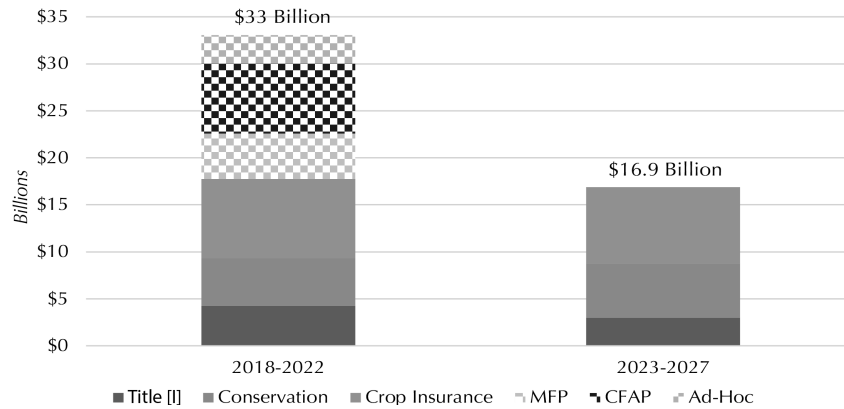
We support a strong Crop Insurance Title that helps farmers weather what Mother Nature and market volatility unleash. We support a stronger Commodity Title that provides a safety net to mitigate the impacts of high and rising foreign subsidies, tariffs, and non-tariff trade barriers. And we support a strong Conservation Title that provides conservation cost-share assistance to help producers continue to advance soil health, water and air quality, wildlife and wildlife habitat, and other important natural resource and conservation objectives. In regard to conservation, it is worth noting that farmers and ranchers must be profitable in order to carry out important conservation initiatives. Crop insurance is vital in this regard. There is from time to time a temptation to blur the lines between an actuarially sound Federal Crop Insurance and certain public policy objectives, such as promoting conservation. The prudent route is to keep crop insurance as purely insurance and address other public policy objectives separately. For instance, climate initiatives fit best within the conservation title to the farm bill. It is best not to mix program purposes because, in the end, it could weaken both mission areas rather than strengthen them.

All titles to the farm bill are very important. However, combined, these three titles provide the basic safety net for farmers and ranchers, a safety net that still accounts for less than ¼ of 1 percent of the total Federal budget. We believe our nation's farm and ranch families are a worthy investment and we would certainly support additional investments in these areas. A fully budgeted investment in these programs could very well obviate the need for future *ad hoc* assistance.

The following chart demonstrates this budget reality, showing our average per year assistance to farmers in the past 5 years compared to the budget baseline going forward.

In the case of Title [I], we believe a portion of the *ad hoc* dollars that were spent under the Market Facilitation Programs and the Coronavirus Food Assistance Programs could be allocated toward strengthening the Commodity Title. And, by the same token, we believe the roughly \$3 billion per year that has been spent under the *ad hoc* programs of WHIP, WHIP+, and ERP could provide better, more equitable, and more reliable assistance if used to strengthen crop insurance.

Budget Baseline Reality



Finally, moving beyond the topic of disaster assistance, we want to briefly touch on a few areas within crop insurance that we believe merit attention. These are outlined in the following bullets, and we look forward to working with you on these issues.

- We would specifically request that **Whole Farm Revenue Coverage** be expanded. The current limit on coverage is too narrow for the high-value specialty crops that use this product. If the limit is maintained, it should be allowed to be a band of coverage that can be placed at a lower level of deductible.
- Relative to **Prevented Planting (PP)** coverage, many improvements have been made but it still has problems. Care must be taken to ensure the assistance is meaningful when needed, but not excessive. It must work in prolonged drought conditions (like those in CA currently) and in flooding conditions alike with appropriate planting windows and dates.
- Regardless of budget allocations, we would encourage Congress to continue to support a robust **508(h) submission process**. The 508(h) and other product development authorities should be aggressively used to craft policies that provide all producers, crops, and regions with optimal coverage, including opportunities to close deductibles by purchasing higher levels of coverage.

Conclusion

Thank you again for this opportunity to offer testimony as you prepare for the 2023 Farm Bill.

Again, I want to offer my sincere thanks for your careful stewardship and support of policies that support our nation's farm and ranch families.

Please know how much we appreciate what you do.

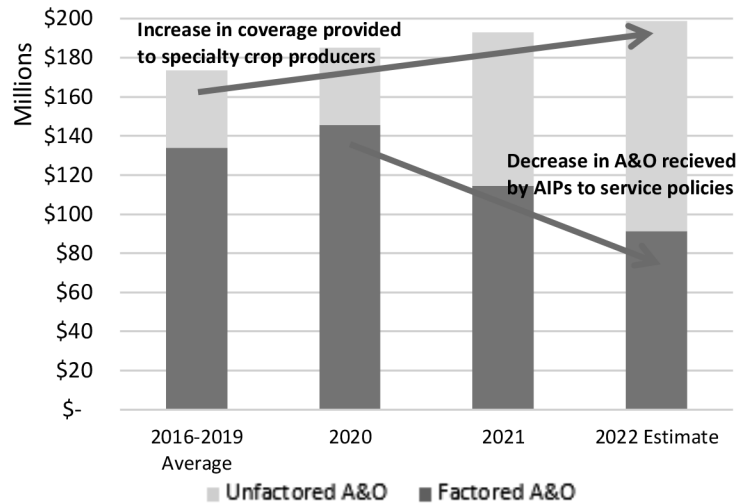
On behalf of all CIPA agents from all corners of our country—thank you and we look forward to working with you on strengthening Crop Insurance and U.S. farm policy.

[ATTACHMENT]

Crop Insurance for Specialty Crops is At Risk

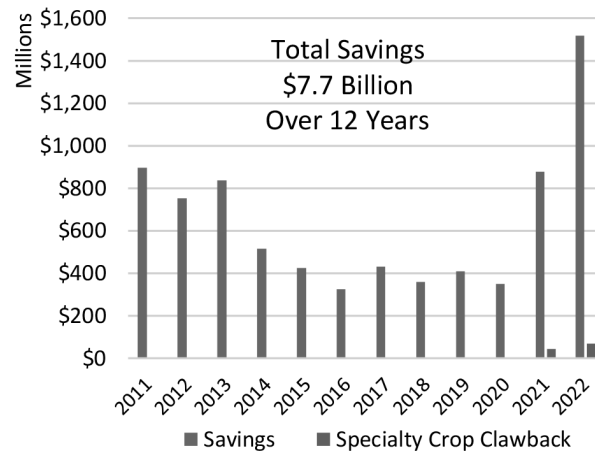
The Problem: Crop insurance needs of specialty crop producers are growing—but resources to service specialty crop producers are plummeting. Crop insurance is the only safety net for specialty crop producers—but their closest advisors helping them manage rising risks are struggling to stay in the business. If left unaddressed, the squeeze is going to harm specialty crop producers because with diminished A&O the sales, servicing, and adjustment infrastructure will be badly damaged.

Specialty Crop A&O



Background:

- The problem is the result of a flawed design in the **2011 cap** on administrative and operating (A&O) expense reimbursement that affects the entire system.
- When commodity prices for major crops like corn, wheat, soybeans, or cotton, go up, the **factor** used to squeeze A&O under the cap goes down, affecting all crops and *disproportionately affecting specialty crops*.
- Specialty crop A&O decreased \$31 million in 2021, even as premium and acres covered increased. It is expected to decrease an additional \$23 million in 2022—a 2 year decrease of 37%.
- In the near-term, this is harming the small businesses that deliver crop insurance to specialty crop producers, who face rising fixed costs. While year-to-year marginal changes are expected, sharp downward swings like the current one are extremely difficult to manage in a single year and impossible to manage over a sustained period of time. For 2021 and 2022, the average agency serving specialty crop clients would have grown roughly 5% in sales and volume, but had their compensation slashed by 37% only because of the flawed design of the A&O cap.
- In short, *the volatility marked by steep decreases for specialty crop areas is not sustainable and needs to be fixed*, especially in the midst of current inflation.

Yearly A&O Savings from the Cap**The Solution:**

- Legislation is needed to stabilize specialty crop A&O back to the 2020 benchmark level. This is a targeted fix that will not affect other crops or parts of the crop insurance industry.
- This legislative solution will not reopen the Standard Reinsurance Agreement (SRA), nor cause any disruption to the business of crop insurance.
- The solution will claw back a tiny fraction of the savings achieved by the cap since 2011 to fix the disproportionate negative impact the cap is having on specialty crops.
- This solution will not make anyone whole—but it will help save a vital risk management tool for specialty crop producers and the thousands of people who advise specialty crop farmers, help them manage risk, and adjust their claims.

The CHAIR. Thank you very much, Ms. Fowler.

Mr. Offerdahl, please begin when you are ready.

**STATEMENT OF ALEX OFFERDAHL, CROP INSURANCE
DIVISION HEAD, WATTS AND ASSOCIATES, INC., BILLINGS, MT**

Mr. OFFERDAHL. Thank you. Thank you for this opportunity to discuss farmer-driven innovation in the Federal Crop Insurance Program through a feature referred to as the 508(h) process. I am the managing partner at Watts and Associates, and we are an agricultural economic research firm that specializes in crop insurance and analysis tools for farmers.

W&A has been one of the most active participants in the 508(h) process since its inception. We work primarily with farmer producer groups to develop new insurance programs tailored to their needs, their crops, and their regions. We are proud to have developed a sizable number of the 508(h) programs that have become important components of the overall 508(h) program. Federal crop insurance has succeeded because its unique design is a partnership between government and private industry. And 508(h) is a perfect example of this partnership.

The 508(h) process was first added to the Federal Crop Insurance Program in 1993 as a special avenue through which farmers could propose new ideas that could be directly incorporated into the insurance program. Innovation through 508(h) is not a peripheral

element of the program. Today, 86 percent of the crop insurance policies that are sold originated as 508(h) proposals. Revenue insurance for example, the largest component of the current program, originated as a 508(h) experiment in the 1990s. Margin insurance, which adds coverage for shifting input costs, a program that already exists today, started in 2014 as a 508(h) experiment. Important coverages for dairies, for hurricanes, for cottonseed, pulse crops, hemp, livestock, and countless enhancements to the program to meet specific changing needs for producers all began under 508(h).

The 508(h) process has several steps. To initiate a new product, a producer group or a crop insurance company will partner with a well-qualified team of developers to create a new program that is designed to solve a problem that the current program does not address. The proposed program has then been carefully vetted by the talented staff at the USDA Risk Management Agency to address any of the critical flaws that might be present in the design that could make it vulnerable to fraud, waste, and abuse. These have to be stamped out before a product can be put on.

Underwriting, premium rates, and compliance are all subject to rigorous technical review, including review by independent outside actuaries, agronomists, and underwriters with experience in crop insurance design. The Federal Crop Insurance Corporation's board then meets with the submitters to quiz them on any outstanding issues before voting on whether or not to approve a new program. We, as submitters, acknowledge that the approval process can be difficult and complex, and there have been many adjustments, including in the 2018 Farm Bill, to improve this process and to make it more accessible for more producers. What you have done is working.

We also need to respect the fact that the FCIC board has a special fiduciary responsibility to taxpayers, and their judgments on program design can affect the fairness to farmer customers and the stability of the agricultural markets we are looking to protect. If a proposal is approved by FCIC and it is implemented in the field, submitters are eligible for reimbursement of their expenses within reasonable bounds. This feature was added in 2000 to try and make it easier for producer groups to engage in this process and to solve their own problems proactively to make the program more adaptable to change. And it is working. Even under this system, if a product is never approved, the developers and the producer groups behind them are responsible for bearing the costs of development themselves.

The 508(h) process is not perfect, and we will have some suggestions for improvements as this process proceeds. But overall, it has been a tremendous success, and some minor adjustments to an overwhelmingly successful program is certainly a nice place to be.

So crop insurance today is a critical part of the agricultural safety net. It is relied on by farmers, by lenders, and by rural businesses in every part of the country. No USDA program reaches more farmers and more crops in more counties than crop insurance. Innovation through the 508(h) process has been a major factor in that success. Please continue what is working.

[The prepared statement of Mr. Offerdahl follows:]

PREPARED STATEMENT OF ALEX OFFERDAHL, CROP INSURANCE DIVISION HEAD,
WATTS AND ASSOCIATES, INC., BILLINGS, MT

Thank you for the opportunity to provide testimony to the Committee regarding the Federal Crop Insurance program and the important role that farmer-driven innovation plays in it through a unique Federal Crop insurance Corporation (FCIC) feature referred to as the 508(h) Process.

Watts and Associates, Inc. (W&A) is an agricultural economic research firm based in Montana, specializing in risk management solutions for American farm producers. We develop products for FCIC, insurance providers, and farm producer organizations. W&A has been one of the most active participants in the 508(h) Process since its inception. We work primarily with farm producer groups to develop new insurance programs tailored to their needs, crops, and regions. We are proud to have developed in a sizeable number of 508(h) programs that have become important components of the overall FCIC program. (See list, *attachment A*)

Federal Crop Insurance has succeeded because of its unique design as a partnership between government and private industry. The government, through the USDA Risk Management Agency (RMA), assures that farmers are offered crop insurance coverage under fair and consistent terms, and FCIC provides a financial backstop through both subsidy, to make participation more affordable, and reinsurance, to protect against extraordinary losses in bad years. Private companies share in the financial risk and compete to provide the highest levels of service to farmers. Together, this system harnesses what government and business each do best.

The 508(h) Process was first added to Federal crop insurance in 1993 as a special avenue through which farmers could propose new ideas that, if they satisfied rigorous technical standards and met important risk management needs, could be incorporated directly into the FCIC system. Innovation through 508(h) is not a peripheral element of the crop insurance program, but rather has become part of its essential mainstream, giving Federal crop insurance a vitality and responsiveness central to its success. About 86% of the policies sold for coverage offered today began as, or have direct roots in, original 508(h) proposals. Revenue insurance, for instance, today the largest single type of FCIC coverage, began in the 1990s as a 508(h) experiment. Margin insurance, which adds coverage for shifting inputs costs, was likewise developed and approved under the 508(h) process in recent years. Important new coverages for dairies, hurricanes, cotton seed, pulse crops, hemp, livestock, and countless enhancements for specific grower needs, all began under 508(h).

The 508(h) process has several steps. To initiate a new 508(h) product, a producer group or crop insurance company will partner with a well-qualified team of developers to create a new policy to solve problems that current offerings do not address. The development team creates all elements of the new program and presents it for consideration to the FCIC Board of Directors. The proposal is then carefully vetted by the Risk Management Agency's staff to assure there are no critical flaws in program design that would make it vulnerable to fraud, waste, or abuse. These experts assure that the proposal can be appropriately implemented with existing infrastructure, and that the premiums charged to producers are fair and reasonable. Underwriting, premium rates, and compliance are all subject to rigorous technical review, including review by independent outside actuaries, agronomists, and underwriters with experience in crop insurance design. The FCIC board then meets with the submitters to quiz them on any outstanding issues, before voting on whether to approve the new program for implementation.

We, as submitters, acknowledge that the approval process is too long, difficult, and complex, despite many adjustments made along the way to improve it. But we also respect the fact that the FCIC Board has special fiduciary responsibilities where taxpayer funds are involved and where their judgments on product design can affect fairness to farmer-customers and the stability of related agricultural markets. We take these responsibilities very seriously and understand that their care and analytic rigor are an important benefit of the program.

If a proposal is approved by FCIC and implemented in the field, the submitters are then eligible for reimbursement of reasonable development and maintenance costs. This feature was added by Congress in the 2000 Agricultural Risk Protection Act to encourage farm organizations to play a larger role in 508(h) by assisting them in bearing the financial risk of product development. Even under this system, if a product is never approved, the developers and the farmer-partners bear the loss of their development costs. Total reimbursement for development and maintenance costs in 2020 was about \$2.8 million, or about $\frac{3}{100}$ of 1 percent of the \$9.8 billion in premiums generated that year, of which some 86% was written to policies rooted in 508(h) submissions.

The 508(h) Process is not perfect. The high data standards imposed by the review process can make it difficult to create new policies for specialty, minor, or emerging crops. FCIC has imposed strict limits on the reimbursement of costs for maintaining and improving products after they are launched, making it difficult for developers to continue to invest in their ongoing success. Development teams could do a better job of engaging with crop insurance companies and with stakeholders to make them aware of forthcoming products and embrace their valuable input. Every new product introduces additional complexity and costs; when a new product is introduced and fails in the marketplace, there should be a clearer process to sunset it. Each of these challenges are worthy of consideration, but they represent minor adjustments to an overwhelmingly successful program.

Crop insurance today is a central part of the agricultural safety net, relied on by farmers, lenders, and rural businesses in every part of the country, and reaching more crops and farmers than any other USDA program. It is a public and private partnership that has grown and evolved, continually innovating to better meet farmers' needs, and 508(h) is the proven driver of that innovation. Again, I thank you for the opportunity to address the Committee and I will be happy to take any questions.

ATTACHMENT A

Selected Products Developed by Watts and Associates

Product (Offer Period)	Acres	Liability	Premium	Indemnity	Cumulative Loss Ratio
Margin Protection (2016–2021)	6,902,261.00	\$4,724,770,131	\$281,226,341	\$41,355,130	0.147
Popcorn Revenue (2012–2021)	1,966,185.00	\$1,213,365,478	\$87,753,003	\$72,610,363	0.827
Area Popcorn (2015–2021)	133,071.00	\$127,568,366	\$9,323,908	\$4,070,980	0.437
Specialty Soybeans (2010–2021)	2,951,824.00	\$940,798,362	\$98,292,024	\$56,014,325	0.570
Dry Pea and Dry Bean Revenue (2013–2021)	16,114,929.00	\$4,269,363,801	\$751,081,743	\$807,870,089	1.076
Enhanced Coverage Option (2021)	7,101,291.00	\$409,498,137	\$221,652,780	\$46,928,524	0.212
Totals*	35,169,561.00	\$11,685,364,275	\$1,449,329,799	\$1,028,849,411	0.710

*W&A developed additional programs not represented in these data. Specialty Corn and Canola programs were ceded to RMA for operation. Malt Barley Endorsement and Cottonseed Endorsement are both inexorably linked to underlying policies and therefore should not be represented as in insurance experience as if they are distinct. W&A's role in other product developments are contributors or as developers under contract to USDA Risk Management Agency are omitted from this listing.

The CHAIR. Thank you, Mr. Offerdahl.
Mr. Haag, you are now recognized for 5 minutes.

**STATEMENT OF TOM HAAG, FIRST VICE PRESIDENT,
NATIONAL CORN GROWERS ASSOCIATION, EDEN VALLEY, MN**

Mr. HAAG. Chair Bustos, Ranking Member Austin Scott, and Members of the Subcommittee, thank you for the opportunity to testify today. My name is Tom Haag. I am a fourth-generation family farmer in south central Minnesota where my son and I grow over 1,700 acres of corn and soybeans.

Federal crop insurance is a major pillar of risk management for the vast majority of corn farmers. Simply put, the public-private partnership of crop insurance works and plays a significant role for agriculture in the wake of natural disasters. As growers sit down with their lenders and make plans for the upcoming crop year, we spend a good amount of time discussing our cost of inputs, crop rotations, and making our market strategies. We also work through the Federal crop insurance coverage options with our lenders and our crop insurance agents in order to purchase the policies that work best for our farms.

In 2021, corn farmers bought more than 587,000 Federal crop insurance policies, insuring over \$52 billion worth of liabilities. Nationwide, there was coverage on 83 million acres of corn with an additional 10 million acres that had companion endorsement policies. In my home state alone, Minnesota, were over 42,000 policies,

which covered 8 million acres of corn. The bulk of corn growers purchase revenue protection, which protects lost revenue due to production loss, changes in price, or both. Built into these policies is important coverage against prices rising at harvest time. Corn growers also have access to Supplemental Coverage Option, the Enhanced Coverage Option, margin protection policies, and Whole-Farm Revenue Protection.

Implementation of the farm bill has been very smooth. The Crop Insurance Title allowed for the enterprise units to include land across county lines and the creation of multi-county enterprise units. Corn growers are pleased with the increased coordination between USDA agencies, including the Farm Service Agency, aligning deadlines for commodity programs with the crop insurance sales closing dates, and RMA working with the Natural Resources Conservation Service to allow cover crops as a qualifying good farming practice.

The 2018 Farm Bill included direction for RMA to research and develop new policies, including the quality loss option. While it has not solved many of the issues that growers face when confronting quality losses such as vomitoxin and low test weights, we appreciate that the option is available. In 2020, RMA released the Hurricane Insurance Protection-Wind Index policy, which provides coverage on over 70 crops, including corn.

Since the 2018 Farm Bill, agriculture has faced multiple weather patterns. During the planting season this year, growers across the Northern Plains had delays due to cold weather and wet weather. For many producers, droughts continue to be a major cause for concern this year. Approximately 30 percent of corn production is within an area experiencing drought conditions.

When widespread disasters strike crop insurance companies are generally able to provide timely loss adjustments and to quickly process the bulk of indemnity payments. While individual growers are not made whole, crop insurance provides the tools and ability to recover and continue operating into the next year. NCGA and affiliated state associations continue to lead and partner with other entities for the creation of new risk management tools. We have been successful in developing policies, including the widely adopted trend-adjusted yield endorsement and the recent endorsement for corn growers who split-apply nitrogen.

Last week, NCGA held our Corn Congress summer fly-in. Corn Growers stressed that our number-one priority for the farm bill is to protect crop insurance from the harmful budget cuts and reforms. The result of our nationwide survey shows that corn growers overwhelmingly choose the Crop Insurance Title as the most important, and that cuts to the Federal crop insurance would negatively impact our farming operations.

In closing, we are grateful that the Agriculture Committee prevented attempts at harmful reductions to crop insurance. We appreciate your consideration of our views and the need for our producers to have effective and affordable risk management tools. Thank you.

[The prepared statement of Mr. Haag follows:]

PREPARED STATEMENT OF TOM HAAG, FIRST VICE PRESIDENT, NATIONAL CORN
GROWERS ASSOCIATION, EDEN VALLEY, MN

Chair Bustos, Ranking Member Austin Scott, and Members of the General Farm Commodities and Risk Management Subcommittee, thank you for the invitation and opportunity to testify today.

My name is Tom Haag. I am a fourth-generation family farmer in south-central Minnesota where my son and I grow more than 1,700 acres of corn and soybeans.

I currently serve as the First Vice President of the National Corn Growers Association (NCGA). Founded in 1957, we are a farmer-led trade association that works with our affiliated state associations to help protect and advance corn growers' interests. The NCGA mission is to create and increase opportunities for corn growers and our vision is to sustainably feed and fuel a growing world.

On behalf of the nearly 40,000 dues-paying corn farmers nationwide and more than 300,000 corn growers who contribute to corn promotion programs in their states, thank you for your public service and dedication to agriculture, rural America, and the farm economy.

This morning, I will focus on the importance of Federal crop insurance to corn growers, highlight successes from the 2018 Farm Bill, and provide some early thoughts on the development of the next farm bill.

Importance and Use of Crop Insurance for Corn

Federal crop insurance is a major pillar of risk management for the vast majority of corn growers. Simply put, the public private partnership of crop insurance works and plays a significant role for agriculture in the wake of natural disasters.

Every year across the country, growers sit down with their lenders to strategize and make financial plans for the upcoming crop year. While we spend a good amount of time discussing the costs of inputs, crop rotations, and our marketing strategies, we also work through our coverage options under Federal crop insurance coverage.

The role and responsibility of crop insurance agents in delivering the program is immense. We value the advice from our agents, who compete solely on service, as we purchase the policies and endorsements that best work for our farms and our risk profiles.

These individual farmer, lender, and agent conversations about risk management add up. According to the Risk Management Agency (RMA) Summary of Business, in 2021, corn farmers bought over 587,000 Federal crop insurance policies, insuring over \$52 billion in liabilities. Nationwide, these purchases meant that there was much needed Federal crop insurance coverage on over 83 million acres of corn, with an additional 10 million acres that had companion and endorsement policies. In my home state of Minnesota alone, last year there were over 42,000 corn policies sold covering more than 8 million acres of corn.

The bulk of corn growers purchase revenue protection, which protects against loss of revenue due to a production loss, change in price, or a combination of both. In 2021, revenue protection policies alone covered over 76 million acres of corn. Built into these policies is important coverage against prices rising at harvest time, which is critical coverage for farmers who forward sell their corn and other crops, as well as livestock producers who produce their own grain. As producers make decisions on their policies, they can choose to exclude harvest price protection. However, less than 600,00 acres of corn were covered under this type of exclusion last year. Yield protection policies, which protects against a production loss, covered an additional 4 million acres of corn in 2021.

Corn growers also have access to many endorsements and options including several area wide policies. In 2021, over 4.4 million acres had coverage through the Supplemental Coverage Option (SCO) and 3.5 million acres had coverage through the new Enhanced Coverage Option (ECO). The policies are optional endorsements where growers can pay for additional area-based coverage for a portion of their underlying crop insurance policy. While not at the scale of these revenue, yield, and area wide policies, corn growers also purchase margin protection policies, whole-farm revenue protection (WFRP) and the new hurricane insurance protection—wind index (HIP-WI).

Implementation of the 2018 Farm Bill

During development, passage, and implementation of the 2018 Farm Bill, NCGA's top priority has been to maintain support for a robust crop insurance program. Both the House and Senate Agriculture Committees were able to defeat attacks to the program and also found ways to strengthen Federal crop insurance. Thank you for providing the certainty and predictability of this proven program.

Overall, implementation of the farm bill and the crop insurance title in particular has been fairly smooth. RMA continues to be a great partner with producers and commodity organizations. Agency leadership and staff have open lines of communication with stakeholders and regularly engage with producer groups.

A key provision in the crop insurance title is the allowance for an enterprise unit to include land across county lines and the creation of multi-county enterprise units. Corn growers advocated for these changes which enhanced program integrity and resulted in savings for the taxpayer and farmer. We were pleased that RMA immediately implemented these provisions.

Corn growers are also pleased with results stemming from increased coordination between USDA agencies. The 2018 Farm Bill allows for producers to have an annual election between the major commodity programs, Agriculture Risk Coverage and Price Loss Coverage. Starting in 2021, the annual election deadline for these Farm Service Agency (FSA) programs are now aligned with majority of crop insurance purchase deadlines for row crops. The unified decision deadline and sales closing date of March 15 each year helps ease implementation for USDA, crop insurance agents, and ultimately producers.

RMA has also continued to improve coordination and policies with the Natural Resources Conservation Service (NRCS). The crop insurance title specified that cover crops qualify as a good farming practice if the grower follows NRCS guidelines. This provision and successful implementation have resulted in decreased barriers, both real and perceived, for growers implementing this important conservation practice.

USDA should be commended for their efforts to further reduce the reporting burden on producers. Corn growers appreciate the agencies' efforts to allow farmers to submit additional information electronically, which may reduce the number and length of in-person visits to crop insurance agents and FSA county offices. For example, during implementation of the recent Emergency Relief Program, FSA was able to use crop insurance data that was previously submitted to the department in order to streamline applications for phase one of the program.

Unfortunately, data transfer and compatibility issues between USDA agencies continue to exist and can cause headaches and inequities for producers. NCGA supports the continuation of the Acreage and Crop Reporting Streamlining Initiative (ACRSI) and similar efforts to improve the farmer customer experience and create greater efficiency for multiple program delivery. The agencies are already working closer together and should continue to find additional ways to share common data, while maintaining strict producer confidentiality protections. For these efforts to be successful, USDA should also continue to work with external stakeholders including approved insurance providers, crop insurance agents, extension professionals, and producer groups.

Quality Losses and Hurricane Coverage

The 2018 Farm Bill included direction for RMA to research and develop new policies including coverage for quality losses and hurricane coverage. Under certain abnormal circumstances, weather related challenges can cause and exacerbate quality issues for corn and other commodities that result in market discounts. In extreme cases growers may be unable to sell their grain. Common quality loss issues during corn production and harvest range from mycotoxins, such as aflatoxin and vomitoxin, to low test weights. Historically, crop insurance could compound these issues by reducing a producer's actual production history (APH) despite the farmer having normal or average production in terms of yields, even if a crop insurance indemnity was not triggered.

RMA has developed and implemented the Quality Loss option (QL). Producers that chose the option are able to exclude the quality loss from an Actual Production History (APH) database.

This option became available in 2021 and is offered at an actuarially sound premium rate. While the QL option has not solved many of the non-crop insurance issues that growers face when confronting quality losses, corn growers appreciate the option where it is available.

In 2020, RMA released the Hurricane Insurance Protection—Wind Index (HIP-WI). The policy covers a portion of the deductible of the underlying crop insurance policy when a county is within the area of sustained hurricane-force winds. HIP-WI provides coverage for 70 different crops, including corn, and is available in counties near the Gulf of Mexico, the Atlantic, and Hawaii.

In 2021, corn growers covered 1.5 million acres and \$212 million in liabilities through the HIP-WI endorsement. In the same year, according to the RMA summary of business, there were \$83.7 million in indemnities for all eligible crops. The top five largest indemnities by crop included cotton, rice, sugarcane, corn and soy-

beans. Corn growers are appreciative of the efforts by Congress and the RMA to expand Federal crop insurance coverage to producers who experience these types of events.

Weather Related Disasters

Since the 2018 Farm Bill was signed into law, agriculture has faced difficulties with too much and too little rain, as well as multiple unique weather events. As Congress intended, crop insurance provides farm owners and operators the ability to plan for and respond to weather-related losses outside of their control. Given the size and geographic footprint of corn acreage in the United States, weather related yield losses are likely to impact at least some corn growers each year.

During this year's planting season, growers across the Northern Plains faced delays due to cold and wet weather. In some areas, corn growers were unable to access fields by the crop insurance final planting date. Under existing policies, producers who are unable to plant due to an insurable cause of loss may receive a prevented planting indemnity or receive a reduced insurance guarantee if they plant within the late planting period. Producers also have the flexibility to choose to plant a different crop with a later final planting date. Prevented planting is essential coverage during the critical planting season.

Despite these early challenges with wet weather, most producers were able to plant a crop. USDA's National Agricultural Statistics Service (NASS) latest report on June 30, 2022, estimates that 89.9 million acres of corn have been planted in the United States for 2022. This represents a much smaller reduction to corn acreage than previously forecast by USDA.

For many producers, drought continues to be a major cause of concern and loss. As of July 12, 2022, the U.S. Drought Monitor estimates that approximately 30% of corn production is within an area currently experiencing drought conditions. This includes 98% of corn in Colorado, 96% in Texas, 78% in Louisiana, 76% in Kentucky and 70% in Tennessee.

While many corn producing areas are currently experiencing some level of drought, there are notably areas of D3 extreme drought in Colorado, Nebraska, Kansas, and Iowa. Growers also face D4 exceptional drought in Kansas and Texas.

In 2021, U.S. growers planted 93.4 million acres of corn, which produced over 15.1 billion bushels with a value estimated at \$82.3 billion. Widespread drought and intense heat impacted much of the corn belt during the growing season. Nationwide crop insurance indemnities to corn growers totaled \$1.8 billion.

During the 2020 growing season, corn growers across Nebraska, Iowa, Illinois, and Indiana suffered major losses due to the devastating derecho. The storm and accompanying damaging winds hit millions of acres of highly productive crop land in August before corn harvest could begin. Overall crop insurance indemnities to corn growers totaled \$2.6 billion for the year.

Corn production was also heavily impacted in 2019 by wet weather conditions during planting the season with flooding and excess moisture across the high plains and throughout the Missouri River Basin. The wet spring prevented many farmers from accessing flooded fields. Nationwide, 2019 set a record with over 19 million acres of cropland reported as prevented from being planted. This included over 11 million acres of corn that were reported as prevented from being planted. For 2019, nationwide crop insurance indemnities to corn growers, including prevented planting coverage, totaled \$4 billion.

When widespread disasters like these strike, crop insurance companies are generally able to provide timely loss adjustments and to quickly process the bulk of indemnity payments. While individual corn growers are not made whole from their losses, crop insurance provides the tools and ability to recover and continue operating into the next crop year.

Corn growers also appreciate RMA's responsiveness to producer concerns in the wake of disasters. For example, in 2021 RMA made permanent previous flexibility for producers with crop insurance to hay, graze or chop cover crops at any time and still receive 100% of the prevented planting payment. RMA updated this policy in part to support the use of cover crops, an increasingly important conservation practice if producers are unable to plant a row crop.

Crop Insurance Product Development

Corn growers understand and appreciate that in order to meet the growing list of challenges and demands of tomorrow, Federal crop insurance policies must not be stagnant. NCGA policy on risk management clearly states that we, "support the development of new and innovative risk management products to provide a wide array of tools to help producers manage price and yield risks."

NCGA and our affiliated states continue to lead and partner with other forward-thinking entities for the study and creation of new risk management tools. Whether through Federal research and development or private development and approval of Federal policies, NCGA and our state associations have been successful in developing policies that follow sound insurance principles and are actuarially appropriate. Examples of successful efforts include the widely adopted Trend-Adjusted Yield Endorsement and the recent endorsement for corn producers who split apply nitrogen.

Corn growers and producers of other commodities and specialty crops have all benefited from the ability for the Federal Crop Insurance Corporation Board to authorize and approve development of new products, endorsements, and options.

Future Farm Bill Recommendations

Corn growers appreciate the work by this Subcommittee and the full Committee to review implementation of the 2018 Farm Bill. Last week, corn growers from across the country were in Washington, D.C. as part of our “Corn Congress” summer fly in. Throughout the week, corn growers stressed with their Members of Congress the important role that the farm bill plays in their lives and rural America. Our number one priority for the farm bill is to protect crop insurance from harmful budget cuts and reforms.

The results from our recent nationwide survey of grower members and non-members provided key intelligence that backs up our policy stance. When asked, “which of the farm bill titles are the most important to you?” corn growers overwhelmingly chose the crop insurance title. In the survey work, growers also stressed that cuts to Federal crop insurance, would negatively impact their farming operations.

As a grassroots and member driven association, NCGA and our state affiliates are continuing to do our homework so we can provide additional recommendations as the Committee turns its’ attention to developing and negotiating the next farm bill. Our grower led Action Teams met last week and held discussions on USDA programs and policies as we continue to develop additional recommendations for accessible and defensible risk management tools.

In the ramp up to the farm bill, NCGA continues to engage in multiple broad-based coalitions on potential recommendations. As a steering committee member of the Food and Agriculture Climate Alliance (FACA), NCGA is involved in the FACA’s farm bill working groups. This coalition work includes a working group focused on exploring proposals and limitations of potential climate policy in the crop insurance, commodity, and credit titles heading into the 2023 Farm Bill. NCGA also continues to be involved with the AGree Economic and Environmental Risk Coalition (E2 Coalition) that focuses on recommendations for agriculture data and reducing policy barriers to conservation practice adoption.

While crop insurance continues to be our top farm bill priority, NCGA is also focused on strengthening the producer safety net, supporting voluntary conservation programs, and bolstering the international market development programs. We look forward to sharing more specific NCGA policy priorities and coalition recommendations in the months ahead.

Closing

Hearings like today’s are important opportunities for users of USDA programs to accurately explain and defend the programs to fellow growers, taxpayers, and other interests. We understand that the complexity of the farm economy and Federal policies require constant education of Members of Congress on the importance and structure of the safety net.

NCGA will continue to highlight lessons we have learned from the past, including when some groups and Members have pushed the mistaken belief that crop insurance programs should be significantly reduced or reformed. We are grateful that leaders from the Agriculture Committees have stood up and prevented these previous attempts at harmful reductions to crop insurance.

In closing, NCGA recognizes the difficult task ahead for the Committee to develop the next farm bill. We understand that there will be continued budget challenges and varied approaches to confronting the many current issues impacting agriculture. We appreciate your consideration of our views regarding crop insurance programs and the need for producers to have access to effective and affordable risk management tools.

The CHAIR. Thank you Mr. Haag.

Mr. Cromley, who is with us virtually, you can begin when you are ready.

**STATEMENT OF LEE CROMLEY, GEORGIA STATE CHAIRMAN,
AMERICAN COTTON PRODUCERS, BROOKLET, GA**

Mr. CROMLEY. Thank you, Madam Chair and Ranking Member Scott, for the opportunity to speak to you today. Thank you for all the good work you do for agriculture. I am Lee Cromley from Brooklet, Georgia. I am a sixth-generation farmer, farming with my brother Charlie. We farm 2,500 acres of cotton and peanuts. Our farm is located west of Savannah about 60 miles off the Atlantic Coast, which puts us in the target of hurricanes on a fairly regular basis. I am testifying today on behalf of the members and growers of National Cotton Council.

Crop insurance is an absolute necessity for cotton producers. Improving the risk management options for producers has been a top priority for the cotton industry for many, many years. A key component of crop insurance is the public-private partnership between the government and private companies that offer products, as well as the agents who service these policies.

In the current economic climate [inaudible] essential tools to counteract these challenges is a must for any cotton grower. One of our industry's great achievements was the creation of the Stacked Income Protection Plan for upland cotton. STAX is an essential risk management tool for many producers and should be protected as the upcoming farm bill is developed.

In the fall of 2016, the Southeast received tremendous amounts of rainfall just prior to harvest due to Hurricane Matthew. Many producers in the region experienced substantial quality discounts for lint and seed. We are grateful that in 2018 RMA aligned cotton quality loss calculations with other commodities by changing the deductible to a trigger set at ten percent, thus allowing growers to fully capture the amount of quality loss.

In 2020, excessive rainfall and extended periods of overcast skies caused the splitting of our cotton seed inside the fiber, leading to major quality discounts for Georgia growers. The quality loss adjustment created by USDA Farm Service Agency for 2018 and 2019 was bureaucratic with many implementation challenges. It is vital that when phase 2 of the Emergency Relief Program for quality losses is developed, producers like me and others who suffer quality losses due to seed coat fragments are eligible for this assistance.

Georgia cotton growers lost [inaudible] due to the devastating impacts from Hurricanes Matthew, Irma, and Michael. These producers saw record crops wiped away in an instant due to the powerful forces of Mother Nature. After these storms, RMA created the Hurricane Insurance Protection-Wind Index. This product is an affordable risk management option for many growers who are at risk yearly due to their proximity to the coast.

While we are grateful to RMA for the creation of this new hurricane product, additional improvements are needed to make this more effective. Growers who have suffered losses from tropical storms and depressions are ineligible for the hurricane policy. Tropical storms and other events like this can have damaging winds, while also leaving devastating amounts of rainfall, causing flooding that would decimate a cotton crop, especially near harvest.

RMA should also hopefully create a multi-peril crop insurance product that gives growers credit for the crop that is in the field

instead of only crediting growers for their annual production history. For example, in 2018, growers in Georgia, Florida, and Alabama were expecting record to near-record cotton yields until Hurricane Michael. Unfortunately, growers were only compensated on the APH information well below actual yields on the farm. Growers should have an option to purchase a product that will insure the actual crop value of the farm.

In the past, there have been proposals that would impose an arbitrary means test to crop insurance or limit the amount of premium discount a producer can receive. I strongly urge you to oppose any attempt to implement any proposals along these lines. Limiting access to these products would cause some producers to completely exit the insurance market, which in turn would alter the risk pool and potentially increase the premium rates across the board.

I am grateful for the opportunity to testify today. We look forward to working with the Committee to address the necessary improvements discussed in today's hearings, and I will be happy to answer any questions at the appropriate time. Thank you so much.

[The prepared statement of Mr. Cromley follows:]

PREPARED STATEMENT OF LEE CROMLEY, GEORGIA STATE CHAIRMAN, AMERICAN COTTON PRODUCERS, BROOKLET, GA

Introduction

Good morning, I am Lee Cromley, from Brooklet, GA. I am a sixth generation farmer along with my brother Charlie, and we farm 2,500 acres of cotton and peanuts.

I am also actively involved with the National Cotton Council, a Georgia State Chairman of the American Cotton Producers, Second Vice-President of Cotton Council International, former President and Chairman of Southern Cotton Growers, and Vice-Chairman of the Georgia Cotton Commission.

The National Cotton Council (NCC) is the central organization of the United States cotton industry. Its members include producers, ginners, cottonseed processors and merchandizers, merchants, cooperatives, warehousemen, and textile manufacturers. A majority of the industry is concentrated in 17 cotton-producing states stretching from California to Virginia. U.S. cotton producers cultivate between 10 and 14 million acres of cotton with production averaging 12 to 20 million 480 lb bales annually. The downstream manufacturers of cotton apparel and home furnishings are in virtually every state. Farms and businesses directly involved in the production, distribution and processing of cotton employ more than 115,000 workers and produce direct business revenue of more than \$22 billion. Annual cotton production is valued at more than \$5.5 billion at the farm gate, the point at which the producer markets the crop. Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 265,000 workers with economic activity of almost \$75 billion. In addition to the cotton fiber, cottonseed products are used for livestock feed and cottonseed oil is used as an ingredient in food products as well as being a premium cooking oil.

Crop Insurance Overview

Grower access to a strong and fully accessible suite of crop insurance products that producers can purchase to tailor their risk management to their specific needs to address yield and price volatility within the growing season is a critical component to manage yield and revenue risks on the farm. A key component of crop insurance is the public-private partnership between the government and the private companies that offer the products, as well as the agents who service the policies.

Crop insurance is an absolute necessity for cotton producers. Improving the risk management options for producers has been a top priority for the cotton industry for many years. The Council has long supported methods that would make higher levels of insurance coverage more affordable. There is no worse place for a producer to find themselves than having invested in a crop all year only to realize their overall yield or revenue has fallen to a point at or near their insurance guarantee. In the current economic climate of higher input costs, access to the essential tools to

counteract these challenges is a must for any cotton grower. Over the years, with the help of Congress and USDA's Risk Management Agency (RMA), crop insurance participation has grown substantially. In 2021, 10.8 million acres of upland cotton were protected by some form of crop insurance. This represents more than 97% of all upland acres.

Stacked Income Protection Plan (STAX)

Area and county wide policies are also giving producers additional options to manage production risks. One of our industry's great achievements was the creation of the Stacked Income Protection Plan (STAX) for upland cotton. STAX is a crop insurance product for upland cotton that provides coverage for a portion of the expected revenue in a grower's production area, most often your county. STAX may be purchased as a stand-alone policy, or in conjunction with another policy referred to as a "companion policy." Companion policies may include Yield Protection, Revenue Protection, Revenue Protection with the Harvest Price Exclusion, and any of the Area Risk Protection Insurance policies.

STAX remains a critical tool since cotton's reestablishment as a covered commodity through Area Revenue Coverage (ARC) and Price Loss Coverage (PLC) with the formation of the seed cotton program in the 2018 Bipartisan Budget Act. With the passage of the 2018 Farm Bill, cotton producers, beginning with the 2019 crop, were prohibited from enrolling seed cotton base acres in ARC or PLC if STAX was purchased. This option created a choice with most producers choosing to enroll their seed cotton base acres in PLC instead of purchasing STAX. However, there are many growers across the Cotton Belt who do not have historic seed cotton base acres to enroll in PLC and STAX is an effective and affordable option for these producers.

In 2022, with the recent uptick of commodity prices, including cotton lint and cottonseed, many growers with seed cotton base acres declined to enroll in ARC or PLC and purchased STAX. On my farm in Georgia, I have bought STAX every year on farms where there is no seed cotton base. This year, I purchased STAX on all my farms. STAX is an essential risk management tool for many producers and shallow loss programs like STAX should be protected as the upcoming farm bill is developed.

Quality Loss

In the fall of 2016, South Carolina, North Carolina, Virginia, and parts of Georgia, including my farm, received tremendous rainfall just prior to harvest due to Hurricane Matthew. For many of these producers, yields were in line with their annual production history (APH), but the harvested cotton had severe quality issues, resulting in severe market discounts. At the time, cotton's base policy included a quality loss adjustment, but the provision included a 15% deductible and with quality losses in excess of 15% incorporated into the production to count, thus lowering a producer's yield for insurance purposes. Many growers in the Southeast were not familiar with the specific calculations of the quality loss adjustment since it was rarely used. Many producers in this region experienced substantial quality discounts for lint and seed, yet due to the quality deductible and relatively shallow quantity losses, received no benefit from the quality loss adjustment. We are grateful that in 2018 RMA aligned cotton quality loss calculations with other commodities by changing the deductible to a trigger set at 10%, thus allowing growers to fully capture the amount of quality loss.

In addition, in the 2018 Farm Bill, Congress directed RMA to enhance the quality loss provisions. This option became available for the 2021 crop year and allows pre-quality production amounts to be used to establish the APH instead of post-quality production amounts.

In 2020, excessive rainfall and extended periods of overcast skies caused the splitting of the cottonseed inside the fiber leading to major quality discounts for Georgia growers. The Quality Loss Adjustment (QLA) created by USDA Farm Service Agency (FSA) from 2018–2019 was bureaucratic with numerous implementation challenges that placed the responsibility on reporting quality losses on merchandizers and gins. Moreover, restrictive quality loss thresholds as well as prohibitions on producers who had a WHIP+ claim and a crop insurance indemnity from participating made QLA ineffective for many producers. It is vital that when Phase 2 of the Emergency Relief Program (ERP) for quality losses is developed, producers like me and others who suffered quality losses due to seed coat fragments are eligible for assistance.

Hurricane Insurance Protection-Wind Index (HIP-WI)

According to the University of Georgia College of Agriculture and Environmental Sciences, Georgia's cotton growers lost \$1.1 billion due to the devastating impacts

from Hurricanes Matthew, Irma, and Michael. These producers saw record crops wiped away in an instant due to the powerful forces of Mother Nature.

After these storms, RMA created HIP-WI that covers a portion of the deductible of the underlying crop insurance policy when a county, or adjacent county, is within the area of sustained hurricane-force winds. The coverage provided by HIP-WI can be combined with the Supplemental Coverage Option (SCO) and the Stacked Income Protection Plan (STAX) when acreage is also insured by a companion policy.

HIP-WI provided coverage for 70 different crops including cotton and is available in counties in the vicinity of the Gulf of Mexico and the Atlantic, as well as Hawaii. This product is an affordable risk management option for many growers who are at risk yearly due to their proximity to the coast.

While we are grateful to RMA for the creation of HIP-WI, additional improvements are needed to make it more effective. Growers that suffered losses from tropical storms and/or depressions are ineligible for HIP-WI since the product is exclusive to hurricanes. Tropical storms or other events can have damaging winds while also leaving devastating amounts of rainfall causing flooding that will decimate a cotton crop especially near harvest.

RMA should also create a multi-peril crop insurance product that gives growers credit for the crop that is in the field instead of only crediting growers for their annual production history (APH). In 2018, growers in Georgia as well as the Wiregrass region of Alabama and the Florida Panhandle were expecting record to near-record cotton yields until Hurricane Michael, one of the most powerful hurricanes ever to hit the United States. Instead of receiving indemnities on crops that were yielding 1,000 to 1,500 pounds an acre, growers were only compensated on APH information well below the actual yields on the farm. Growers should have an option to purchase a product that will insure their expected crop value.

APH looks back at a grower's history over a 10 year production window to determine the insurable value of the crop. However, producers continue to see annual improvements in their crop yields due to constant improvements in crop technologies and more efficient production practices, many of which contribute to soil health. These improvements often cause the yield data in a grower's APH to lag or underestimate the farm's current yield potential. These continual improvements should be captured in today's crop insurance products.

Oppose Arbitrary Means Testing or Limitations

In the past, there have been proposals that would impose arbitrary means tests to crop insurance or limit the amount of premium discount a producer can receive. I strongly urge you to oppose any attempt to implement any proposal along these lines. While we believe these limits should not apply to any farm program benefits, crop insurance is categorically different. Limiting access to these products would cause some producers to completely exit the crop insurance market. Their exodus from the program would in turn impact all remaining producers who purchase crop insurance by altering the risk pool and potentially increasing the premium rates across the board.

Conclusion

In closing, the NCC is grateful for the role Congress and RMA have played in making crop insurance a functioning and affordable option for the vast majority of U.S. cotton producers. When disasters have arisen or areas for improvement in crop insurance have surfaced, the Agriculture Committees as well as USDA have responded to ensure crop insurance continues to be a critical part of the portfolio for cotton growers for years to come.

We are grateful for the opportunity to testify, and we look forward to working with the Committee to address the necessary improvements discussed in today's hearing. I will be happy to answer any your questions.

The CHAIR. Thank you, Mr. Cromley.

At this time, Members will be recognized for questions in order of seniority, alternating between the Majority and the Minority Members. You will each be recognized for 5 minutes in order to allow us to get through as many questions as possible. As a reminder, please keep your microphones muted whether you are with us virtually or here so we can minimize any background noise and make sure that we pay attention to our business at hand.

I am going to start by recognizing myself for 5 minutes with questions.

Mr. Offerdahl, I will start with you. As a developer who has gathered data, put together product proposals, and gone through the submission process for new risk management options, can you please talk about how the Federal Crop Insurance Corporation reviews proposed products and the sort of considerations they have to make in evaluating and approving those proposals? And just as a follow-up to that, if I can make this a two-parter—you want me to wait till the second part?

Mr. OFFERDAHL. No, ma'am. I will try and—

The CHAIR. Okay, second part, can you also talk about the confidentiality requirements that are in place as products are reviewed and whether you think confidentiality is required?

Mr. OFFERDAHL. Okay. So thank you very much for your question. First, to talk about the data that is required in the submission process, generally, the best ideas for new crop insurance products come from producers themselves. They are the ones who best understand the risks that they are facing and the limitations of the current products. So typically, a new product development process starts with a phone call from a producer who has a specific problem they are looking to solve. From there, the first task is to try to determine if crop insurance is the best way to address this problem. And in a lot of situations, it is not. There are other things that producers can do to manage their risk or to address the problem. But occasionally, it turns out that crop insurance is the best way to address that problem. From there, there is a wealth of data available, whether it be historical data captured by the National Agricultural Statistics Service or ERS or data captured by the Risk Management Agency itself. But in a lot of sources, it is also university data or data from other places. These have to be pulled together and then used to develop a full submission that meets the standard of actuarial soundness. And this is a critical concept within crop insurance because there are private companies that are sharing risk with the Federal Government. It is very important that we can quantify the risk that these policies impose.

From there, it becomes a process of writing insurance contracts and assuring that the purpose of the policy is met with the language that is put into it. The 508(h) approval process involves both presenting to the Risk Management Agency staff, and within the Federal bureaucracy, you will not find a more qualified, talented group of people. And they run us through the rigor of all of the sort of questions and concerns that might come up before we even take the first step in the process.

From there, it is submitted to the Federal Crop Insurance Corporation, a board of experts and farmers, who will consider the merits of the program. If they like what they see, it goes out to expert reviewers. These are usually actuaries or academics who have no incentive to see these programs approved. And they will provide an awful lot of comments and questions and concerns. And not until those are all fully addressed can we go back to FCIC and ask for approval in those programs.

So the process has multiple steps. We talk about it as a process of checks and checks and checks and balances because it is critically important that we not put something out there that changes

people's incentives. Instead, we are looking to improve the program.

So to your second part of your question where you were talking about confidentiality, the program makes provision for confidentiality, and the developers themselves are the ones who choose whether or not that confidentiality is to be maintained. Historically, and clearly, RMA staff and FCIC, everyone within that process maintain strict confidentiality themselves. They absolutely respect the submitter's right to keep a product confidential or not. And that is because a lot of the data and pieces of the program that go in are confidential themselves, and some of this is proprietary information from private companies, and they don't want any individual farmer's information to be distributed.

But when it comes down to the basic concept of the program and what it is looking to achieve, there is a lot of runway required. These companies, these agents, the producers themselves need to understand what the program is, what is coming down the pipe, and what they can expect for future risk management needs. The principal benefit of crop insurance against disaster or other programs is predictability, understanding what sort of coverage can be available to you and how it will operate. And if a program is in development and it is rushed through or if it is released to insurance providers or companies too quickly, unfortunately, they won't be ready to do a good job of servicing it. So my belief is that confidentiality has been taken too seriously by most developers and that a more inclusive development process benefits everyone.

The CHAIR. All right, thank you, Mr. Offerdahl. You know what, I have only got 42 seconds left, and it would require more time than that.

Mr. OFFERDAHL. Apologies. I am sorry.

The CHAIR. No, that is okay. It was very thorough, though. I will give you credit for that.

I will now yield to our Ranking Member, Mr. Austin Scott of Georgia.

Mr. AUSTIN SCOTT of Georgia. Thank you, Madam Chair.

And after Hurricane Michael, I was one of those that met with the different people in the Administration, and the concept of pre-funding disaster relief was actually one of the things that was part of that discussion. And it came because there was a lot of damage in areas where there really wasn't a crop insurance program. Pecan orchards, for example, there was not a program that was affordable. And when we met with the Administration, we were told that the existing Tree Assistance Program, which would provide about \$15 per tree, was adequate, and it simply isn't.

And so when we talk about pre-funding a disaster program, it is not intended to replace crop insurance. There certainly are traditional commodities where crop insurance works quite well, but there are a lot of other groups where crop insurance doesn't work at all. And we saw those significant losses from Hurricane Michael, and had we not had disaster relief, I think a lot of our people wouldn't be farming today.

So it is intended to work in conjunction with the crop insurance system, not *in lieu of* it. And for traditional commodities there has always been the discussion that you would not be eligible for those

funds if you did not purchase crop insurance up front. But we all know there are simply crops out there that there are no insurance programs that work for.

With that said, Ms. Fowler, in your testimony you talked about the adverse impact the cap on administrative and operating expenses is having on agents, particularly on those that primarily sell and serve specialty crop policies. If left unaddressed, what do you believe the impact will be on growers for these agents who write the policies?

Ms. FOWLER. Thank you for your question, Mr. Scott. The specialty crop area, as actually what I have testified earlier, we have now 130 crops. And that is where the crop coverage has really been enhanced is in that specialty crop area. They are very unique. They are very tailored to what the options are in that area. And actually, with the inflation rate, this problem started quite some time ago, and we have moved along. But currently, we need to have some extra inputs in that area just simply so that we can have enough staff, enough agents trained, specialized folks in that area to come across and address these specialty crop needs.

Mr. AUSTIN SCOTT of Georgia. Well, one of my concerns is in the development of new products. If you are developing new products, you probably have some additional expenses in administration as those new products are coming to market, with uncertainty in what it is going to cost to operate.

Mr. Cromley, in your testimony, you mentioned a very staggering statistic. In 2021, 10.8 million acres of upland cotton were protected by some form of crop insurance. This represents more than 97 percent of all upland acres. How did the National Cotton Council work with USDA's Risk Management Agency to increase crop insurance participation?

Mr. CROMLEY. [inaudible] question, Mr. Scott. I think probably the most—my first impression is the high risk in growing a cotton crop. I mean, it is obvious that all growers just about have to have crop insurance in some form to survive in today's environment. So that will be my first comment. Second, National Cotton Council and cotton farmers have for years worked with the organizations that have been mentioned here before. The new products that come online are targeted—

Mr. AUSTIN SCOTT of Georgia. I think we are having a rural broadband issue there. The point is that 97 percent of upland cotton is now insured, and it has not been that high in the past. And I do think that the association, the agents have done a good job of having the growers understand the value of the insurance. I do hope there is a way that, looking forward after 2018, what he testified was absolutely accurate. The yields that were above the ground were significantly higher than the 10 year average had been. And I hope that, as we push forward, we are able to find a way to give producers the ability to step up if you will the coverage to actually reflect the pre-harvest value of it.

Madam Chair, my time is out. We have obviously got some rural broadband to work on in southeast Georgia. And with that, I yield back.

The CHAIR. And a lot of other places as well. Thank you, Mr. Scott.

I will now recognize the gentleman from California, Mr. Carbajal, for 5 minutes.

Mr. CARBAJAL. Thank you, Madam Chair, and thank you to all the witnesses for joining us today.

California has more agriculture production than any other state. A significant amount of this production comes from my district, where some of the most delicious specialty crops are grown, including strawberries, avocados, blackberries, and more.

Whole-Farm Revenue Protection is the only insurance product available nationwide, which ensures the entire revenue of a farm's operation, including specialty crops and livestock. With its unique diversification discount, it is in theory a forward-thinking product for diverse producers and those looking to diversify. However, in practice, the program is inhibited by burdensome paperwork requirements, unclear costs, and disillusionment from both farmers and insurance agents.

Ms. Fowler, is there a role for our Congress to help streamline program access? And how can insurance providers do more to educate agents and the market about this product?

Ms. FOWLER. Thank you so much for your question. And yes, it is an extremely complicated program. And yes, it is very hard to be straightforward with that program. I think we can actually come in and make improvements. I think it is a very, very valuable program for your specialty crop people there in California. But yes, it does need more improvement, and I think we could all work together with RMA. And I know they have overcome several challenges and changing some limits for that product also.

Mr. CARBAJAL. Thank you, Ms. Fowler, and sorry, I might have been inadvertently said mister initially, so I apologize for that.

Ms. FOWLER. It is okay.

Mr. CARBAJAL. It is an indisputable fact that climate change has caused severe weather events across our nation. California knows this all too well with prolonged drought and increasing severe wildfires year round for that matter. Climate change is making it more difficult for farmers to reliably grow our nation's food supply. Thankfully, growers are resilient and not easily discouraged. But the Federal Government must make sure farmers are insured for tough times.

Mr. Haag, where do you see the program going over the next 5 to 10 years, especially given the impact climate change is having on farmers? Are there specific ag sectors that we need to focus on to encourage more participation within crop insurance?

Mr. HAAG. Thank you for that question, Senator. At NCGA, it is always important that we cover our goals that we would like to have for corn, plus to make sure our other crops, no matter if we grow in our state or your State of California that are protected because of how important it is for those individual farmers to have that safety net or the tool in their toolbox. We just got to continue to push forward and making sure that the other politicians that don't appreciate crop insurance, that we can convince them how important it is for the farmers because with our inputs right now, we have to have that safety net or that tool in order to continue farming in the next years. So I would say it is just as a matter of

the commodities we are still working together and pushing forward for a strong crop insurance program.

Mr. CARBAJAL. Thank you, Mr. Haag. And you demoted me by calling me a Senator.

Thank you. Madam Chair, I yield back.

The CHAIR. All right. Thank you very much, Mr. Carbajal.

At this time, I will yield to Mr. Allen from Georgia for 5 minutes.

Mr. ALLEN. Thank you, Madam Chair, and good afternoon, everyone and panelists. And thank you for giving us your time today.

The issue we are discussing obviously is crop insurance, and it has never been more timely. Commodity prices overall are high right now, but for many farmers, the cost of doing business has increased at a faster rate. According to a study conducted in April by Dr. Don Shurley, Professor Emeritus of Cotton Economics at the University of Georgia, while cotton prices are 20 percent higher than 1 year ago, production costs, both variable and fixed, have risen over 30 percent during the same time span. Dr. Shurley has also documented an inflation rate for the price of items used in farming at a significantly higher rate of inflation than the national average.

As we write the next farm bill, we must analyze this problem our farmers have faced in recent years. It reminds me of the early 1980s. Their profit margins are disappearing, the issue is not sustainable, and we must reckon with it.

Ms. Fowler, can you speak to what Congress can do to ensure we are not undermining the current crop insurance program? And is there any way Congress can help promote participation?

Ms. FOWLER. Thank you for your question. Yes, I think so. There are some additional products that we can take a look at, but yes, we need to have greater levels of coverage. We need to be able to participate at a higher level of coverage that is affordable, especially when the margins are so skinny out there at this point in time. And I think if we can look at that and maybe increase the baseline to the budget and be creative in the new farm bill, that would be very helpful to producers for higher levels of coverage.

Mr. ALLEN. Now, for our farmers to be able to borrow the funds necessary for production ag, obviously, you have to have crop insurance. Do you require crop insurance?

Ms. FOWLER. Some lenders do require crop insurance, but actually lenders like crop insurance. I mean, they can see what the crops—they are there with cash flow rather than an asset lending base that we had back in the 1980s.

Mr. ALLEN. Okay. Do we have Mr. Crowley on? Lee, we got to fix our broadband down in rural Georgia, don't we, my friend?

Mr. CROMLEY. Absolutely.

Mr. ALLEN. Mr. Crowley, in your testimony you mentioned the need for higher levels of insurance coverage at a more affordable rate. What ideas have been discussed for a cost efficient coverage program for the benefit of all of our farmers? Have we been in discussions about that through Farm Bureau and the other ag agencies to try to rectify this problem?

Mr. CROMLEY. There have been ongoing discussions about this throughout all the industry, and I think the current situation just underscores the fact that with all the increases that you referred

to, increases in all costs, our fertilizer costs have doubled, seed costs have gone through the roof, fuel and everything that fuel touches. So our margins are just unbelievably small right now.

And the problem that concerns me with crop insurance is with this tight margin, something is going to have to give in order for this to work. [inaudible].

Mr. ALLEN. I have about a minute and 20 seconds left, Mr. Cromley, you attended a farmer roundtable in Statesboro, Georgia, recently, and at that roundtable, I saw a lot of fear in the room not only with what you are having to deal with as far as inflation today but what it is going to look like tomorrow. In other words, as I understood it, it was hard to even tie down a price on fertilizer. And I am hearing the same thing, by the way, in the construction industry, which I was a part of, and other industries. So where are we right now? Are you continuing to see the price of the things you need—and of course, there is some regulatory resistance against the products you use to harvest and to get the yields required. What are you seeing right now?

Mr. CROMLEY. I think you are exactly right in your comments. I think *uncertainty* and *volatility* are probably words that would describe the countryside right now, at least where I am. There is just so much uncertainty about everything, and that goes back to crop insurance a little bit from the standpoint that crop insurance is one thing that can give us some stability, some predictability. And so that is why it is really even more important now than ever. I think some premium discounts always would be something we could look at and other things to make it a little more affordable. As I was saying earlier, I think crop insurance might be one of those things that some people are forced to not participate in as margins get tighter, and I hope that is not the case. But yes, I think it is reaching that point, that level of concern.

Mr. ALLEN. Okay. Well, listen, thank you so much. Thanks to all of our witnesses. And, Madam Chair, I yield back.

The CHAIR. Thank you, Mr. Allen.

I now recognize Mr. Lawson from the State of Florida, who is with us, virtually for 5 minutes.

Mr. LAWSON. Thank you very much, Madam Chair, and to you and Ranking Member Scott for holding this meeting. And I would like [inaudible] all our participants to our meeting today.

Federal crop insurance is an incredibly successful public-private partnership that stands as the primary safety net for U.S. producers. However, among producers and crop insurance companies, we have heard how complicated and time-consuming it can be to insure specialty crops. And we have a lot of specialty crops in Florida with many of these consumers being small and just historically underserved producers. In your testimony, Ms. Fowler, you mentioned that cuts in administrative operation, pro-policy pay method unfairly impacts specialty crop producers. In addition to increasing the A&O to 2020 level, what else can Congress do to address this gap and incentivize crop insurance companies to work with specialty producers?

Ms. FOWLER. I think making those adjustments in the specialty crop area is a start and a great place to be. I would encourage to make it easier for participation with those agents to get staffed up

not only through technology but skilled staff members that can reach out to more people. And also, the specialty crop area is so unique and so driven toward that farmer's own individual operation, and if we can continue to tweak these products and make them more straightforward so they are understandable and you know exactly where you are going to be, I think there is a lot of opportunity to continue to grow that area.

With all due respect, once again, the specialty crop area is an area that has increased tremendously, and there is a lot of work to make sure that you individualize that coverage. So I would look forward to the opportunity to help in that area.

Mr. LAWSON. Okay. Thank you very much. And, here in Florida we always plan for hurricanes. It is hurricane season. Mr. Cromley, you mentioned that how Hurricane Insurance Protection-Wind Index does not provide coverage for losses due to tropical storms even when devastating winds and rain caused damage. Do you believe that tropical storm damage should be included in the protection of a wind index? Is there any different program that you may feel better that needs to cover these losses?

Mr. CROMLEY. Thank you, sir. I think the hurricane product is a good product. I was glad to see it. It is something that, like I say, I am 60 miles from the coast, so it was critical for me to consider this product.

We had an example—I can give you an example in Texas where a grower was a mile or 2 outside the hurricane zone and had tremendous loss because he was that close, but yet he didn't qualify. He had tremendous wind, tremendous rain, tremendous damage, but because it was not hurricane-level damage, he was out. And I don't think that was the intent of the program. I think the program could be changed just a little bit to where damage would be not necessarily wind but actual damage could be measured and determine the level of loss. So I would hope that is something that you would consider. Hurricane winds are devastating and terrible, but there are tropical storms and things that are just as devastating at times.

Mr. LAWSON. Okay. Does anyone else want to comment on that? What about you, Ms. Fowler?

Ms. FOWLER. Yes, the hurricane coverage has been a great product that has come into play. I don't write any of that currently, but I have a lot of agent friends that have written a lot of hurricane insurance coverage. And the producers like that, and it has been good coverage, especially for that certain peril.

Mr. LAWSON. All right. Madam Chair, I yield back.

The CHAIR. All right. Thank you very much, Mr. Lawson.

At this point, I will yield to the gentlewoman from Illinois, Mrs. Miller, for 5 minutes.

Mrs. MILLER. Thank you, Madam Chair and Ranking Member Scott. This is an important topic, and I assure everyone that our number-one priority is protecting crop insurance as our number-one risk management tool.

So I have a question any of the witnesses can answer. Can any of the witnesses explain the dangers of using crop insurance rates as a tool to change farmers' behaviors, likely in the name of climate

change, or incentivize certain practices that have yet unproven yield benefits?

Mr. HAAG. Thank you for that question, Representative. At NCGA that—you mentioned how strong that we want to make sure crop insurance stays right where it is at. I had a tough time understanding a couple of your little points there that you had made because of my older age here. I guess my hearing is not as great as it was once, but could you repeat just the one with crop insurance and maybe some fraud that you were talking about?

Mrs. MILLER. So I am concerned about the danger of using crop insurance rates as a tool to change farmers' behaviors, such as the climate change, and incentivizing certain practices that as of yet have unproven yield benefits.

Mr. HAAG. Okay, right. As of right now, I am not able to talk a lot about that, but I can say as far as NCGA is concerned we want to make sure that we are strong this way, that we are not making farmers change—if there is going to be problems with the new laws with climate change or whatever, that is going to have to be weighed just down the road, I mean, my opinion to see what happens. We continue to look into that. But as of right now, we have not talked an awful lot about changes that way from crop insurance, the way we have it now to where it might be down the road. Maybe I am not helping you, but that is where we see it going right now, that we are not looking that far down the road.

Ms. FOWLER. Thank you, and thank you for the question. Actually, I think I addressed that a bit earlier as far as crop insurance is concerned. Crop insurance was set out to protect the profitability of the farmer. And I think at this point in time that is where we need to stay focused. You don't want to get too strung out on too many different things and then you just water down the crop insurance product. And we need to stick true with the practices that we currently have, and we need to cover the profitability. We have reinsurance contracts out there with real reinsurance companies, and I think they are going to want to understand how to mitigate that risk.

Mrs. MILLER. Thank you. And then, Ms. Fowler, as an experienced crop insurance agent that has seen the program evolve over time, can you speak to the growth of the program and how it has provided you the opportunity to start a business and create job opportunities in a town like Memphis, Tennessee?

Ms. FOWLER. Okay. Thank you once again for the question. But it is Memphis, Texas, with a population of about 2,500, so rural America at its best. But yes, it has been incredible to see this program evolve. It has been incredible to watch producers who have had this crop insurance and have had stability within their family operations. I am now insuring down to the second and third generation with those producers. So it has been great. I have 19 employees in three offices, and we are engaged. We do everything we can. Sometimes it is pretty skinny out there with all the different things that we want to deal with and that we help producers when they come in. But also in turn, we get involved in the community. We get involved with community pieces whether it be with FFA projects, whatever the community might need. And so it is great to see that and have that opportunity.

Mrs. MILLER. That is great. Thank you. And quickly, this is for any of the witnesses. What are the potential impacts if the U.S. were to completely forego the private-sector delivery system, as we have seen proposed by some and revert to a government-run insurance program through FSA? What would you say to someone who champions this type of proposal?

Ms. FOWLER. Once again, I will be glad to step up. We work closely with FSA. FSA has their programs, we have our programs, and quite frankly, we need each other out there and we need to be able to work together. But once again, that program was delivered years and years without a lot of participation, and I think crop insurance has its own absolute track record, the success record that we have today. And one thing is that we can deliver timely payments in order for a producer to have cash flow and get back to the bank and start and go again.

Mrs. MILLER. Thank you so much.

The CHAIR. Thank you, Mrs. Miller.

I will now yield to Mr. Mann from the State of Kansas for 5 minutes.

Mr. MANN. Great. Thank you, Chair Bustos, for having this hearing, you and Ranking Member Scott, and to all our panelists. And we are 14½ months out from this current farm bill expiring. Crop insurance will be my highest priority and I think should be the highest priority so far as production agriculture goes for this Committee.

Kansas farmers have told me repeatedly that as we look at crop insurance in the next farm bill, let's use a scalpel and not a sledgehammer. Let's make some tweaks, let's work to improve it, but let's acknowledge that what we have is a good program and it is a successful public-private partnership that I would argue to my last breath to anyone is good for producers. It is good for rural communities. It is also good for our consumers to have a constant food supply all over this country.

I do also think we need to acknowledge that we are in an era of record high input prices, and the safety net that currently exists, was designed to withstand a fall from, say, 10'. But when you double, quadruple input prices and that same producer is falling from 40', I think we need to really discuss is the safety net the appropriate height off the ground so to speak moving into this farm bill?

I have a handful of questions. I will start with you, Ms. Fowler, and thank you for being here. In my view, one of the key features of crop insurance is the ability for private entities to craft policies to address risks or cover new commodities. The process which you refer to in your testimony, the 508(h) process, is well-supervised and allows the Federal Crop Insurance Corporation Board to control new product approvals without OMB interjection. Can you explain why it is crucial that the FCIC has autonomy over Federal crop insurance?

Ms. FOWLER. Well, the FCIC actually is the background to the crop insurance. That is who actually writes the policies, they write the procedures for the background for the insurance there. But actually, I believe you were visiting about falling the 40'. We really need some additional participation at higher levels, and the extra products that have come from the 508(h) process, whether it be the

SCO, STAX, ECO, all of those products are great products, and they are just beginning to evolve. We have just now started with those products, and I think if we have some additional price support and participation with those, those products will really help us. They are already set in place and can make a timely payment.

Mr. MANN. Great. Well, one last question for you, Ms. Fowler. As you know, up until 2015, the Risk Management Agency adjusted the overall A&O cap annually for inflation, and it has remained stagnant since. Can you discuss what impact that has had on crop insurance agencies across the country?

Ms. FOWLER. Yes, once again, thank you for that question. Yes, we do everything we need to do. We go out, we help farmers, but yet, I am conscious of what those expenses are. And I have a highly skilled staff. And you just don't say walk away for 6 months, and we will see you back. I mean, it takes a year to train any type of staff or team member within my agency. So yes, we try to do more with less. We use technology, we try to be very efficient, we try to be thorough to start with. But yes, I am very conscious of that. And, those folks, we live in rural America, they have home payments, house payments, they got kids going to school, so it is important that I try to stay static and do the best job I can at managing expenses, especially in this year where we are looking at a lot of losses.

Mr. MANN. Yes, and I think we have to acknowledge that the program has to work for the producer, but it also has to work for the insurance agents that are delivering that product and are boots on the ground, so thank you for that.

Last question that is for you, Mr. Haag. As you know, Federal crop insurance policies can be improved with additional product development and innovation such as the trend yield adjustment, which has been very beneficial for corn producers. What are some specific steps that National Corn Growers Association has taken to ensure risk management tools are evolving to continue to meet the needs of producers today and into the future?

Mr. HAAG. Thank you for that question there, Representative. It is important that the core quality that we use right now, the corn maturity is everything, that we are raising that much more corn so that adjustments are very important, going up to make sure that you are covered with the rate, with the other percentage you want to use. So that trend yield is very important because if we have 4 good years in a row, you have 4 good years of a base there, a fifth year, and all of a sudden you have a poor year coming in there, that is going to help you when you have that poor year going—and up there—so you are going to get paid back on respectable money. Yes, it does come down like it has, but in a year or 2, you are going to get back to normal where you don't have that—hope you don't have that drought for 2 or 3 years in a row to do that. So that trend yield, it is important, and that is one of the bigger things I think has had a big plus with corn growers to make sure that they have—to taking crop insurance on, that it is more beneficial for them in the end.

Mr. MANN. Great. Great. Thank you. I see I am past my time. Thank you.

The CHAIR. All right. Thank you very much, Mr. Mann.

Ranking Member Thompson, are you settled in enough for me to yield to you for a second? Sorry to throw this at you so quickly.

Mr. THOMPSON. Absolutely.

The CHAIR. All right.

Mr. THOMPSON. Thank you.

The CHAIR. The Ranking Member of our full Committee, I will now yield to you for 5 minutes.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Thank you very much. Thanks for your patience, Madam Chair. As you know, I like to be here at the beginning, not at the end of these, so my apologies to our witnesses. But thank you so much for testifying and for your written testimony.

Madam Chair, Ranking Member Scott, thank you both for calling this important hearing, and I apologize to you and the witnesses for my tardiness, but I wasn't able to make the 9:30 start time on late notice, so thank you for accommodating me.

Since becoming a Republican leader of the House Agriculture Committee, I have embarked on what I am calling a perpetual barnstorming tour that has taken me to more than 40 states to hear directly from the producers. On these journeys, the most commonly mentioned piece of Federal policy is our crop insurance program. I have heard firsthand from numerous farmers how crop insurance saved them from bankruptcy following a disaster.

But its purpose goes well beyond helping producers in the wake of a loss. Crop insurance provides a base level of reliable risk management that helps keep the economic engine of rural America running in good years and, quite frankly, in bad. Without crop insurance, lenders would not be able to provide the levels of credit to the farmers necessary to operate a farm in today's high-cost environment, and producers would not have the ability to make investments in their operation to take advantage of new technologies and practices. I have even been told that crop insurance is often what stands between us and the 1980-style farm financial crisis, which was so severe it even wreaked havoc on the economies of some of our largest cities because crop insurance provides collateral to lenders and obviates the need for asset-based lending.

The key selling point for me on crop insurance is the framework of the public-private partnership between the government and approved financial providers, agents, and farmers. This partnership allows USDA to set fair prices for coverage, companies to compete on service, and farmers to have skin in the game. The result is a program that is fair to the taxpayer, reliable for farmers, and provides job opportunities in rural communities for agents and loss adjusters.

The numbers tell the success story well. Since the Agricultural Risk Protection Act (Pub. L. 106-224) was passed in the year 2000, insured acreage has more than doubled and the value of crops insured has increased almost six-fold from \$35 billion to nearly \$200 billion. Now I am sure we will—we have heard in discussion today about the *ad hoc* assistance that has been provided outside of crop insurance, and I have been supportive of those efforts in the immediate term to give additional help to farmers suffering devastating

losses. But I do not believe this will remain a viable option for an extended period of time, and we must proactively look at how crop insurance can be improved to cover these losses.

Today's hearing provided a valuable opportunity to solicit the firsthand experiences of farmers on the ground dealing with these losses and the perspectives from those within the industry that can help guide this Committee during the development of the 2023 Farm Bill.

And finally, I want to touch on climate and the push by some to hijack crop insurance program to carry out a half-baked environmental experiment. This must stop before irreparable harm is done to a farmer's most critical risk management tool. Let me be clear. This isn't an ideological concern. I support efforts to expand and improve our conservation work. But crop insurance already provides clear incentives to be good stewards of the land. The more a farmer can increase their yields or mitigate losses, the better their coverage options will be.

And we don't need to cherry-pick certain practices that might only work in specific regions of the country and use crop insurance to try and force all farmers into adopting the practice. We already provide nearly \$6 billion per year in locally led incentive-based conservation programs through title II of the farm bill. That is the appropriate place to have these conversations, not in title XI crop insurance. Now, I am confident if the data supports it and agronomic conditions allow it, farmers will naturally gravitate towards adoption of the practices best for their farms. We don't need to use crop insurance as a carrot, or worse, as a stick to force their hand.

Madam Chair, thank you again for convening this hearing, and thank you to our five witnesses for agreeing to be here this morning.

And I may have come in late, but I got a chance to go through your written testimonies last night, and I do have a few questions. First, let's start with Mr. Haney and Ms. Fowler. Every farm bill cycle we have to battle critics who attempt to impose limitations or means testing on crop insurance. And one of these organizations, the National Sustainable Ag Coalition, just released a report examining the impact of a variety of these proposals that show that they would cut premium assistance by up to 30 percent.

Mr. Haney or Ms. Fowler, could you explain the impact proposals such as these would have on the viability of the program overall? In particular, what impact would this have on specialty crop producers, which are typically ensuring high-value crops?

Ms. FOWLER. Thank you for that—go ahead.

Mr. HANEY. No, go ahead, Kathy, please, by all means.

Ms. FOWLER. Okay. Thank you, Congressman Thompson, for that. I can give it to you pretty short and straight, absolute non-starter. And simply put is that you start taking people out of the risk pool, it takes all of us to keep the loss ratio under the statutory 1.0 percent. And we have been able to manage, and we have been able to do that, but we need all people in the pool, and we need to make sure that everybody's engaged, because otherwise, this program doesn't work.

Mr. THOMPSON. Ms. Fowler, thank you.

Mr. Haney, go ahead.

Mr. HANEY. Thank you, Congressman. And I couldn't say it any better than Ms. Fowler has. At the end of the day from an actuarial perspective, if you start removing those larger bulk premiums at the top end, it will have a dramatic effect on the smaller producers and the smaller premiums. They will have to carry if you will the load of the loss ratios. And Ms. Fowler is 100 percent correct. It will have a dynamic effect if that is done.

Mr. THOMPSON. Very good. I like how she summed it up as a nonstarter.

Mr. Offerdahl, as you are aware, I have expressed an interest in exploring options for a safety net based on margin to address the squeeze producers find themselves in with sky-high input costs. The success of the Dairy Margin Coverage Program is what spurred my interest in this topic. Can you briefly explain how the margin protection insurance policy you developed works? And do you foresee opportunities to expand the availability of that policy in the future?

Mr. OFFERDAHL. Yes, and respectfully from my first answer very briefly, the Margin Protection Program is designed to protect people from decreases in commodity prices, decreases in yield, or increase in input costs. A program has been available for a handful of crops since 2016, and the crops for which it is available are the ones where we had the best data. It is a 508(h) experiment that has been highly successful, but at this point, participation is only about 6,000 policies a year. It is a bit more expensive because it enjoys a lower subsidy rate than other crop insurance programs as an experiment, but there are tremendous opportunities to expand it nationwide rather than just core Midwest states and a handful of crops.

Mr. THOMPSON. Very good. Well, thank you for that. Mr. Haag and Mr. Cromley, could you speak to the relationship you have with your crop insurance agent, and how has the service provided by your agent differed from that of the Farm Service Agency, particularly throughout the pandemic? Mr. Haag, why don't you go first?

Mr. HAAG. I think it is much easier talking with our crop insurance agents. They have a better understanding of what happens out on the farm. The FSA are good people that work in the offices, but they don't get a chance to get out to the farms to see how your operation is running and just get the little technical things about how things work. So working through an agent, in my opinion—and that is what we do—it is much easier. It is much better. He understands our farm program and our farms and we get the best advice from him.

Mr. THOMPSON. Very good. Thank you.

Mr. Cromley, any comments?

Mr. CROMLEY. I would echo that in the sense that our agent is involved in agriculture. He farms some. He is aware of the issues. He knows the challenges. FSA people are great, they are great, but they are not the same level of participation, not the same level of understanding of the challenges we face. So that public-private relationship is just absolutely critical to all of us I believe.

Mr. THOMPSON. Well, once again, I want to thank you for that Mr. Cromley. And, once again, thank you to all of our witnesses,

and thank you to our Chair and Ranking Member for this Subcommittee hearing, much appreciated. And I yield back.

The CHAIR. Thank you, Mr. Thompson. And thank you for being so good at being part of our Subcommittee hearings. We appreciate your attendance and your participation in all this.

I want to thank our witnesses, the three who are here in person, the two who were with us virtually. We have Mr. Haney, Ms. Fowler, Mr. Offerdahl, Mr. Haag, and Mr. Cromley, and we do appreciate it. Thank you also to everybody for accommodating the time change. The First Lady of Ukraine is addressing the House and the Senate at 11 o'clock, so we will be heading over there. And obviously, Ukraine is very, very important from an agricultural perspective as well, so we appreciate you accommodating that.

Before we officially close out, I am going to yield to our Ranking Member, Mr. Scott, for any closing comments he may have.

Mr. AUSTIN SCOTT of Georgia. Thank you, Madam Chair.

You mentioned Ukraine. I do want to bring up the fact that the Russians are actually sending rockets into the wheat fields there and setting them on fire. I think that the world probably for the first time since the 1940s may watch as a ruthless individual in Vladimir Putin uses food or lack thereof as a weapon of war, which reiterates the fact that we in this country need to make sure that we are taking care of our producers.

So while most Americans think about food as a jar of peanut butter or a loaf of bread, those of us on this Committee and in this room realize that it is the peanut farmer and the wheat farmer that actually grows the crop that allows us to go into the grocery store and buy the food that we need.

Ninety percent of our food supply, I will say that, again, 90 percent of our food supply in this country comes from 12 percent of the farmers. The proposals that come before this Committee by groups on the far right and the far left that would effectively disincentivize those farm families to purchase crop insurance are detrimental to the whole ag industry and the food supply in this country. If you take the best risk out of the system—and our farmers, our large farmers are the best risk that we have, they are buying crop insurance—then you are going to raise the premium on everybody else and make it unaffordable.

I hope as we go forward, I look forward to writing the next farm bill and keeping the focus on the food supply of the United States. We do not need to be dependent on foreign sources of food.

With that, Madam Chair, I yield.

The CHAIR. Thank you to our Ranking Member. And again, thank you to all of our witnesses.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions that were posed by a Member.

This hearing of the Subcommittee on General Farm Commodities and Risk Management is adjourned.

[Whereupon, at 10:55 a.m., the Subcommittee was adjourned.]

**A 2022 REVIEW OF THE FARM BILL
(BROADBAND)**

THURSDAY, SEPTEMBER 15, 2022

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 10:03 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. David Scott of Georgia [Chairman of the Committee] presiding.

Members present: David Scott of Georgia, Adams, Spanberger, Hayes, Brown, Pingree, Kuster, Bustos, Plaskett, O'Halleran, Carbajal, Lawson, Craig, Harder, Axne, Schrier, Panetta, Bishop, Davids, Thompson, Hartzler, LaMalfa, Allen, Rouzer, Bacon, Johnson, Baird, Jacobs, Balderson, Cloud, Mann, Feenstra, Cammack, Fischbach, Flores, and Finstad.

Staff present: DeShawn Blanding, Lyron Blum-Evitts, Emily German, Josh Lobert, Ashley Smith, Michael Stein, Paul Balzano, Caleb Crosswhite, Josh Maxwell, Ricki Schroeder, and Dana Sandman.

**OPENING STATEMENT OF HON. DAVID SCOTT, A
REPRESENTATIVE IN CONGRESS FROM GEORGIA**

The CHAIRMAN. The Committee, of course, now is in order. And I want to welcome and thank everyone for joining us today at our hearing, which is entitled, *A 2022 Review of the Farm Bill: Broadband*. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open for questions.

So, today, we are here to discuss the *collaborative* efforts. And I want to emphasize that word because we will not be successful if all of our combined Federal agencies, our state agencies are all not working together to make sure that the \$65 billion that we have appropriated is sufficiently and effectively distributed and working. And for that effort to be successful, USDA must be able to work with the National Telecommunications and Information Administration, NTIA; and the Federal Communications Commission, FCC, in awarding this \$65 billion in broadband funding and examine the role that these agencies play in achieving our goal of 100 percent full, nationwide connectivity for our rural communities. And rural broadband is so critical for our rural areas, not only in terms of the distribution of the funding, but to finally establish rural broadband it will be a huge economic benefit to our rural communities.

The COVID-19 pandemic highlighted the necessity of reliable broadband as workplaces and businesses migrated online and healthcare facilities and schools have transitioned to telehealth and distance learning. In response, Congress made substantial investments in broadband funding to existing and newly established Federal broadband programs dispersed across multiple Federal entities. That is why I say the key word is *collaborative*, working together. This is the key for success, to finally bring rural broadband to our rural communities.

And of those investments, the bipartisan Infrastructure Investment and Jobs Act (Pub. L. 117-58) made the largest Federal broadband investment in our nation's history, totaling \$65 billion for broadband programs at FCC, NTIA, and USDA, the primary agencies that administer existing broadband deployment grant programs. And as we move forward now toward our 2023 Farm Bill, we must understand how these agencies plan to communicate and collaborate to effectively reach our shared goal of 100 percent nationwide coverage. And this is why we established procedures for interagency coordination among USDA, NTIA, and FCC in the 2018 Farm Bill, and we must continue to engage with each other to ensure effective coordination, evaluate the agencies responding, and address any problems, any barriers that may exist.

Rural broadband will continue to be a major focus of this Committee. We take great pride in being able to finally, as a Committee, make sure that our rural communities have the necessary funding. We previously held a Committee hearing to examine any barriers to our broadband connectivity and solutions and opportunities to overcome any impediments.

Ranking Member Thompson, my good friend, and I also introduced the Broadband Internet Connection for Rural America Act (H.R. 4374), which would make crucial and significant investments in the USDA broadband program to expand broadband in our rural communities. And always, I would like to thank my good friend, the Ranking Member, for his bipartisan cooperation. We did it together, Ranking Member Thompson, and your willingness to work with me on this issue, and I appreciate that, Ranking Member. Thank you.

We are always thankful to be joined by Under Secretary Torres Small, my good friend. We are so delighted to have her. And she is playing a critical role in making sure that we have this coordination, which is the key to our success. And we are grateful to hear from our second panel as well of outstanding witnesses. Your combined experiences and interactions with these agencies will help us get a clearer scope of how broadband deployment is working on the ground. And we look forward to your testimonies. Thank you.

[The prepared statement of Mr. David Scott follows:]

PREPARED STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

Good morning and thank you for joining us. Today we are here to discuss the collaborative efforts of the USDA, the National Telecommunications and Information Administration (NTIA), and the Federal Communications Commission (FCC) in awarding broadband funding and examine the role these agencies play in achieving our goal of 100% nationwide connectivity.

Broadband is a critical tool for rural development, but inaccessibility to high-speed internet remains a major barrier for rural communities. The COVID-19 pandemic highlighted the necessity of reliable broadband as workplaces and businesses migrated online, and health care facilities and schools transitioned to telehealth and distance learning.

In response, Congress made substantial investments in broadband funding to existing and newly established Federal broadband programs dispersed across multiple Federal entities. Of those investments, the bipartisan Infrastructure Investment and Jobs Act made the largest Federal broadband investment in our nation's history, totaling nearly \$65 billion for broadband programs at FCC, NTIA, and USDA, the primary agencies that administer existing broadband deployment grant programs.

As we move toward the 2023 Farm Bill, we must understand how these agencies plan to communicate and collaborate to effectively reach our shared goal of 100% nationwide coverage, which is why we established procedures for interagency coordination among USDA, NTIA, and FCC in the 2018 Farm Bill. We must continue to engage with each other to ensure effective coordination, evaluate the agencies' responses, and address any barriers that may exist.

Rural broadband will continue to be a major focus of this Committee. We previously held a Committee hearing to examine barriers to broadband connectivity and solutions and opportunities to overcome those impediments. Ranking Member Thompson and I also introduced the Broadband Internet Connections for Rural America Act which would make crucial and significant investments in the USDA broadband program to expand broadband in rural areas. As always, I'd like to thank the Ranking Member for his bipartisan cooperation and willingness to work with me on this issue.

We are always thankful to be joined by Under Secretary Torres Small and grateful to hear from our second panel of witnesses. Your combined experiences and interactions with these agencies will help us get a clearer scope of how broadband deployment is working on the ground. I look forward to your testimonies.

The CHAIRMAN. And with that, I would now like to welcome my distinguished Ranking Member, the gentleman from Pennsylvania, whom I enjoy so much working with, and we did it together, Mr. Thompson. You are recognized for your opening statement.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, Mr. Chairman, thank you, and thank you for just being a great partner in our work on broadband. And thank you to this Committee, completely unified in advancing the bill that we did that was thoughtful and, quite frankly, would have been very, very effective in bridging the digital divide in rural America. And quite shame on those who control the House floor for not giving us an opportunity to at least have a vote, right? And you and I worked hard to try to get that vote to occur.

The CHAIRMAN. Yes, we did.

Mr. THOMPSON. We were not successful, but I will address the alternative here in just a bit of what was passed, which was insufficient for rural America.

As we have heard across multiple hearings this Congress, the need for better broadband connectivity in rural America is immense. In the past, I have talked about the checkerboard of connectivity in my home State of Pennsylvania, with some communities well-served, while their neighbors, sometimes just down the road, down the street struggled to download their emails.

While broadband access used to be a luxury, today, internet connectivity is essential. It is essential for performing daily activities. Life is increasingly conducted more and more through the internet, and modern living requires constant, reliable internet access to fully participate. Quite frankly, rural America, or as I like

to call it, *essential America*, deserves to have the opportunity to compete for jobs, for economic opportunities, for educational opportunities, for healthcare access, all the things that come when we bridge the digital divide.

So it is unacceptable this quilt patch approach that we have taken for many years. And it was time to stop that—I don't believe what was passed out of the House and was signed into law will do that, but I do believe in what we put together and worked together in a bipartisan way would have accomplished that.

To address this need, the Federal Government has committed tens of billions of dollars once again over the past 15 years to fund new broadband systems across the country. The bipartisan infrastructure bill alone provided a staggering \$42 billion for broadband infrastructure just last summer. It is important to point out, and I think everyone in this room would agree, USDA and RUS in particular is the point to bridge the digital divide in rural America. And for those who don't know and are listening, USDA only got \$2 billion. I don't have a lot of trust in NTIA or FCC. They received significant dollars back under the stimulus in 2010, and they failed to bridge the digital divide. That is just based on facts and observations.

But I am a big, big believer and really thankful for our witnesses we have here today from USDA. Today's multiple Federal agencies, including USDA, NTIA, the FCC, and Treasury, are each individually responsible for distributing billions in broadband aid under their purview. Coordinating the distribution of those funds is essential. Far too often we have seen huge appropriations become insufficient through wasteful spending, inadequate oversight, poor planning, duplicative application where they go in and rebuild things that were built before *versus* reaching out to that last mile. And it will take a concerted effort between USDA—I actually believe it is going to take a better investment than \$2 billion in USDA—and certainly better concerted effort between USDA, NTIA, and the FCC, to ensure these taxpayer funds do not meet a similar fate.

And I remain disappointed that USDA was largely excluded from playing its essential role, and a role that it plays very effectively. We see evidence of that each and every year in more of a piecemeal approach in bringing broadband and its unparalleled understanding and reach into rural communities. It is the best situated agency to help rural providers serve their communities, yet my colleagues in the Senate made a different choice, choosing instead to create a new series of programs that comes with new bureaucracy and, quite frankly, new administrative costs that takes away from actually achieving all the—making that investment in resulting in full connectivity.

And so in addition to focusing on coordination, we must also ensure these new programs are accessible, they are efficient, and they are effective for rural service providers. As these new agencies wade into the difficult work of bridging the digital divide, it is critical they focus on the unique needs of rural communities.

Thank you to Madam Under Secretary for again being with us to talk about rural broadband. I have always appreciated the work the Rural Utilities Service does for our rural Americans. And thank

you to our witnesses on the second panel. I look forward to hearing from each of you.

I would be remiss if I didn't share my utter disappointment and, quite frankly, shock that representatives from the Federal Communications Commission and the National Telecommunications and Information Administration declined the invitation to testify today. Their absence is noted, and it illustrates their indifference towards the needs of rural Americans and our rural communities.

Mr. Chairman, once again, I really appreciate you and our friendship and the work that we have been able to do together to advance good, strong bipartisan legislation to bolster USDA's broadband programs, and I look forward to working with you in the upcoming farm bill to continue our work in strengthening rural connectivity.

With that, I yield back.

The CHAIRMAN. Well, thank you, Ranking Member, I appreciate your comments.

The chair would request that other Members submit your opening statements for the record so witnesses may begin their testimony and to ensure that there is ample time for questions.

Yes, and, Members, please mute yourselves. We have very important business to do. We are asking our agencies to coordinate, and we have to coordinate with the microphone. So please, let's mute ourselves until you come on and are recognized.

And now, I am pleased to welcome our first panelist. And this is a great person who has done great work here in Congress, and now she is the Under Secretary for Rural Development at the U.S. Department of Agriculture, Hon. Xochitl Torres Small. Welcome.

STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.; ACCOMPANIED BY CHRIS McLEAN, LL.M, J.D., ACTING ADMINISTRATOR, RURAL UTILITIES SERVICE, USDA

Ms. TORRES SMALL. Thank you so much, Chairman Scott, thank you, Ranking Member Thompson, and thank you, Members of the Committee. It is a joy to get to speak with you here today.

As you know, high-speed internet is a utility essential to modern life. It is also a cornerstone of rural economic growth. It is not news to rural America, but everyone now knows the ugly truth when it comes to high-speed internet. So far, most of rural America has been left in the slow lane. In the middle of COVID, I got a call from a school superintendent in rural New Mexico, and he was at his wit's end doing everything he possibly could to make sure his rural kids didn't get left behind in the middle of the pandemic. And the truth was that families, hardworking families in Hondo just didn't have the resources they needed, didn't have the internet they needed to keep their kids online. Today, we are all reckoning with that reality.

And because the situation is flatly unacceptable, Congress and President Biden have acted. Now—and we have heard this in your opening statements—agencies across the Federal Government have to work together to do something that is both essential and very difficult, bring connectivity and speed to rural America.

Last month, Secretary Vilsack announced the Department was investing the first tranche of the last round of ReConnect, \$401 million to provide access to high-speed internet, within that were multiple investments in rural places in New Mexico. And once completed, households in that very school district I mentioned will be able to get 100 megabytes per second, symmetrical internet service.

Now, you know as well as I do we can't lay fiber overnight, and the Federal Government can be a slow train. When I was in Congress, the work of agencies, that implementation side of new laws and appropriations, too often felt like a black box. My commitment to you today is that the process of delivering high-speed internet to communities in need will not be opaque. It can't be. I have heard your comments in your opening statements, and I want to inform you on what we are doing with what we have now because it is too important. It has to be a team effort. It is the work of communication, the work of partnerships, the work of coordination. And let's be honest, sharing with one another across government silos hasn't been a strength historically.

That is why USDA Rural Development is proud to serve as a critical coordinator for Federal rural work. Through efforts like the Rural Partners Network, we are making sure that investments like the bipartisan infrastructure law reach rural America. We are working together across Federal Departments to be better partners in place-based work, to build a better front door to the Federal Government, and to make Federal programs easier to access.

When it comes to the historic investment in high-speed internet, coordination must be a way of life. That is why we meet with the FCC, NTIA, and the Treasury on a biweekly basis and, frankly, regularly more often, both to establish a regular cadence of communication and to work through those sticky issues. We are learning to lean in to those sticky challenges.

We are also working with state legislators and state agencies providing trainings, connecting with other agencies and, most importantly, asking questions about how we can be better partners. I promise you, this is much more than a stack of MOUs. We are keenly aware of both the importance of the work and the historic nature of this moment.

We are in the early stages of an economic recovery from a global pandemic, but the promise and the initial work of high-speed internet is already making a difference, delivering speeds that are high enough to be long-lasting. I truly cannot think of a better time to deliver such powerful economic infrastructure to the communities that produce so much of America's food and energy.

Going forward, I ask for your candor, and I will give you mine. I will ask for flexibility when possible, too. We owe our best efforts to the people of rural America because I think we can all agree that when we invest in rural America, we are investing in all of our prosperity. Through this work, especially when we are really working together, Congress and the Biden Administration are sending a message to rural America that we get it. We know the slow lane is unacceptable, and we are here to be true partners in building better futures for our nation.

By delivering on this promise, we are bearing witness that rural matters. Thank you for your time, thank you for your collaboration, and I look forward to your questions.

[The prepared statement of Ms. Torres Small follows:]

PREPARED STATEMENT OF HON. XOCHITL TORRES SMALL, UNDER SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Scott, Ranking Member Thompson, and Members of the Committee, thank you for the opportunity to come before you today to discuss the state of high-speed internet in rural America, and the United States Department of Agriculture Rural Development's role in supporting connectivity across the country. Reliable, high-speed internet is no longer a luxury—it is a utility essential to modern life. It is also the cornerstone of rural economic growth—supporting education and healthcare as well as business and industry.

But, as need for high-speed internet becomes more ubiquitous, between 6 and 12 percent of Americans lack access to high-speed internet, and rural residents are almost twice as likely as urban counterparts to have insufficient access to broadband.¹ This gap widens significantly in communities of color and low-income families—a gap that was impacted particularly sharply during COVID-19 when the pandemic drove school and business online.²

The value of high-speed internet cannot be understated—it has the potential to transform rural life as we know it. High-speed internet strengthens connections within communities, as well as between rural America and the rest of the nation, providing new markets for rural business and giving people the ability to create and sustain rural economies. It allows communities to tap into external markets and regionalize economic opportunity, all while opening doors for rural students, healthcare facilities, and patients. It also helps foster much-needed collaboration in rural areas as communities try to respond and adapt to extreme weather, shifting markets and systemic barriers.

That's why I am grateful for President Biden's leadership and Congress' continued support for high-speed internet in rural America. The Bipartisan Infrastructure Law provides \$65 billion to expand rural broadband, including \$2 billion for Rural Development's ReConnect program. The President's Fiscal Year 2023 budget proposes an additional \$600 million in investment into ReConnect, and I am deeply appreciative that the House has approved \$450 million for FY23. If appropriated, I look forward to partnering with Congress as Rural Development administers these funds and supports high-speed internet in rural America.

Supporting Rural Economies

Broadband is make-or-break for rural America, connecting businesses to both domestic and international markets, and giving communities the tools they need to collaborate and share best practices. High-speed internet also affects local business decisions every day—it significantly impacts the decisions of larger firms considering relocation to a remote area,³ and small local businesses as they work to expand and increase online sales. High-speed internet is also strongly tied to economic development and job growth across the country, benefits that could be felt deeply in rural areas. Independent economic modeling shows that there is a strong correlation between both job growth and GDP when broadband becomes more widely available.⁴

Rural Development, in close coordination with other Federal partners, is working to close the digital divide in rural America, to meet the goal of the Biden-Harris Administration to connect all Americans to reliable, affordable high-speed internet, and to ensure that the opportunities provided by high-speed internet services are available to all. In the first two rounds of funding, Rural Development's ReConnect program has provided more than \$1.5 billion to 181 projects to increase broadband service. These projects will serve nearly 300,000 households nationwide. Part of the success of ReConnect can be attributed to its deep investment in administrative sup-

¹ <https://www.americanprogress.org/article/rural-broadband-investments-promote-inclusive-economy/>.

² <https://www.americanprogress.org/article/rural-broadband-investments-promote-inclusive-economy/>.

³ https://www.researchgate.net/publication/310466805_Broadband_Internet_and_New_Firm_Location_Decisions_in_Rural_Areas.

⁴ <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-charting-a-path-to-economic-growth.pdf>.

port for technology and staffing, which broadens the reach of the program to include the least connected communities.

In the Spring, Rural Development closed its largest-ever application window for the third round of ReConnect program funding. This will provide more than \$1 billion in broadband funds to rural communities, including \$401 million in already disbursed high-speed internet funds. Recently, we opened the fourth ReConnect program application window as part of distributing a historic investment in broadband funding provided by the Bipartisan Infrastructure Law for broadband programs operated by Rural Development. These investments are momentous and represent significant strides toward closing the digital divide and ensuring that all rural Americans can participate in the global economy.

Sustaining Rural Communities

The Biden-Harris Administration and Secretary Vilsack strongly support the desire of rural residents to live their entire lives in the place they call home. I hear from rural people that access to healthcare and education are integral to achieving that goal, and high-speed internet can increase access to both.

Health care, elder care, childcare, and behavioral care are critical to rural America, helping families remain in rural areas through all stages of life. Yet, healthcare in rural areas faces significant challenges. Even though approximately 20 percent of Americans live in rural areas, barely $\frac{1}{10}$ of physicians practice there and 61.5% of all Primary Medical Health Professional Shortage Areas in the United States are in rural areas.⁵ COVID-19 brought the critical need for access to care into very sharp focus—lack of access to care costs lives. Telehealth insurance claims rose 8,000 percent, driving a deeper wedge between rural and urban care.⁶ As COVID swept the country, it proved to be nearly twice as fatal for rural Americans as for urban Americans.⁷

To increase access to healthcare in rural communities, Rural Development operates the Distance Learning and Telehealth (DLT) Grant Program and the Community Connect Grant Program. DLT aims to increase the adoption and use of telemedicine technology to provide(?) to offer opportunities for improving rural care in the future. Community Connect provides funding for public entities to get access to high-speed internet service for the purpose of delivering educational, healthcare, and public safety opportunities to their communities. In some cases, applicants have helped place telemedicine carts at rural hospitals, rural health clinics, and rural penitentiaries for healthcare and behavioral healthcare purposes. Paired with the nearly \$2 billion in ReConnect funding through the Bipartisan Infrastructure Law, Rural Development is working to ensure that even the most unserved residents have access to telehealth services in their home.

In addition to healthcare, access to education remains a significant challenge for rural communities. This challenge was exacerbated during the COVID-19 pandemic, as schools shifted to a virtual learning environment. Rural communities also cannot thrive unless families have access to education for their kids, and COVID-19 drove home exactly how critical high-speed internet is to a modern education. During the pandemic, as schools shifted to a virtual learning environment, the already-existing “homework gap” widened dramatically between students with access to high-speed internet and those without. During the pandemic rural students were twice as likely to not have the technology they needed to complete their homework, and those without high-speed internet often resorted to doing coursework in parking lots to avoid falling behind. The repercussions of this learning environment will have consequences beyond the pandemic, especially as schools and institutions of higher education increase their use of digital learning strategies—students without broadband or appropriate technology were roughly a half a grade level behind their peers,⁸ impacting post-secondary success and workforce readiness.⁹

To increase access to education in rural communities, DLT and Community Connect provides support to rural schools to expand virtual learning capacity. DLT helps rural communities use telecommunications to connect to each other and to the world, overcoming the effects of remoteness and low population density. For example, this program can link teachers and in one area to students in another. Community Connect provides financial assistance to applicants, like schools, that will provide broadband service in rural, economically challenged communities where service

⁵ <https://data.hrsa.gov/Default/GenerateHPSAQuarterlyReport>.

⁶ CAP report.

⁷ <https://www.cidrap.umn.edu/news-perspective/2021/09/rural-americans-more-likely-die-covid-19>.

⁸ <https://www.washingtonpost.com/education/2022/06/17/student-internet-access-rural/>.

⁹ https://quello.msu.edu/wp-content/uploads/2020/03/Broadband_Gap_Quello_Report_MSU.pdf.

does not exist. The impact of both programs is more students connected to the resources they need to learn, advance academically, and complete their education in the place they call home.

Oversight & Coordination

At Rural Development, we understand that high-speed internet cannot be deployed in rural and remote areas without tackling existing challenges. To address these challenges, Rural Development is working in close partnership with other Federal agencies, states, local governments, Tribes, and Congress to ensure seamless deployment of reliable, affordable high-speed internet.

Particularly during the deployment of the Bipartisan Infrastructure Law funds, close and careful coordination is critical to preventing duplication of funding. Although USDA, the Federal Communications Commission (FCC), and the National Telecommunications and Information Administration (NTIA) are the three primary Federal agencies charged with broadband deployment, more than half of the fifteen Federal departments have some responsibility for broadband funding.¹⁰ President Biden has made coordination a top priority, convening standing meetings between agency senior staff to coordinate on access, affordability, and avoiding overbuilding. In addition, last month USDA, Treasury, NTIA, and FCC signed a data sharing memorandum of understanding to develop consistent reporting processes and share yet more information with each other about broadband projects.

It is also essential that Rural Development projects are serving their proposed service territory, that providers are meeting their build-out requirements, and that we continue to monitor broadband deployment to ensure efficient build-out. Once an award is approved, USDA takes a multifaceted approach to monitor the progress of the construction. Award funds are advanced only for specific projects that have been approved for funding. Our national office staff monitors the progress of the advances and ensures that the construction conforms to the approved application. In addition, USDA has a general field representative (GFR) in each region throughout the country who visits the project and inspects construction that is being completed. Awardees are also required to submit reports providing that all proposed premises are actually served and submit a final report when all construction has been completed. The GFR then conducts field visits to make sure that the premises are getting served.

The Rural Development model focuses on funding community-driven projects, awarding funds to providers who do not overpromise and underdeliver, all while bringing affordable high-speed internet to the families and businesses in rural America who need it the most.

Conclusion

These programs demonstrate remarkable success in the drive to sustain and create rural economies in a coordinated and collaborative way. Rural businesses, healthcare providers and schools know what works for them, and Rural Development aims to support their successes and their goals by improving access to reliable affordable high-speed internet.

Rural Development is poised to meet and expand our commitment to high-speed internet deployment in rural America. I look forward to working with this Committee to support this mission.

The CHAIRMAN. And thank you, Under Secretary Torres Small, for your excellent testimony.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. And you will be recognized for 5 minutes each in order to allow us to get to as many questions as possible.

And now once again, please, please keep your microphones muted until you are recognized so that we can minimize background noise and get through our hearing in a very respectful way. Thank you.

And now I recognize myself for our first 5 minutes.

Under Secretary Torres, with this money, this \$65 billion that we have gotten for this program going out through several different agencies, oftentimes these agencies compete with one another. All

¹⁰ <https://www.gao.gov/assets/gao-22-104611.pdf>.

kinds of problems develop that slow down or make an impediment of getting the money out, not only with the Federal agencies having to coordinate, but then you have your state agencies to coordinate as well. Treasury Department, Commerce Department, NTIA, USDA, FCC, I think we about got every letter in our alphabet here. So tell me, what agreements, what procedures need to be put in place to ensure that this broadband \$65 billion in resources across all these agencies are effectively utilized to reach our goal in finally connecting our rural communities?

Ms. TORRES SMALL. Thank you so much, Mr. Chairman, for that question. And it is the big question: \$62 billion is a huge investment, and the only way we reach the places we need to is if we coordinate. I will be very honest with you. It is hard. There are silos. People are used to working within their agencies. But there are also benefits in terms of certain community members are used to working with Rural Development or used to working with FCC or used to working with NTIA, and so we are learning how to reach different people. And it is that required coordination. We are also learning from each other. So, for example, NTIA helped with some of our outreach early on with Tribal communities, and we also helped provide some support in reviewing some of their applications.

One of the biggest challenges we have learned is that our work—one of the hard parts is timing, making sure that our programs and the timing for our windows of application is aligned with timing for other programs. And it is going to become even more of a challenge when we are also working with the states. That is why we are trying to get out ahead of the game when it comes to states. We are meeting directly with state legislators and providing trainings on what ReConnect is so that they can find ways to supplement or do something different from what ReConnect does, and also with state agencies. So those are some of the ways we are trying to work together.

And I will turn it over to Acting Administrator Chris McLean if you have anything you want to add about it.

Mr. MCLEAN. Oh, thank you very much. Thank you. Thank you. The tradition of working across agency boundaries and working with state regulatory agencies is something that is very familiar to the Rural Utilities Service. We have been in the telecommunications finance business since 1949, and we have had to work with leveraging FCC Universal Service support, working with state regulatory authorities through our financing. So we are very proud of working together across agency lines. And, as the Under Secretary said, coordination sometimes is difficult. We have three—Treasury, NTIA, FCC, and ourselves, four different agencies with infrastructure money, and we have four separate statutes. We have to be faithful to our statutes. But we work really hard to resolve any disagreements or de-conflict our investments with each other.

The CHAIRMAN. And let me just ask you, do you have an inter-agency plan of what are the specific roles of each of our Federal agencies, and a plan of connecting and making sure there is a smooth transition of getting the funding down to each of the states?

Ms. TORRES SMALL. This is a really, really good question because what we have are our interagency agreements in terms of coordina-

tion. And with emerging technology like high-speed internet, it does require some flexibility. You have seen in terms of the conversations that we have regularly with Congress about speeds, for example, and different technologies. The flexibility is really crucial there, and it will become all the more crucial when we are coordinating with states as well. So our priorities are regular coordination, that cadence, key guiding posts in terms of what we are doing, and then being flexible with each other.

The CHAIRMAN. Thank you very much. And now, the gentleman from Pennsylvania, Ranking Member Thompson, you are recognized for your 5 minutes.

Mr. THOMPSON. Thank you, Mr. Chairman.

Under Secretary Torres Small, good to see you again. Thank you for your work. Mr. McLean, thank you for your longstanding work as well, much appreciated.

Under Secretary, as you know, USDA, FCC, NTIA, and Treasury entered into this interagency agreement in May of 2022, to collaborate on Federal broadband programming and funding. Can you share any insight on the current collection and reporting of data and metrics related to broadband deployment between agencies? And have you run into any unexpected coordination challenges?

Ms. TORRES SMALL. I appreciate that you asked for the challenges because that is how we learn from these things, right? When it comes to the information collection, I think our different strengths are really well-suited. So Rural Development's specific strength of when there is a conflict with a map, for example, we have to provide directly to each home, we have to make sure that each home within that service area has the ability to access that service. And so being able to identify on the ground whether or not that happens gives us data that we can then share with NTIA for NBAM (National Broadband Availability Map), and then also making sure that FCC has access to it.

We also go the other way, so as we look at different awards, making sure we have the data about where those awards are covering and how that interacts with our programs. So it has to go the other way. And the challenges really do circle around timing. So as we put out our rules, we have to make sure we know what other awards are going to be coming down the pipeline during that time. And for ReConnect 4, I think it was a really good example of how we learned that lesson. So we were very specific on RDOF, for example, and whether entities were ready to authorize, those awards were ready to authorize, which is a key step in the process. And so in ReConnect 4, we specifically said if they were made ready to authorize by this point, we would work to avoid overbuild. But having that clarity was really valuable, and that was a lesson learned.

Mr. THOMPSON. Very good. Well, FCC is—the way they have done their mapping in the past—and maybe that has changed, I certainly hope it has. And I think your part of that and coordination can be a force for good on this. I mean, the FCC by Census zone would make two egregious errors in the past. I am not sure what the current process is. But, if they found that there were one or two entities within a Census zone that had broadband connectivity, they would color the entire map as *served*, excluding everyone else. It may be a hospital, may be a school, a university,

and leaving out the large portion of the district from being eligible from these funds and development. And then the even more egregious one was the wording that said if the conditions exist by which connectivity should be occurring an area is served, despite the fact that no one in that Census zone was served. And that is just two of the errors that I think that the FCC made. So, I am appreciative of the fact that you will be at the table on this because I believe the FCC needs adult supervision and needs supervision of people that understand rural America. I would be much more comfortable if you all were at the tip of the spear on this *versus* in the relationship that you have.

But, as you know, the USDA currently employs nearly 100,000 employees across more than 4,500 locations. Comparatively, NTIA and FCC retain almost 2,100 employees combined. Their resources aren't near as extensive in order to have the penetration into rural America the way our USDA professionals do. However, since 2020, 13 new broadband programs have been authorized and funded by Congress, none of which are administered by USDA. Shame on Congress. Shame on Administrations for allowing that to occur. Can you comment on why USDA's scope and scale really are best suited to deliver broadband programs to rural America? And why is it so critical that USDA remain an integral player in broadband deployment?

Ms. TORRES SMALL. Ranking Member Thompson, thank you so much for lifting up our staff at Rural Development and in USDA. It is absolutely a fundamental piece of who we are, having people living in the communities that we serve. And it is rare across the Federal Government, and that is why we have been asked to lead things like the Rural Partners Network because that takes real connection with community so that we can listen to them and learn from them. And that is why we are a fundamental part of the solution when it comes to high-speed internet because each situation is different. The geography, how do you get behind the nooks and crannies of mountains or how do you lay fiber on the sea floor? And having that specific expertise as well as the partners on the ground is a crucial picture that we bring to the table.

Mr. THOMPSON. Very good. Thank you, Mr. Chairman.

The CHAIRMAN. The gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of the Committee on Agriculture, is now recognized for 5 minutes.

Ms. ADAMS. Thank you, Mr. Chairman, for hosting today's hearing. Thank you as well to the Ranking Member.

Under Secretary Torres Small, it is good pleasure to have you here with us today. Service is the rent we pay, and it gives me great pleasure to know that you are keeping your rent paid up with all of the great work that you are doing.

We have discussed at length the bipartisan infrastructure law, and our last farm bill, to make significant investments in broadband, particularly in rural broadband. In my State of North Carolina, I am proud that our Governor Roy Cooper announced \$206 million in grants from funding that we here in Congress provided to expand internet access for rural communities. Eighty-five thousand households will now have access to high-speed internet. More than 2,000 businesses will also have it.

But it is more than just businesses that need this access. It is our rural schools, too. So, Madam Under Secretary, can you discuss what these investments will mean for our K-12 and institutions of higher education in rural areas?

Ms. TORRES SMALL. Thank you so much, Congresswoman. And it is wonderful to see you and for your focus on education because our kids in rural places are our future, and if we can make sure they have good education, it gives them a chance to build their best opportunities hopefully in the rural communities where they live. And when it comes to high-speed internet, that is fundamental to that. So ReConnect's program, one of the requirements is that within a service area, every address has to be eligible to receive service, so you are not skipping schools or houses, and that is crucial because we certainly hear on the ground stories of internet service lines that go all the way except for that last house that is really hard to reach or that last location. So that is one way that we reach education is by connecting every address within so that both at the school and kids' homes, they can do their homework at home, is possible.

The other way is other programs within Rural Development. So we have the Distance Learning and Telemedicine Program, which helps provide some of the infrastructure, the hardware for using that high-speed internet so that schools, applicants can receive funding to be able to get the best technology that allows their students to learn and prepare for careers in computer science, for example. So there is an in to learn. You can broaden your horizons in a rural place if you can connect with people all across the world.

Ms. ADAMS. All right. Thank you.

Ms. TORRES SMALL. So those are two ways that we are working.

Ms. ADAMS. Thank you. I do agree. And it is absolutely essential. It is life changing.

I have also heard from rural schools what happens when they aren't able to provide powerful internet connections to their students. They miss out on research opportunities, jobs, and a whole lot more. So, Madam Under Secretary, most states have a research and education network that provides high-speed internet access to schools, but not all schools are hooked up to those networks, and during our push to connect rural areas, what do you think we should do to ensure that our rural HBCUs and MSIs and Tribal colleges can access these critical networks?

Ms. TORRES SMALL. That is a great question. And I would love to follow up with you about specific outreach that we can do to HBCUs if they are lacking that high-speed internet connection right now because one of our focuses at Rural Development has been how do we reach out to potential partners? How do we make sure folks know how to navigate the ReConnect process, which can be challenging, and know about the other resources that are available as well? So I would love for us to be able to follow up with you to talk about how we can intentionally reach out to HBCUs.

[The information referred to is located on p. 1528.]

Ms. ADAMS. Okay, great. Well, we will look forward to that. And thank you so much for being here and for your work.

And, Mr. Chairman, I yield back the balance of my time.

The CHAIRMAN. Thank you.

And now the gentleman from California, Mr. LaMalfa, is recognized for 5 minutes.

Mr. LAMALFA. Thank you again, Mr. Chairman.

Under Secretary, welcome. Thank you. Thank you for both attending today. Nice to see you. We wanted to point out that, recently, Rural Development awarded a \$40 million ReConnect grant to the Volcano Telephone Company in Pine Grove, California, just not too far from my own district, but certainly the issues are common to a lot of eastern California and Sierras. It will help boost the high-speed internet in those mountainous areas and help with smoke detection, which is something that is very critical in our state, as well as your home state with so much wildfire.

And so with this technology and with this ability to better detect smoke and its density for health reasons, or an early jump perhaps on fire, what do you think we can do to even better utilize the current programs we have to monitor these disasters as they occur, in order to expedite emergency responses and better warn people about health warnings from dense smoke like that? So, it seems like we are on a good path. What can we do to accelerate this, do you think?

Ms. TORRES SMALL. Thank you so much, Congressman LaMalfa. It is such a pleasure to see you.

And I got the chance to talk with Volcano Telco, and I was so impressed with this fourth-generation private ISP that is located in the community they serve. They talked about being really connected so that if internet service goes down because of a wildfire or other reasons, they have people knocking on their door. I mean, that is how accountable they are, and it makes a real difference. I asked them specifically about speeds because they really are that last, last mile in the frontier, and how important is a high speed for them. And they specifically identified the video monitoring for smoke because that video monitoring in remote areas has to go up to a cloud for storage, so it requires not only download speeds but upload speeds to upload that to storage so they can identify where and keep running where the potential smoke is. So it was really helpful to understand that that speed is really valuable even that far out.

In terms of how we can better utilize this program to do things like that, the other thing they mentioned was integrating—making sure that electric wires, working with rural electric co-ops or other electricity providers so that they know when to shut off the power if they are in danger of wildfire or spreading a wildfire in the case of large winds. So I think that there are some other opportunities there to increase safety through high-speed internet.

Mr. LAMALFA. Yes, the wires are indeed a critical issue in our forested areas like that.

Can you speak a little about how USDA, FCC, and NTIA all have their own data mapping and do not necessarily follow the same methods of collection of that data. So recent legislation that we have passed here that included the Broadband DATA Act (Broadband Deployment Accuracy and Technological Availability Act (Pub. L. 116–130)) to help better simplify this information and require information sharing. And you talked about the cross-pollination between agencies. So how do we ensure that those areas are

mapped correctly since we have these differing methods and then we don't have inaccuracies from the different styles of—are they that much different to begin with?

Ms. TORRES SMALL. There are some differences. I think each iteration is getting better, and we are working together much better as well. I remember when I was in Congress, the Census tract issue was the bane of my existence because out in the West, you have big states, you have big land, and a Census tract is not an accurate area of measurement for whether or not you have high-speed internet. That is changing. It is work, though. We are learning a lot from states and their mapping efforts. And Georgia is a key example where there has been some really exciting progress, and we are sharing that information. So NBAM with NTIA has been really good about sharing information and collecting it. And so frankly, our different ways of collecting information has been helpful with NBAM because we are able to get information in different ways, cross-reference it, cross-check it on a mapping platform.

As we look to FCC and the fabric that they have, as well as the updates, we are working there as well. I mentioned we all have different relationships with different people. They are used to working with different agencies. And so we helped get out the word for the deadline for internet service providers to make sure they were providing information to FCC for the creation of their maps.

Mr. LAMALFA. I am sorry. I am running out of time. Do you have concerns that linking with these other sources could somehow harm your own data mapping? Do you have any concerns about that?

Ms. TORRES SMALL. That is a really good question. I would love to follow up with you to see if there are—just to ask generally to my team. None have risen to me because we are sharing really well and because we are using multiple sources of information, and last, because we have that ground-checking capability so if there are conflicts about the different mapping, we can go on the ground and check to see if that service—but I will get back if we find any others.

[The information referred to is located on p. 1528.]

Mr. LAMALFA. Okay. And also check to see do you have any concerns that might slow down the USDA's current process on its own funding? And then I will just leave that there. So thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Sure.

The gentlewoman from Maine, Ms. Pingree, is now recognized for 5 minutes.

Ms. PINGREE. Thank you very much, Mr. Chairman, and thank you so much for having this important hearing. And thank you, too, Madam Under Secretary. We are so pleased to have you in that position and before our Committee today and working hard on this really important topic to rural states like mine.

Some people don't think about New England being rural, but Maine is considered one of the most rural states in the nation, and we have a lot of distance between internet service providers. We have some of the slowest speeds and lack of availability, so this has

been plaguing us for a long time, and our state is very interested in repairing the problem.

One thing I have dealt with quite a bit are the issues around the ReConnect Program. When you have a small community as we do—and I represent over 100 small communities, many of them under 10,000 people, under 5,000 people—there is rarely the level of staffing that is needed. And what we hear very often is that it is a part-time employee, maybe a volunteer for the town that is trying to deal with very extensive and complicated reporting requirements. So can you talk to us a little bit about technical assistance provisions that are in place and how we can do more or what you are doing now to really give ground-level support to those communities who need to be getting the access to these programs that we are funding?

Ms. TORRES SMALL. Congresswoman Pingree, thank you so much for that question. Technical assistance is one of the key opportunities and, frankly, challenges when it comes to serving rural places. If you have a volunteer mayor or a part-time clerk, it is really hard to apply for all these grants. And then if you catch that car, then you have to drive it in terms of the reporting requirements. So one, we are working to make it more simple; but two, we are also working on technical assistance. And Rural Development is using some of the administrative funds from the bipartisan infrastructure law to increase and to build upon that great staff structure that Ranking Member Thompson mentioned. And that is crucial when it comes to reaching those hard-to-reach places.

Also, in your bipartisan bill to authorize ReConnect, I really appreciate the work that Chairman Scott and Ranking Member Thompson put in for broadband connectors, recognizing the need for continued investment in technical assistance, so we really appreciate that you are continuing to see that. And I will note that NTIA is also investing significantly in technical assistance. We are coordinating to make sure that technical assistance doesn't overlap but rather supports each other. They are focusing mostly on interacting with state agencies and state broadband offices, and our technical assistance is more focused on the providers, the internet service providers.

Ms. PINGREE. I just want to follow up a little bit because it is an issue I have brought up previously. It is an issue we have been hearing about over the years. We have been told that there are some technical assistance people that are called general field representatives that are meant to be there to help and support, but we often get the feedback that there aren't enough, that they are spread over a wide range. I don't know how many states each GFR covers. But again, I feel like every time I have this conversation—and I have great faith in you accomplishing this—we hear like, oh, that is going to come, we are working on it. Can you talk at all about anything else you might need? Should there be more language in the farm bill?

I guess I will just emphasize again if our main goal here—and everybody on this Committee talks about rural America. We are all so supportive of doing more for rural America. But just as you acknowledged in the beginning, and I appreciate that you are talking about small communities that really need on-the-ground kind of

technical assistance and need to have the ability to apply for and then manage these funds in. Do you see this happening in the near future? Do we need to write language in the farm bill? What can we do to just assure it really comes to be?

Ms. TORRES SMALL. Thank you for holding our feet to the fire on this. It is something we need to deliver. And the first thing I will note, the administrative funds in the bipartisan infrastructure law really were helpful in terms of helping us work to set up more technical assistance. We have hired more GFRs as a result of that. But one of the challenges is hiring and creating the right position descriptions and making sure that it truly does result in bringing someone on board, and that is a place where I would like to have a deeper dialogue.

I will turn it over to the Acting Administrator for any additional points.

Mr. MCLEAN. No, thank you very much. And staffing is always an issue for us. We are a remarkably small agency that does a remarkable amount of work. There is at any given time about 100 or 20 telecom staffers that are delivering this massive program. We are very, very proud of that work. We have about 25 or so GFRs in telecom and about 23 or so in electric at any given time, and that is to cover the whole country. So we are not able to have a GFR in every single state, but we try to maximize our outreach. We use contract support. We have had webinars to try to help communities.

[The information referred to is located on p. 1529.]

The CHAIRMAN. Unfortunately, the gentlewoman's time has expired, but that is very valuable information. Please communicate it in writing to us.

Ms. PINGREE. Thank you.

Mr. MCLEAN. Thank you, Mr. Chairman.

Ms. PINGREE. Thank you.

The CHAIRMAN. We are after smooth sailing to get this here, so please get that to her.

And now I recognize the gentleman from North Carolina, Mr. Rouzer, for 5 minutes.

Mr. ROUZER. Thank you, Mr. Chairman.

And, Ms. Torres Small, great to see you and, Administrator, thank you for being here as well. All of my life, I heard about haves and have nots, and I have decided over the last 5 to 10 years that those in the have category have high-speed internet access, and those who are in the have-not category are without it. It bridges racial divides, demographics, and really, it is all geography. Just like many other Members of Congress, I have a lot of communities that have good access, and I have a lot of communities that do not have good access. And it is a critical, critical piece of infrastructure, as we all know.

So quick question, just overall basics, your overall portfolio, how much is—if you look at all the programs, how much is grant, how much is loan, and how much is loan guarantee?

Ms. TORRES SMALL. Oh, that is that is a great question. So in terms of ReConnect, the most recent round, ReConnect 4, \$150 million is available for loans, and the max request is \$50 million. For a 50 percent loan, so 50–50 grant-loan combination, up to \$150 mil-

lion is available for loans, and \$150 million is available for grants. And then there is 100 percent grants. And so there is \$150 million available as a set-aside for all full grant applications, and then there is also a set-aside for Tribes, persistent poverty areas, some have-nots, socially vulnerable communities, as well as Alaska Native corporations. And then there is also a separate set of set-asides of \$200 million for project-serving areas where 90 percent of households lack sufficient access to broadband.

Mr. ROUZER. How much is loan guarantee? Are we doing much in the area of loan guarantee?

Ms. TORRES SMALL. Not in high-speed internet but in other programs it is a fundamental part, so B&I loan guarantee, for example, and facilities.

Mr. ROUZER. Sure. Well, broadband is a tricky subject because technology changes so rapidly. I think fiber is going to be a critical component for some time to come. How do you make your judgments on investments as it relates to very rapidly changing technology?

Ms. TORRES SMALL. That is such a great question. And it is that emerging technology piece that makes it challenging to navigate. We focus primarily on speed, what is the build-out speed that you can get to based on the technology. There is also some statutory limitations, so ReConnect requires us to refer to a law that talks about fixed broadband, terrestrial or wireless, and so that limits some of our flexibility. In the first two rounds of ReConnect, we tried to use as much flexibility as we could in some emerging technologies but didn't have many takers, frankly. So for ReConnect 4, we are focusing on the speed build-out and the technologies where we have had interest. But it is an open dialogue, it is changing conversation, and we would love to continue that conversation with you.

Mr. ROUZER. So with regard to ReConnect, the program has a number of administrative burdens, which make it a little difficult, time-consuming, and cumbersome for some—or actually many providers from what I hear. So the program requires—and this is an example. The program requires the provider to submit significant information regarding non-funded service areas. It also requires all environmental approvals to be obtained in sequential order rather than filed and reviewed concurrently. How are you all working through these burdens? And doesn't it make sense to streamline this and have these objectives reviewed concurrently?

Ms. TORRES SMALL. Thank you so much, Congressman. And I will say a little bit and then pass it over to Administrator McLean. We absolutely have to work to make it as accessible as possible, recognizing that these are big projects that require sophisticated administration. The information about outside areas that aren't funded but are covered helps us support those maps that we were just talking about and make sure we are navigating the overbuild situation, making sure that we are doing as much as we can to leverage what we have to reach the places that are unreached.

When it comes to environmental reviews, there has been a real learning curve. The first two rounds of ReConnect, we were casting a broader net, frankly, than what the law called for in terms of both timing and when it was necessary to do consultation. So we

have shifted the timing there, and we think we have the appropriate match, but there is still work to be done.

In terms of sequential environmental reviews, I will pass it over to Acting Administrator McLean.

Mr. MCLEAN. Thank you very much. And another thing about round 1 and round 2 was the effect of the pandemic, particularly in those early months when it was a total lockdown. Historic preservation offices were closed at Tribal level and state level, so environmental review just elongated. So we worked very hard to try to expedite environmental review as much as possible. But it is it is a point well-taken and—

[The information referred to is located on p. 1529.]

The CHAIRMAN. The gentleman's time has expired. Sorry about that. If you could communicate your thoughts in writing to us it would be great.

Mr. MCLEAN. Thank you.

The CHAIRMAN. And now the gentlewoman from New Hampshire, Ms. Kuster, is recognized for 5 minutes.

Ms. KUSTER. Thank you, Mr. Chairman. I so appreciate the Committee holding this important hearing on access to broadband communication in our rural communities.

Compared to even just a generation ago, the services and tools available to us now with the click of a button are absolutely remarkable and essential. Essential government services, medical check-in, school courses, and job training are all accessible at the time and place of our choosing. Reliable, affordable, high-speed broadband service is what makes those things possible. And while it brings incredible benefits, it also exacerbates the gap for those who do not have access to the service or simply cannot afford it.

We have talked for many years, and I have been a proud Member of Mr. Clyburn's Rural Broadband Task Force. Finally, I am so excited that Congress is matching our words to our actions. In the past 2 years, we have enacted targeted programs and made historic investments to bridge the digital divide. This includes efforts not only aimed at building the physical infrastructure to support broadband networks, but to ensure that this essential service is affordable to our rural, hardworking families. Some of those programs have already begun disbursing funds and connecting communities. The remaining are being stood up now as we speak.

Just last week, I am proud to announce that New Hampshire received \$66 million in broadband funding under the American Rescue Plan (Pub. L. 117-7) Capital Projects Fund, bringing the total to \$122 million to help connect more than 24,000 Granite State homes and businesses to affordable high-speed internet. It will be crucial for the agencies administering these programs to communicate and coordinate so that the investments are effective and efficient and reaching the greatest number of my constituents.

And that is why I am pleased that we enacted legislation in the 2020 Consolidated Appropriations Act (Pub. L. 116-93) to create a new office of the NTIA tasked with tracking and coordinating broadband deployment and funding in programs all across the government. We also required USDA, NTIA, and FCC to enter into a memorandum of understanding to ensure they are sharing data about their respective broadband deployment programs. All this

builds on the progress that we all fought so hard for in the 2018 Farm Bill, boosting grants and loans for broadband infrastructure by \$350 million per year. And as we look ahead to writing the new farm bill next year, I am determined to build upon these critical winds and further enhance USDA's broadband programs.

Madam Under Secretary, great to be with you. You mentioned the Distance Learning and Telehealth Grant Program that is such an important component of expanding broadband. Could you comment—I know you have done a lot of travel and talked to applicants—on the feedback you have heard? Is there anything that we need to do legislatively to help further streamline the process and support applicants [inaudible] pointed out?

Ms. TORRES SMALL. Congresswoman Kuster, I lost the last part of your question, but I think you are asking about how we can streamline programs like the Distance Learning and Telemedicine Program to—

Ms. KUSTER. If you need—sorry to interrupt. If you need anything for us to do legislatively to help you streamline those programs.

Ms. TORRES SMALL. Thank you so much for that question. It is a crucial piece. One of the things we hear regularly across our programs that can be hard and that was done in our high-speed internet funding is providing no match grants when available. It has helped us reach the most socially vulnerable, the persistent poverty counties. It is really crucial, and also allowing us some flexibility in the tools that we provide. But for some specific commentary on the Distance Learning and Telemedicine, I will turn it over to Administrator McLean.

Ms. KUSTER. Thank you.

Mr. MCLEAN. The Distance Learning and Telemedicine Program is one of our most popular programs across the board. We consistently have more applications than we have funding available to be able to meet those needs. And it is always heartbreaking to have to leave projects still on the table. But fortunately, Congress year after year has been able to provide us support, and we do appreciate that.

Ms. KUSTER. Great. One quick question and maybe you will need to submit in writing, but I strongly concur with your sentiments about how access to reliable telehealth services helps ease the provider gap in our rural communities and wondering if you could share insights that you have heard about how USDA broadband programs have opened up new telehealth options.

Ms. TORRES SMALL. Someone even went so far as to say it is a recruitment tool. A nurse who was trying to get other folks to apply to her rural hospital said once they were able to get the technology that worked with high-speed internet to be able to reach more people in their homes, the workforce was just more excited to be there because they could better do their job.

[The information referred to is located on p. 1529.]

The CHAIRMAN. Thank you.

Ms. KUSTER. Thank you. I yield back.

The CHAIRMAN. The gentleman from Georgia, Mr. Allen, is now recognized for 5 minutes.

Mr. ALLEN. Thank you, Mr. Chairman, and thank you for hosting this hearing. And, Madam Under Secretary, thank you for your attendance this morning.

Obviously increasing broadband—well, actually completing broadband to all rural Americans has been my top priority here in Congress. There is nothing that holds back rural America from continued economic development than broadband and cell service.

Since I was first elected, there has been a major broadband build-out, but we saw apparent shortfalls in that during the COVID pandemic, particularly with education, and then the ability for people to actually get the job done when they were in living in rural America.

Right now, for the first time, it appears that funding may not be the most pressing issue. More than \$147 billion in Federal funding has been dedicated to broadband in the last 4 years alone. This is a lot of money, and it is time for us to take account on exactly where in the heck the money is.

To that point, I am disappointed that the Federal Communications Commission and the National Telecommunications and Information Administration are not represented in this hearing today. Of all the committees in Congress, there is no question that the House Agriculture Committee is the one most in tune with the needs of rural America. I urge the leadership of this Committee to convene a separate hearing in the future where we can hear from the leadership of these agencies as well.

I said earlier that I believe at this moment funding is not necessarily the number one concern that Congress should have. Instead, it should be broadband mapping. In July of last year, I led a bipartisan, bicameral group of Georgia lawmakers in sending a letter to the FCC requesting an update on implementation of the Broadband Deployment Accuracy and Technological Availability Act (Pub. L. 116–130), which was signed into law last Congress. Additionally, we requested that they integrate data from the Georgia Broadband Map Program into their new mapping program.

Unfortunately, since Chairwoman Rosenworcel is not represented here today, I cannot ask her about the implementation of the DATA Act (Pub. L. 113–101). Madam Under Secretary, do your agencies rely on FCC maps to distribute broadband funds?

Ms. TORRES SMALL. Thank you so much, Congressman, for making high-speed internet a top priority and for your focus on mapping. It is a crucial part of how we need to coordinate across the Federal Government and, as you mentioned, with states that have had some of the most cutting-edge approaches to mapping.

When it comes to Rural Development, we are intimately involved in providing information for both NTIA's NBAM map, as well as the FCC's map that they are constructing. And we use NBAM to help as part of the process for identifying our service areas for our awards. We have multiple components of the process. So we use the maps for a desktop review, then the second part is allowing service providers to weigh in to say no, actually we cover this area, and here is the data to show that, and then we are on the ground—

Mr. ALLEN. How do you find these maps to be?

Ms. TORRES SMALL. For that I will refer to Acting Administrator McLean.

Mr. MCLEAN. Yes, thank you very much. Well, over time the maps have improved. The reference to Census block mapping didn't provide much granular data, so the mapping material that we have had historically and that we use now, they are informative, they are a starting point, but they are not dispositive for RUS's work. As the Under Secretary said, we have what is called a service area validation process where our applicants will proclaim to the world where they are going to propose service. We will open up a 45 day comment period where we will allow service providers to tell us what they are providing, and we will check that. We will verify that and, if necessary, we will send field staff out to the area to be able to double-check that.

Mr. ALLEN. Well, my home State of Georgia Broadband Map Program is the gold standard in the nation's broadband maps. It precisely maps out the availability of broadband services to every home and business in the state. Other states are following Georgia's lead in implementing similar programs. So we have the maps. We know the needs in Georgia. And of course, Madam Under Secretary, I believe you were in Georgia recently meeting with broadband providers, including my constituent, Steven Milner, with whom I have worked on many broadband rollout projects in my district. Could you provide us an update on how those meetings went and what your takeaway was? And I am out of time. You can submit that answer in writing. I would appreciate that. With that, Mr. Chairman, I yield back.

[The information referred to is located on p. 1530.]

The CHAIRMAN. Yes, thank you.

And now the gentlewoman from Illinois, Mrs. Bustos, who is also the Chair of the Subcommittee on General Farm Commodities and Risk Management, is recognized for 5 minutes.

Mrs. BUSTOS. All right. Thank you, Mr. Chairman.

I know that rural broadband is obviously a very important issue for everybody on this Committee. And I see it this way. Fortunately, Congress has been investing in programs to ReConnect. And so we have been able to deliver under the Under Secretary's leadership and under the Biden Administration these crucial investments. And let me just give you a quick example. We have \$14 million that went to Jo-Carroll Energy, which is a rural electric co-op in the Congressional district that I represent. They have been able to expand their fiber broadband and go into 3,000 additional households. That is a big deal where I am from. They are now able to serve on top of that ten educational facilities and a healthcare facility just with that funding. And so I know USDA recently announced \$1 billion for ReConnect round 4 that comes out of our bipartisan infrastructure law.

So, Under Secretary Torres Small, great to see you. Thank you for being here today. Can you talk about how this new round of the ReConnect Program is different from previous rounds? And in other words, what has changed?

Ms. TORRES SMALL. Thank you so much for that question. And we really are learning things in every stage of ReConnect. We are also trying to build to provide some consistency or at all possible

for our applicants, while applying lessons learned. So one of the places where we have seen a difference in terms of, well, the change from statute for round 4 of ReConnect is the service area. So the statute requires that—it used to require 90 percent being served. Now, it requires 50 percent unserved. And so that is a change that we have made pursuant to the statute.

That being said, Congress also included a set-aside for 90 percent unserved so we can continue to prioritize reaching the hardest-to-reach places. And so we are working hard to get out information about that change. A change that we made specifically was that we work to make sure that not only is their infrastructure in the ground, but that it is affordable. And so we worked to—in the previous round, there were extra points for participating in an FCC Affordability Connectivity Program. Almost everyone who was eligible to receive those points took advantage of it. So we went ahead and made it mandatory this next round, to work with the FCC Affordable Connectivity Program. And so what that means is that in areas where we are helping fund a service, people could get access with a \$30 plan for high-speed internet. And that can be truly transformative.

Mrs. BUSTOS. Yes, let me—because I know we just have a couple of minutes here, and I would like to get onto another topic. I know we are talking about rural broadband, but are you in a position where you can talk about the importance of rural connectivity as it pertains to rural cellular? I can talk about actually my own household, my neighbors, we have a district where we have access to broadband but not necessarily to cell service that allows us to have easy phone conversations on our cell lines. And, it gets in the way of emergency services, precision agriculture, and just household cell service. So wondering if there are activities currently underway at USDA Rural Development to help expand access to rural cell service, and if you can touch on that for our remaining minute and a half.

Ms. TORRES SMALL. I will speak very quickly and then turn it over to the Acting Administrator. The statute does limit—we can't take into account cellphone service when determining whether or not broadband exists. But one part of our priority points include wholesale broadband services, and that can mean building infrastructure that others could use. And so when it comes to building a cell phone tower that requires that backhaul of fiber to then connect to that tower, and so with wholesale broadband services, there is an ability to also invest in both the radio technology as well as cell phone service. Acting Administrator McLean?

Mr. MCLEAN. Yes, thank you very much. In addition, we do have loan authority to finance mobile wireless, and we do have loan authority to finance emergency communications and 911 access, but we don't have a grant program to match that. But the point is very, very well taken. Cellular dead zones are deadly zones when it comes to public safety and emergency communications.

Mrs. BUSTOS. Yes, they really are. My husband is the Sheriff of Rock Island County, which is a little more urban than some of the other counties I represent. And I know our sheriffs talk about these dead zones. And you think about when you need to communicate in a time where there is something tragic going on, you don't want

your deputies out there not being able to communicate with their radio operators or their other deputies. So, we can explore this a little bit more, but I am hoping that we can in the future and make this more accessible.

Thank you very much. I yield back.

The CHAIRMAN. The gentleman from Indiana, Mr. Baird, is now recognized for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman and Ranking Member, for holding this important hearing. As you know, and it has already been talked about here today, but precision agriculture really needs and utilizes broadband in addition to telehealth and telecommunication and education, so it is very important that we do this. And so I guess the thing that I would like to ask is, Madam Under Secretary, you did a great job explaining how USDA monitors the broadband deployment and to make sure that we have efficient and complete build-out. So can you explain to me or address how the general field representatives and how important they are to make sure that we get this build-out done efficiently and we have the right kind of information to help our local entities apply for some of these funds?

Ms. TORRES SMALL. Congressman Baird, thank you so much for that question. Our general field representatives are crucial, and they are a unique part of Rural Development. It is people living in the places they serve. Lately, I have had the chance to travel and do outreach to two communities that currently don't have high-speed internet. And when I have a general field representative there, they know the providers that are around the table. They know how to work with communities that—what they know is that they don't have high-speed internet, and they are trying to figure out what that next step is. And so that ability to help navigate these really high-tech, challenging, complicated issues is crucial. And they are working hard, whether it is trying to make sure that the environmental reviews are happening quickly, or whether it is going back and forth. And I was talking to a general field representative just the other day, he is really proud that there has been so many awards in his region, but now he has got to process all of those awards. And because we really care about efficiency, it is reimbursements, so that processing of the award is high touch. It takes a lot of energy. So it is a crucial component of who we are at Rural Development, and it is something that we need to continue to make sure it is a strong part of our identity.

Mr. BAIRD. I think that you just illustrated an important point. If those individuals really understand where the money can come from and the different sources and the requirements who are applying for those, I think it just makes it more efficient and extends your capabilities right out in the rural community. So I am glad that you have those field representatives, and I hope you can train more in case you need them for additional help.

One other area that I would like to mention, I know USDA—and I appreciate it—keeps a close watch on the funds and where they are going, yet I have heard from some of my people and recipients about the frustration in accessing their funds. In fact, sometimes their construction activity has been delayed because they couldn't get access to the funds they have been approved for. So what

changes can Congress or what can we do to better balance the need for robust oversight and yet at the same time make sure we can expedite the construction process?

Ms. TORRES SMALL. That is a great question and one that I would love to continue to work with you to try to resolve because it is a balance, right? How do we make sure that the money is being used effectively and efficiently, while also making it easy and quick for deployment? One of the changes we have made is allowing ISPs to purchase the materials before the environmental review is complete so that they can plan, especially with some of the challenges we are seeing there. But there is still work to do. And another change is in the environmental review process. Again, that coordination, that timing of when we need to be doing outreach, and then also working to make sure that we are communicating that quickly with the ISP.

Acting Administrator McLean, do you want to add anything?

Mr. McLEAN. No, thank you very much. And I appreciate the comments about the general field representatives. They are absolutely the foundation of our work. We had one of our GFRs say that it is not a job, it is a lifestyle. I mean, it is really rewarding to be able to see their work. Yes, environmental review is a challenge. And it is about capacity. It is about having enough staff to be able to process those procedures. And we have to be able to complete the environmental review before we can release funds and before construction can start under the statutes that we have to enforce, the Endangered Species Act, National Environmental Policy Act, and the Historic Preservation Act. And we value and respect those statutes, but we work very hard to be able to get the funds out as quickly as possible.

The CHAIRMAN. Thank you.

And now the gentleman from California, Mr. Carbajal, is recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. And thank you to all the witnesses and my friend, Under Secretary Torres Small for being here today.

Broadband access is required to participate in the modern economy. As such, we must make sure every single American has access to reliable high-speed internet. Broadband allows people to access education, healthcare, employment, the online marketplace, and much, much more. Congress has made significant investments over the last decade to expand broadband. Recently, the bipartisan infrastructure law provided \$65 billion in broadband funding. I am heartened to see the progress USDA and other agencies make as they continue to roll out this funding, and I look forward to working with you as we bring more communities online.

Under Secretary Torres Small, can you describe how USDA is doing outreach to communities who lack broadband access and help make them aware of funding opportunities. Within these communities, is the USDA able to provide technical assistance or are more resources needed?

Ms. TORRES SMALL. Thank you so much, Congressman Carbajal. It is wonderful to see you. And it is such a great question, this theme about technical assistance, and how do we make sure we are reaching communities that aren't the usual suspects who already

know how to navigate our programs. One of the things we are doing—and I recognize the irony in this—is webinars, so that way folks can—they don't have to travel to learn about it. And our Innovation Center has been very helpful in making sure we are providing really comprehensive training on those webinars. But you have to have high-speed internet to access that, so we also have our robust staff on the ground, over 450 offices across the United States and folks who are used to going out and traveling.

I just drove 4 hours to visit a Navajo chapter that had not received a ReConnect grant, and we paired them with someone nearby who had and had a conversation about what it was like to take that next step from we know we don't have high-speed internet, what do we do next? So being able to have validators who have navigated a tough process, be able to help walk through an applicant about future opportunities is a great way to do that. That takes time, that takes staff, that takes a lot of travel across really rural places and dirt roads. And that is why investing—that is why our GFRs are so crucial.

Mr. CARBAJAL. Thank you. I would encourage you to also look at natural facilitators that already exist or folks who interface with many of those underserved communities. There are already a lot of vehicles there that could be a win-win by partnering to multiply the education, the information that is being attempted to be disseminated.

Under Secretary, can you also elaborate on the successes of the Community Connect Grant Program and the Distance Learning and Telehealth Grant Program? Do you think these programs can be improved to benefit more people?

Ms. TORRES SMALL. Thank you so much for that. One quick thing on existing facilitators, it is such a crucial point. What it makes me think of is in our water environmental programs, our circuit riders, and then also the relationship we have with RCAP, so other people on the ground who have other relationships, they are trusted partners in the community.

When it comes to distance learning and telemedicine, it is a crucial part of the mix. Having the internet infrastructure on the ground or on the poles is one thing. You also have to have the technology to be able to use it. And one of the places I see that the most is in rural hospitals because you are able to reach people who then don't have to drive miles just to get the healthcare they need. And it also allows opportunities in terms of clinics to do a lot more preventative work. And when I think especially about obstetrics, like what does it mean to start your life in the rural community you want to call home and be able to have that prenatal care, the ability to go directly and provide service directly into a home through—a Distance Learning and Telemedicine Grant can be really powerful.

Acting Administrator McLean, do want to add anything there?

Mr. MCLEAN. Thank you very much. And one of the areas that we have observed growing interest in distance learning and telemedicine has been in telepsychology and teleconsultations and also treatment of addiction or prevention through prescription monitoring. So it is a very exciting technology, and you get better health

results in rural communities because you are able to connect using telemedicine.

Mr. CARBAJAL. Thank you. I also want to draw your attention to maybe an alternative point of view. We oftentimes think of reaching the home, but even if we could connect with one center in their community so they don't have to drive miles away, but they could go to a center that is technologically equipped for them to have those consultations, I would encourage you to look at that as a possibility.

Mr. Chairman, my time has expired.

The CHAIRMAN. The gentleman from Ohio, Mr. Balderson, is now recognized for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman. Thank you for being here today, Madam Under Secretary. It is good to see you again.

During your last visit to the Committee, I expressed my concerns regarding the significant changes to the Infrastructure Investment and Jobs Act made to the ReConnect Program's underserved threshold. As you know, the infrastructure bill only requires 50 percent of households to be underserved instead of 90 percent. Building on that, I am concerned that without using the FCC's maps, a significant amount of ReConnect funding could go to areas that are already considered served or even to areas that will be funded by the FCC's RDOF program or the NTIA's BEAD (Broadband Equity, Access, and Deployment) program. With this in mind, can you tell me specifically how USDA is going to prevent duplication in phase 4 of ReConnect?

Ms. TORRES SMALL. Thank you so much for that question. It is a crucial component, how do we make sure we are leveraging our resources as efficiently as possible? So in terms of—we are following the statute, right, that has a 50 percent unserved, but we are also making sure that we are getting the word out about the set-aside of non-match grant that goes to 90 percent unserved and so prioritizing reaching the most unserved through that means as well.

We talked earlier in this hearing about the importance of timing when it comes to different awards, and so we are working carefully in coordination to forecast when our windows will be open and identify—you mentioned RDOF, for example, what the timing is for when they will declare certain projects ready to authorize. And that is something we have done very intentionally in ReConnect round 4 is say when we will consider an RDOF award and when we will not. And so if it has been ready to authorize by a specific date, then we will not consider an area that is covered by an RDOF award.

Mr. BALDERSON. Thank you. My next question would be you may be aware that in a recent GAO report, ReConnect was identified as one of the 133 Federal programs administering broadband support—excuse me. With all of these new COVID-era programs how do you coordinate with the NTIA, the FCC, and other agencies to ensure ReConnect funds are not duplicated or overbuilding other programs?

Ms. TORRES SMALL. That is crucial to this work. And there are challenges. We talked about the silos and just folks being used to always doing one thing and knowing who to call within their agency, and we have to now change that so that we know who to call

across the agency. The MOUs are of course the foundation for that, but they cannot be the end of it. We have biweekly meetings to set up that regular cadence of communication, but also we are working hard to reach out to each other proactively whenever there is a sticky situation.

We have also worked to reach out for opportunities, too, so combining on webinars for outreach so we can provide information on both programs, sharing staff for review of applications. And to speak a little bit more specifically, I will turn it over to Acting Administrator McLean.

Mr. MCLEAN. Yes, thank you very much. The key is to sharing data in real time. We share our applicant data as well as our award data with our colleagues across the Federal agencies as soon as it is available. Coincidentally, this afternoon, I am having a meeting with my colleagues in NTIA, Treasury, and FCC, so we have regular coordination. And we do work on cases individual to de-conflict applications. None of the Federal agencies want to pay for the same thing twice. Now, there will be cases where we might not be able to de-conflict because we have to be true to our statutes. We are faithful to the laws that this Committee has endorsed, but to the extent we can work with our colleagues in other Federal agencies and eventually across state lines when the BEAD money goes through the states, we will engage fully and be transparent and open with all of our data.

Mr. BALDERSON. Thank you, sir. And thank you, Under Secretary.

I can't see my clock, Mr. Chairman, so I will yield back my time. Thank you.

The CHAIRMAN. All right. Thank you.

And the gentlewoman from Washington, Ms. Schrier, is now recognized for 5 minutes.

Ms. SCHRIER. Thank you, Mr. Chairman.

And welcome, again, to my friend, Under Secretary Torres Small. It is so good to see you again.

I would like to touch on a few issues with you quickly. As you know, my district in Washington State benefits greatly from the rural broadband programs authorized in the farm bill, and I am so happy that we can talk about them today because they are critical, as we have seen during pandemic. We also have a lot of players in Washington State. We have an excellent state broadband office. We have public utility districts who have invested heavily, local municipalities, private partners, and more. And I have heard from those entities but also from several my colleagues today about this concern about the USDA, NTIA, and the FCC all communicating to ensure there is no duplication around programs and that not only can these programs be utilized to their fullest extent, but also that they can be additive and really amplify each other's benefits. And so I was not going to ask a question about this but rather just emphasize what several of my colleagues have pointed out, that that coordination is critical.

I did have a question though about, in addition to the coordination, are there gaps or places where Congress can be helpful in aiding with the streamlining in the upcoming farm bill?

Ms. TORRES SMALL. Thank you so much, Congresswoman Schrier, for that. The coordination is crucial. And the requirement that we share data has been incredibly helpful. And as Acting Administrator McLean mentioned, noting that it is real time and making sure that data is really real time is really valuable. The other piece that we have learned in terms of timing is the announcements of our awards and when windows will be open and working to coordinate better there, so I think it is a place where we would like to have an open dialogue.

In addition, there are opportunities with the fact that we have different players in this space. There are different relationships. There are different people who are used to accessing those streams of funding. But ways that we can better learn from each other is something I am really interested in pursuing.

Acting Administrator McLean, do you have anything to add there?

Mr. MCLEAN. No, I think that was very well stated. In terms of the flexibility is very useful to us. We have multiple programs which we administer, sometimes with year-to-year changes in the requirements, and the ability to transfer funds, we were able to pull some IJA money forward to be able to fund out of round 3. That was a very useful tool. But we are limited to do future pulling forward money because they have different requirements. So that is something I think to bear in mind is the flexibility that the agencies have and the Department has to be able to move money to where it is needed most.

Ms. SCHRIER. Thank you. I think we will have to continue to work on this to make sure we get this right because it is such a big investment and so important in our districts.

Also, I know there have been some concerns about coordination around the ReConnect Program and specifically the middle mile infrastructure to ensure that the rural areas are getting the attention they need both in unserved areas and underserved areas, and having a coordinated approach with shared mapping and accurate mapping would help these efforts. So, Madam Under Secretary, in the time you have remaining, can you talk about how your office plans to incorporate the new FCC map that has been announced as you consider USDA programs?

Ms. TORRES SMALL. Thanks so much. So, as you know, we currently use the NTIA NBAM as part of our desktop review when we determine where service areas are and then of course, we allow ISPs to challenge that and then we, if necessary, get on the ground to determine that. But we are also supporting the FCC in creating their map, which NTIA will later rely on to distribute the BEAD money. So I have just made an announcement in multiple venues with ISPs because the deadline for their time to submit information for the creation of map was coming up, and I was just saying, please don't forget, this is why it is important and so leveraging our relationships to make sure that they are doing that. So that mapping collaboration is crucial.

You also mentioned middle mile, and this is absolutely true. I was just in a meeting with multiple rural electric—or telco cooperatives, and they were talking about, well, ReConnect doesn't fund middle mile. But sometimes if you create the service area in a way

where you are connecting two places, you can build-out where you otherwise wouldn't. That being said, there are places where you need middle mile and you can't ultimately reach a final house. And so we have been forecasting that to state agencies because—sorry.

The CHAIRMAN. Thank you. I am sorry. We are trying to get everybody in.

Ms. SCHRIER. Thank you.

The CHAIRMAN. Votes are going to be coming up quickly. We have a second panel. We want to accomplish it all.

Ms. SCHRIER. I yield back.

The CHAIRMAN. The gentleman from Kansas, Mr. Mann, is recognized for 5 minutes.

Mr. MANN. Thank you, Mr. Chairman. I will turn that down a little bit.

I represent the First District of Kansas, 63 primarily rural counties in the western central part of the state. In my part of the country, we greatly rely on broadband to connect our communities to one another and to the rest of the world with telehealth, a lot of things we talked about this morning, precision agriculture, and a plugin to global markets, which is what our producers are dealing with every single day.

So many Americans and Kansans are still unserved and underserved, and we should make sure our taxpayer dollars are being spent judiciously on existing programs and that the goals set by the USDA and/or the FCC must be realistic and be able to be met with by providers. What checks are in place to ensure that the USDA implements its programs as efficiently and cost-effectively as possible? And do you feel like we are stretching these dollars as far as we possibly can to reach as many people as we possibly can?

Ms. TORRES SMALL. It is so important. Because this is a historic investment, we have to make sure it goes in the right places. And Rural Development is unique in this work. We were talking earlier about that delicate balance of—because we are a reimbursement program. It is unlike other programs out there. We reimburse for existing expenses, and so that makes sure that we are applying it efficiently and that we are truly documenting that every house and address within that service area can be served. But it does mean you have to administer that award in a different way, and that is that is time intensive. So that is one of the balances were walking.

The other point you mentioned was what is realistic, right, in terms of the speed? I am guessing you might be thinking of in ReConnect round 3, we changed the threshold to 100 down, 20 up, which is higher than it was previously, and then the build-out to 100 megabytes per second symmetrical. We talked about some of the reasons why that is valuable, right, that upload speed so that rural people can be creators as well as users, and also for things like precision ag or smoke detection, being able to upload to the cloud.

We also found that it was desirable. We had more applications in ReConnect round 3 than in both other two rounds combined. So we are seeing ISPs really step up to this challenge, and it is exciting.

Mr. MANN. Great, thank you. Second question for you again, Madam Under Secretary. We have heard from numerous stake-

holders how difficult it is to provide broadband services. And, as you know, USDA, FCC, NTIA all have their own data mapping. And we talked about this a little bit earlier. And they don't necessarily follow the same collection methods. This is near and dear to me because when I was lieutenant governor of our state, the FCC produced a map that was inaccurate. We then had to go and partner with the Farm Bureau to challenge their bad work product and show them how it was inaccurate when they are the ones that produced the bad work product in the first place. Of course, we talked about this earlier; but, Congress has passed the Broadband DATA Act to help better simplify the information, require information sharing. How does RUS ensure that those communities are mapped correctly in the first place and that the data is integrated into the broader FCC maps? I know you talked about that a little bit earlier, but could you expand upon how do we do a better job of making sure that we have accurate maps in the first place?

Ms. TORRES SMALL. It is such a good question, and I would—it is two parts. It is making sure that the awards that we administer truly reach the people that need it and making sure that from those awards that truly reach those, that information gets to the maps because the maps are crucial in terms of deciding where you could create a plan or you could plan to serve in the future, right? It is the vision of what is possible. So we have a desktop review that right now uses NBAM as well as other mapping tools to identify whether or not the claimed service area is right. Then we allow internet service providers to challenge that. If they say, hey, actually, we serve that and then we wade through their challenges to see if they are providing the data to back that up. And then if there is still a conflict, we will go on the ground and prove it up. And then we send that information to NTIA for NBAM to continue to improve their mapping.

To talk about the fabric and the FCC, I will shift briefly over to Acting Administrator McLean.

Mr. MANN. Yes.

Mr. MCLEAN. I encouraged the trade associations and our borrowers to engage with the FCC on their mapping process to make sure that the data is accurate. And we are moving in the FCC's mapping initiative to what they call the challenge portion where there can be a dialogue back and forth between community service providers about where the service is to make that map as good as it can be. But again, at RUS we look at the best information that is available, but then we go further by providing opportunities for service providers to comment, we validate those comments, and then, if necessary, we will send people to the field to look.

The CHAIRMAN. The gentleman from California, Mr. Panetta, is recognized for 5 minutes.

Mr. PANETTA. Thank you, Mr. Chairman. I appreciate this opportunity to talk about such an important area with such an educated and intelligent witness as the Under Secretary. Thank you very much for being here, Under Secretary, again, as well as appreciate your visit out to the district recently as well.

Obviously, as you saw in my district on the Central Coast of California, access to reliable broadband internet is an absolute necessity for our students, for our farmworkers, for our patients, for

our businesses, especially in districts like mine but also districts all across rural America. And I think, unfortunately, you have seen a lot of challenges.

Now, fortunately, this Congress and your Administration has begun to take action. The American Rescue Plan funded localities and local ISPs with projects for broadband in rural communities. We created the Emergency Broadband Benefit, now the Affordable Connectivity Program to subsidize the cost of service for families. And most notably, we passed the bipartisan Infrastructure Investment and Jobs Act, which is going to make a huge investment in broadband, including \$42.5 billion just in broadband infrastructure.

Now, there are issues, though, in getting that funding to rural communities, as you have heard about and as you know well about. And one of the main issues that really complicates things is that there are over a dozen Federal definitions of *rural*. This becomes an issue when these definitions are also used to distribute these types of resources. As you heard my colleague Ms. Schrier talk about the ReConnect Program as one of those programs that uses the *rural* definition to determine eligibility, but that is kind of difficult in districts like mine because what we have seen is that none of those Federal dollars that we continue to fight for gets down into our communities, especially my community, which, as you know, is a rural community. And that has got to change. And hopefully looking ahead to the next farm bill, we can think carefully about standardizing eligibility for Rural Development programs in a way that is more inclusive for the needs of rural communities like yours and mine.

There is obviously frustration, especially at the local level, because sometimes they are counted as rural, sometimes they are counted as non-rural. And the complexity of those definitions can lead to wasted time for our local leaders who are seeking very thoroughly in checking the boxes, filling out the applications, funds for these types of programs. What is the USDA doing to address this issue that is very frustrating for all of us at all levels? And what can Congress start to think about in looking at the 2023 Farm Bill to bring clarity to these types of issues when it comes to the definitions of *rural*?

Ms. TORRES SMALL. That is such a good question. And one of my favorite parts of this job is getting to see the whole—what *rural* looks like in different places all across the country. And it is very different. It is very diverse. And our regulations and statutes don't always acknowledge that diversity across rural America.

As we have conversations about how we make it simpler to navigate, but also whether we change the rules of eligibility for what *rural* is, and we are happy to provide technical assistance with that, we have also got to recognize that changes in eligibility would also impact who is applying for the loans and grants and that the vast majority of our programs are oversubscribed. So conversations about eligibility also mean who is competing for already limited funds.

But it is a huge need, and we see it. I remember when I was a staffer for Senator Udall and we were trying to help out a rural place, we got this rubric of all of Rural Development's programs. And it is, which one—are you rural in this one *versus* this one

versus this one, right? And it can be hard, especially if you have a volunteer mayor or not the resources.

So the other way we are trying to address this is through technical assistance and navigators. So I think we have to have a dual approach here, which is advancing with what we have right now and making sure that we help navigate the complex programs, but then also trying to simplify them as much as possible.

Mr. PANETTA. And then in our role coming up here in the farm bill, is there—I mean, besides continuing these types of conversations, is there anything that we should be tracking in your expertise?

Ms. TORRES SMALL. For that, the big thing is, as we consider eligibility, what does that mean for oversubscribed programs? In addition, I will turn it over to Acting Administrator McLean if you have anything else to add.

Mr. MCLEAN. Yes. And I think what is *rural* is almost a metaphysical kind of question because—

Mr. PANETTA. Please don't respond that way to my local mayors.

Mr. MCLEAN. But we look at the statutes that Congress enacts as resource allocation decisions, and they direct us in those populations.

The CHAIRMAN. Unfortunately, the gentleman's time has expired. Now, the gentlelady from Minnesota, Mrs. Fischbach, is recognized for 5 minutes.

Mrs. FISCHBACH. Thank you, Mr. Chairman. I appreciate the opportunity. And thank you for being with us today, Madam Under Secretary. And I just got a question. The FCC recently rejected long form applications for the biggest winners of the agency's recent RDOF program round. Numerous areas in my district have held large tracts of Census blocks that were initially approved for build-out under the RDOF program that were later rejected. But Todd County in my district in particular had broad swaths of areas sectioned off for build-out that many months later are now back to square one due to the recent announcement. Can you speak to the importance of properly vetting applicants to ensure that they can deliver on the promises that they make while applying for taxpayer funding?

Ms. TORRES SMALL. Thank you so much, Congresswoman. And, this is some of the timing challenges that we were talking about before in terms of coordination, but it also is an opportunity, right? As you mentioned, we have to make sure that the investments that we make truly can be delivered. And we certainly have seen that the RDOF awards from the previous Administration, there are multiple steps. And that last step of—or the next step of being ready to authorize is a crucial one to make sure that a promise is truly deliverable in terms of the time frame that is allowed within the RDOF component.

The way Rural Development does it is by being a reimbursement-based service. So as they are implementing, that is when they receive the award. And again, there is a balance there to make sure that it is as easy to administer as possible and as unburdensome as possible for the recipient. But that is how we currently navigate that, making sure that a recipient is able to deliver on their promises. We also have a 5 year build-out, which I think

is a realistic build-out time that also recognizes the urgency of the situation.

Mrs. FISCHBACH. And thank you for that answer. And for rural areas, including Todd County and many other counties in my area, this broadband development is necessary for the modernization and development of their community, and it helps bring families back to the areas, it helps attract businesses, it helps farms create efficiency in their operation, and it really helps spur infrastructure development. Broadband development, in essence, is about building strong rural communities.

And I am sorry about the buzzing.

Can communities concurrently be eligible for USDA assistance under the ReConnect Program while a long form RDOF application is pending?

Ms. TORRES SMALL. That is a really good question. And this is again the timing piece that we were talking about earlier. So recognizing that RDOF awards have multiple stages, including ready to authorize, and that is the step that we have paid the most attention to. The timing for the ReConnect round 3 took some coordination in terms of figuring out how to disburse those awards. For ReConnect 4, we have been really clear. There is a lesson learned there, and specifically said if a project was not declared ready to authorize by a specific date, we would consider those areas.

For any additional information, I will give it to Acting Administrator McLean.

Mr. MCLEAN. Yes, I mean, that is exactly the point is where do we draw the line and we are drawing the line on the opening of the application window. If you are ready to authorize, you are taken care of by RDOF, but we don't want to pull all those territories off of the map for opportunities. We also make our applicants commit, that if they are an RDOF recipient and an RUS recipient, that we don't pay for the same thing twice. We can level up those RDOF awards, and we work carefully, again, to de-conflict. But, I would encourage those communities to apply to round 4 because I think it is an extraordinary opportunity.

Mrs. FISCHBACH. All right. Well, thank you. And maybe we will follow up with more specifics with you at a later time. But thank you both for your perspectives, and there is certainly information and lessons to be learned from that. So thank you very much.

And with that, I yield back, Mr. Chairman.

The CHAIRMAN. The gentleman from Georgia, Mr. Bishop, is recognized for 5 minutes.

Mr. BISHOP. Thank you, Mr. Chairman. Thank you for being here today, Under Secretary, and for the Department's recent investments in both rural healthcare, as well as the new round for ReConnect funding.

We have heard of issues with the system for management award or the general application intake system. What improvements has the Department made to streamline and improve the application intake and the review of applications to get resources to communities in a timely manner? I know that Ms. Pingree had asked about staffing needs earlier, and I think that she was cut off in that answer, but if you could address that with also the additional resources? What changes have been made in personnel, presumably

staffing, or what changes do you plan to make to address the increased workload? And finally, we have heard some aspects of the application process that can be burdensome, for example, of the submission of all of the financial documents for very large providers, which overburdens them. What changes have been made, what changes are being considered to address these burdens or the issues that we have heard from our applicants?

Ms. TORRES SMALL. Thank you so much, Congressman Bishop. It is wonderful to see you, and I really appreciate your in-depth questions. When it comes to the online platform, ReConnect was established in 2019, and we have created an online platform from there that continues to be improved. There were some bugs at certain points that we had to work through, and so we are working through that. In fact, we adjusted the schedule so that there would be reliability in terms of the application portal for this current round that is open. So we feel positive about where we are now. And in talking with recent applicants, we got good feedback on the maps that are integrated into the online portal. They said it was actually much easier than in previous rounds in terms of identifying where their proposed internet service area would be. So we are making improvements, and there are still improvements to be made.

Do you have anything you want to add in terms of the online portal?

Mr. MCLEAN. No, I just want to say that this highlights where those administrative dollars have been so valuable to us because we have been able to create the most modern of IT systems with the ReConnect funding. And we walk through the applicants step by step, and it makes it difficult to proceed to the next step if you don't do the first step right. And so that reduces errors.

And I am very, very proud to report that between rounds 3 and rounds 4—I mean, rounds 2 and rounds 3 of our ReConnect awards, we experienced a 39 percent drop in review times and a 33 percent drop in failed or incomplete applications, in part because of that outreach that we have done and trying to create a system that prevents you from making mistakes and submitting an incomplete application. So we are making progress. We are learning, as the Under Secretary said, from each one of these experiences and trying to apply in each rounds continuous process improvement.

Mr. BISHOP. Are you increasing your staffing?

Ms. TORRES SMALL. Yes. So again, to the administrative funds that were included in the bipartisan infrastructure law, that made a huge difference because we were able to both bring on contractors immediately to help address some of the environmental review challenges and opportunities and then also think longer-term about how we bring people on. And being able to do both at the same time is really crucial. We have a large portion of our workforce, 38 percent, that is eligible to retire, and so we have to think about succession plans. How do we make sure we are bringing people on who can learn from these experts in the field—

Mr. BISHOP. Let me ask you—excuse me. My time is expiring—what Congress can do, the authorizing Committee and the Appro-

priations Committee, to help continue to improve the program moving forward?

Ms. TORRES SMALL. Continued support of our robust staff in Rural Development that includes state and area offices, as well as the support in the national office and headquarters is crucial, and help in hiring issues.

Mr. BISHOP. Thank you very much for that succinct answer. My time has expired, and so I yield back, Mr. Chairman, 16 seconds.

The CHAIRMAN. The gentleman from Iowa, Mr. Feenstra, is recognized for 5 minutes.

Mr. FEENSTRA. Well, thank you, Chairman Scott and Ranking Member Thompson. And, Under Secretary Torres Small, thank you so much for your testimony. Thank you for being here. Again, I greatly appreciate it. I remember your comments from the last time you were here, and I am very grateful that you took the time out to be here again.

I think just listening to your testimony and your questions and answers, broadband is largely technical, and there are a lot of technical issues that happen. There are also innovations that are happening in this technology space. My district is the second largest rural district in the country. It is very, very big, very vast, and a lot of small communities and so forth. And when you talk about telehealth, this is very critical. Also, precision farming is really gaining a lot of ground. So how do we look at the next farm bill and what innovations can we do or would you say, hey, we should address as we move forward in this sector?

Ms. TORRES SMALL. That is such a great question because to me it speaks to the need to connect high-speed connectivity to the equipment that we use to leverage that. I would also add that it is an opportunity to invest more in place-based work because as we look at what are the unique factors of a rural place that make it the perfect place for precision ag or the perfect place for this type of manufacturing that requires this connectivity, it needs to be based in the community where it exists. And so looking at—place-based work requires strong technical assistance, requires strong presence in the field, and I think those are some of the opportunities we have to collaborate on in the future.

Mr. FEENSTRA. Do you see, as we move forward with the different grants that are out there, and we talked about a lot of them, ReConnect and stuff, that we should put a bigger or a larger emphasis on—you talked about upload and download speeds earlier. Do you think that we should put more emphasis on that because we just see that is the future? My great fear is, is that we are putting things, whether it be fiber in the ground and stuff like that, that that could be problematic, and it could be, I mean, on upload and download speeds, if we look 5 years out and stuff like that. I mean, what are your thoughts there?

Ms. TORRES SMALL. Yes, future proofing is really hard with an emerging technology, right? We have to kind of guess where the puck is going. That is why we have been very intentional about the 100 up, 100 down symmetrical speed. But we also need to have an open dialogue about technologies and about necessary speeds. The thing that is helpful when it comes to—we are technology neutral, but when it comes to fiber specifically is that you can build upon

it. Different technologies can often leverage on it. But we need to continue to have a dialogue there.

Mr. FEENSTRA. So just switching lanes just a little bit. So we have a land-grant university in my district, Iowa State University, that does great outreach, extension outreach and things like that. Is there an avenue that we could promote or push programs or the agenda through extension, through land-grant universities, and things like that?

Ms. TORRES SMALL. Absolutely. There are a few things that immediately come to mind in terms of the Swiss Army knife that is all the programs that Rural Development has. The Rural Innovation Stronger Economies Program is a really exciting one for how we integrate education and workforce opportunities with outreach in a specific community.

Also, I think in terms of working with land-grant institutions, I think there are always opportunities for them to participate in or to apply for Community Facilities Grants and Loans, for example, as well as the Distance Learning and Telemedicine.

Mr. FEENSTRA. Yes, I would agree. I mean, there are a lot of things that we can do there. I have one final question. And I am not sure if you know this or not. So in March 23, 2020 obviously, we passed the Broadband DATA Act, and there was obviously, we had to create the maps. You talked about the maps earlier. Do you have any sense of when those maps will be completed? There is a lot of discussion out there right now and everybody sort of like I would love to know the maps. And do you have any idea on that?

Ms. TORRES SMALL. The information I have on it is that the window for when the ISPs had to provide information to the FCC ended earlier this month, I think September 2 was the date, and we were helping push to get that done. The next phase is a really important phase where internet service providers can challenge that information so that we can ground truth it a bit. And that is the information that I have in terms of where they are at.

Mr. FEENSTRA. Okay. Well, Under Secretary, I appreciate your time and thank you for your input, I am very grateful. Thank you again. I yield back.

The CHAIRMAN. The gentlewoman from Iowa, Mrs. Axne, is now recognized for 5 minutes.

Mrs. AXNE. Thank you, Mr. Chairman. And thank you, Under Secretary Torres Small. We are so thrilled to have you here. And thank you, Mr. McLean, for being here. Your work is greatly needed in states like Iowa. You just heard from my colleague, and of course this is very important for our state, so thank you for all the work that you do.

And, Under Secretary, thanks for coming to Iowa. I know you know our state and how important it is to make sure that we have that last mile connected. I have been working on this issue since I was in state government under three different governors, and we are trying to close in, in Iowa, so I am going to ask you a little bit about the mapping, how we are working on that nationally, but also how we are coordinating with other states because so many of our states have been working on these things for so long, but we seem to just have the little bits and pieces we can't figure out. And that is the part that really is where the rubber hits the road.

So Representative Feenstra just brought up mapping. And I know we are making some progress there. You mentioned that. Because this week the FCC is finally taking challenges to the improved maps Congress asked them to do under the Broadband DATA Act, and those maps should help. And the challenge process is key to getting community input on where they do and don't have service, of course. But one of the issues I have heard about is there is just a wide range of different maps that we are using for different programs. And I know those FCC maps aren't complete yet, but once those challenge processes are done that you just mentioned, how are you at the USDA planning to work with the FCC and the NTIA to make sure all these Federal programs are aligned, that we are using the best possible information, and we are working together to target that funding?

Ms. TORRES SMALL. That is such a great question. And it is a challenge when it comes to the different maps and making sure that we are staying on track, that we are using the best thing we have right now as we try to create the next best thing. And that is part of what we are doing when it comes to Rural Development, but right now we use NBAM, which provides a lot of information and incorporates a lot of information from state-based maps, for example, for that desktop review. But the way that we are also working to make it better is when we get better information from the challenge process that we have or the on-the-ground testing that we have that goes back into that map to improve it for the future.

We anticipate, as FCC develops its map, recognizing that that challenge process is really crucial, and there will be information that has been gleaned from NBAM to inform that challenge process, that we will continue to collaborate to provide more information to improve all of the mapping resources that we have.

I will go ahead and pass it to Acting Administrator McLean.

Mr. MCLEAN. Yes, thank you. [inaudible].

Mrs. AXNE. Well, thank you for that. And I couldn't agree with you more because those telcos have done a great job. And my goodness, they are consistently upgrading services to ensure that their rural customers get exactly what other folks are getting. So I am glad to hear this is being worked on. We absolutely need to make that happen.

Let's move to the state. As you know, in Iowa and many other states, but we got \$200 million of the American Rescue Plan to use that funding for broadband expansion in the state. The money is going out now. We are starting to work on that, right? I know the state is going to be getting even more money from the infrastructure law. So we have funding, it is coming, and we are going to make this last step happen.

In light of that, though, we talked about the Federal coordination. What is happening to coordinate with the states and the telcos and everything that we have in a great state like Iowa?

Ms. TORRES SMALL. That coordination is crucial. I have been at a state broadband conversation in Alabama talking to state legislators. We have been doing outreach specifically to state legislators as they think about how they create their programs, specifically talking about what ReConnect does so we can look at ways that they could complement it. And one of the big things that they have

talked about is middle mile because ReConnect doesn't specifically do that.

We have learned, too. A state broadband agency contacted us, and the first time they contacted us, they had a little bit of trouble. Finally, we were connected thanks to Congress, to their Representative. And through that, we realized, oh, we also have to do outreach to broadband agencies. And so now we are doing trainings with broadband agencies. So it is a learning process, but it has gotten much better.

Mr. MCLEAN. Thank you. And I would encourage the state agencies to use the data that we put out. We try to be as transparent as possible. All of our applications through the service area validation process are publicly available, so they are seen, they are open. And then all of our awards are well-known, so that is contributing to that information. We would look forward to working with the states to make sure that we can coordinate our programs together.

Mrs. AXNE. Thank you.

The CHAIRMAN. The gentlelady from Florida, Mrs. Cammack, is now recognized for 5 minutes.

Mrs. CAMMACK. Well, thank you, Mr. Chairman. And thank you to all of our witnesses and the Ranking Member for hosting this very, very important hearing today. I feel like this is one of the areas where we can come together as Republicans and Democrats and really work to deploy this critical broadband across America.

So I will just jump right in to a series of questions here. Madam Under Secretary, we have heard from numerous stakeholders about how difficult it is to provide broadband service to areas when mapping and data accuracy are inefficient and insufficient. As you know, USDA, FCC, and NTIA all do their own data mapping and do not necessarily follow the same collection methods. The same could be said for the states as well. Congress has passed legislation, including the Broadband DATA Act, to help better simplify this information and require information sharing. How does RUS ensure that these communities are mapped correctly and that the data is integrated into the broader FCC maps?

Ms. TORRES SMALL. Thank you very much for that question. We are a ready helper in this work. So although we have a separate process for validating our awards to ensure that for our mandate that area of service can truly connect to each address within them, we also are working to make sure that we are getting that information to NTIA and FCC. One of the ways that we are doing that is we have the desktop review of NBAM, and as we get information about the accuracy of that, we send it back directly to them, so it is real-time updates.

We are also working hard to make sure that the service providers are helping strengthen those maps, too, so for the FCC map that is the fulfillment of the legislation you mentioned, we were out on the road, the Acting Administrator and I, reaching out to all of our contacts, all of the ISPs saying, don't forget the deadline, the deadline is coming up. And now that we are in that challenge part of the phase, that is crucial because that is how you ground truth, those claims about service. And so we are getting out the word again about the importance of making those challenges. So we will continue to work carefully and continue to provide feedback about

what we are seeing on the ground to strengthen mapping writ large.

Mrs. CAMMACK. Well, and as a follow-up to that, the State of Florida, for example, has their own mapping initiative underway. How is the Federal Government working to pair up and match up with these maps that the states are producing, as well as private providers, and what are some of the other issues that you may have or concerns or challenges in linking the USDA broadband programs with other agencies like FCC and NTIA and these state maps? And how is this slowing down the USDA's current process in administering broadband funding?

Ms. TORRES SMALL. So I don't want to overstep our role at Rural Development when it comes to the inputs for the maps. But I will state that the work, for example, that has happened in Georgia for mapping that has really showed a great improvement in terms of knowing what is on the ground has helped inform the Federal work that is being done now for mapping.

When it comes to Rural Development specifically, I think we have been able to leverage the multiple types of information that we have really well because we have that desktop review that utilizes all of that information. But we also just don't take that for granted. We allow folks to challenge it. And then, if it is necessary, we ground truth it as well. That can be a long process, so I suppose in the future if information was perfect, we could shorten that process. But until then, it is really important. And frankly, we don't always ground truth if we can resolve the information from the get-go, and that has allowed us to be more efficient. But that being said, our priority is having that right information, and so when there is a conflict, we spend that extra time to make sure we are delivering the money as efficiently as possible.

Mrs. CAMMACK. So, to that point, and this will be my final follow-up because I am running short on time, I hear continuously from various stakeholders, and we have heard in past hearings that the lengthy process, the approval process for broadband loan applicants, it is too long. So how long is it taking on average for broadband funding to get out the door once the application window closes? And what can we do to expedite those funds getting out the door?

Ms. TORRES SMALL. This is the balance that we have been talking about. So we have a 5 year build-out, and that is the main—and just to answer your question quickly, the main thing is that ReConnect has a 5 year build-out. But we reimburse for expenses so that—

[The information referred to is located on p. 1530.]

The CHAIRMAN. Yes, if you can follow up, that is a good question, with Mrs. Cammack in writing.

And now the gentleman from Arizona, Mr. O'Halleran, for 5 minutes.

Mr. O'HALLERAN. Thank you, Mr. Chairman and Ranking Member Thompson, for hosting today's hearing on rural broadband. I want to also thank Under Secretary Torres Small and the witnesses for being here today.

First of all, I would like to start off by giving a special thanks to the Under Secretary for her recent visit out to the district. We

really enjoyed having you out there. I am glad we share the same goal of 100 percent connectivity that all Americans, no matter their ZIP Code, deserve high-quality and reliable broadband. Connectivity ensures access to essential services, making it easier for patients to receive the care they need, students to participate in online learning, and small businesses to compete in the increasingly digital and global marketplace.

Broadband is essential for rural communities to thrive in the modern economy, which is why it is so urgent that we bring broadband to the hardest-to-reach and underserved areas. And Re-Connect has been a successful program, and we look forward to more of that.

I want to go back, though, to some of the issues. We have been working on mapping now, went through the whole process of getting it moving along a few years ago. And now we are at a point in time when we—the last number of Members have identified mapping as a continuing issue. I am very concerned that we have an enforcement mechanism to not go back to the times when we didn't have mapping kept up to date.

I also have a big concern that the agencies and how they are coordinating this process are going to do that. And the ground truthing piece of this, we can't move ahead unless we have enough availability to go out into that field and identify clearly that this is what is happening and enforce the companies to be able to do this in an appropriate way so we don't go through this time and time and time again.

So, Under Secretary, could you comment on that, please?

Ms. TORRES SMALL. Thank you so much, Congressman. It is a pleasure to see you. And thank you for your advocacy for underserved areas. You represent some of the most rural places in the country, and I know that ground truthing is exceptionally important in the places that you serve. That is why Rural Development's field structure is so crucial. I love how many times we said GFR, or general field representative, in this hearing because they are the folks who are making sure that the maps are accurate and that we are truly reaching the people who don't have access to high-speed internet right now, the people in the farthest-flung places across our country.

So continuing to invest in that structure is crucial. The administrative funds as part of the bipartisan infrastructure law was crucial for that. And it provides that accountability piece that you mentioned, Congressman, about making sure that the maps continue to be updated and are reflecting the reality on the ground.

Mr. O'HALLERAN. Thank you, Under Secretary. A follow-up to that, we know that it didn't work in the past. What have we learned from that? And do you have the personnel to be able to address these issues and the coordination with the FCC and others to be able to overcome the mistakes of the past?

Ms. TORRES SMALL. I think we have all learned that Census blocks aren't the accurate description of the reality. And so having people on the ground, being able to verify when necessary, is really valuable.

Staffing continues to be a challenge for Rural Development, both in terms of the hiring process, in terms of the funding for staffing,

and then also in terms of finding qualified people. Now that there are so many people working in high-speed internet, it is a competitive field, and so that is a challenge as well. So those are the lessons that we are learning and the challenges that we are trying to navigate to continue to be better at reaching the hardest-to-reach places.

Mr. O'HALLERAN. Thank you very much. I also want to emphasize the importance of outreach to our local communities. You mentioned that a little bit. And I know you have stressed that time and time again. That is why you have been out in the field so much. But the underlying aspects of this are real. And people right now—we, as Congress, should be able to be out there all the time, making sure we are educating the public as much as possible. But what type of programs can we anticipate on a large scale for the public to be able to understand not only the programs but the timing mechanisms and all the other planning that is going to go into that?

Ms. TORRES SMALL. The outreach is crucial. That is why President Biden's Rural Partners Network is really exciting, focusing efforts in places that need it most.

Mr. O'HALLERAN. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. Could you please respond in writing? The gentleman's time is up, and we have a hard stop with votes coming.

[The information referred to is located on p. 1530.]

The CHAIRMAN. The gentleman from Florida, Mr. Lawson, is now recognized for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman, for you and Ranking Member Thompson for having this hearing, Under Secretary Torres Small, for joining us today. I appreciate your staff working diligently with our office on a number of Rural Development projects, and I look forward to hosting you in the district real soon.

Under Secretary, on September the 6th, the winner for the fourth round ReConnect funding opened for grant application submission until November 2. Once this round of ReConnect funding closes, how long do you expect it to take for USDA to review and then award grant funding for applications?

Ms. TORRES SMALL. Thank you so much for that question and for your advocacy for rural America. I really appreciate the chance to get to work with you.

When it comes to the awards process for ReConnect, we are making great strides in terms of getting awards out as quickly as possible. And you can look at ReConnect 3 as an example of that. We are releasing awards on a rolling basis as quickly as we can so that projects can start running. And that is why we are releasing that information in tranches. Also, we have been able to get out money quicker because we intend to make awards with the bipartisan infrastructure law through ReConnect this year, this fall, which is very exciting.

When it comes to ReConnect round 4, we anticipate having that same track of releasing those awards as soon as we have. Now, we spent a lot of time talking about this three-step process where we have the desktop review of an area in terms of eligibility, then it is the challenge process, and then, if necessary, the ground truthing. That does take some time, and that is why being able to

announce projects on a rolling basis is a helpful way to let folks know as quickly as possible when an award has been made.

Acting Administrator McLean, do you want to add anything to that?

Mr. MCLEAN. Yes, thank you. And, of course, to be very honest, we will know once we get the application window closed as to how many applications we receive because that is a big driver of how long it takes to be able to go through the applications. As the Under Secretary mentioned earlier, round 3 of ReConnect attracted more applications than round 1 and round 2 combined. And so it was a big task, but yet we were able to accelerate our record of approval and our pace of approval. And we look forward to replicating that for round 4.

Mr. LAWSON. Well, that is really great news when you talk about round 3, what is really happening, so that means the word is getting out. And so I think that my next question will be with over a dozen agencies in the program charged with program development and interagency communication it is essential, how did the USDA—what are they doing to enhance communication coordination with the different programs and agencies?

Ms. TORRES SMALL. Yes, coordination with this many agencies and this level of unprecedented investment just has to be a way of life. And so that means reflecting on those MOUs and making sure they are integrated into all of the work that we do, whether that is talking about timing for getting out our programs, whether that is navigating awards and service areas, or whether that is navigating how we do technical assistance, for example, with NTIA's upcoming investment in technical assistance. It is also a chance to learn from each other, and that is what we are learning on the ground as well, using each other's networks to reach new partners and also each other's expertise to better administer our programs.

Mr. LAWSON. Okay, my colleague Mr. O'Halleran was talking about some of the mapping, and so I just wanted to say how will USDA Rural Development use the new maps to better allocate Federal funds in order to limit over-building and ensure connectivity for all rural residents?

Ms. TORRES SMALL. For that, I will allow my Acting Administrator to respond.

Mr. MCLEAN. Yes, well, thank you very much. I think our highest priority is—and our scoring matrix focuses our resources on those areas that need it the most. And that is where we are putting a great deal of energy and outreach. And I think that this round of funding has some of the most advantageous scoring criteria for underserved areas, and we are looking forward to a robust response in round 4.

Mr. LAWSON. Okay, thank you very much. Great to see you guys again.

And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you very much. And, Under Secretary Torres Small, thank you. And, Acting Administrator McLean, thank you for joining us today. And having concluded all our questions for the first panel, you are now excused. And the Committee will take a brief 2 minute recess here to allow our first panel to

leave and our second panel of witnesses to take their seats. Thank you.

[Recess.]

The CHAIRMAN. The Committee will come to order. And without objection, question time for Members for our second round will be 3 minutes to allow us to get to as many Members as possible before votes are called. We have a hard stop when votes are called on the floor, and we appreciate your cooperation.

Let me introduce our first witness for our second panel. And this is Ms. B. Lynn Follansbee—I got that right, thank you—who is the Vice President of Strategic Initiatives and Partnerships for USTelecom.

And our second witness is Hon. Tarryl Clark, who is the First District Commissioner in Stearns County, Minnesota. And she is testifying today on behalf of the National Association of Counties.

And our third and final witness for this panel is Mr. Garrett Hawkins, who is the President of the Missouri Farm Bureau and is testifying on behalf of the American Farm Bureau Federation.

Welcome to all of our witnesses. And you will each be recognized for your 5 minutes, and the timer should be visible to you. Once the yellow button comes on, that is caution. You will have a minute left and will count down from the 3 minutes, at which point your time will have expired.

So let us get started. Ms. Follansbee, please begin when you are ready.

**STATEMENT OF B. LYNN FOLLANSBEE, J.D., VICE PRESIDENT
STRATEGIC INITIATIVES AND PARTNERSHIPS, USTELECOM,
WASHINGTON, D.C.**

Ms. FOLLANSBEE. Chairman Scott, Ranking Member Thompson, and other distinguished Members of the Committee, thank you for the opportunity to testify today. My name is Lynn Follansbee, and I am Vice President of Strategic Initiatives and Partnerships for USTelecom, the national trade association representing network providers, innovators, suppliers, and manufacturers committed to connecting the world through the power of broadband. Our diverse membership ranges from large publicly traded corporations to local regional companies and cooperatives.

The COVID-19 pandemic clearly illustrated that high-speed broadband is the cornerstone of American life, connecting people to education, healthcare, employment, and virtually every aspect of our daily lives, while also ensuring our nation's economic security. USTelecom members actively participate in all Federal programs that support the deployment of broadband, including the Rural Utilities Service's ReConnect Program. We applaud the Committee for holding today's hearing. This is an important discussion as we look closely to how items adopted as part of the 2018 Farm Bill have impacted the deployment of rural broadband. It is also important to review how the U.S. Department of Agriculture works with other Federal agencies towards achieving one of our nation's top priorities, closing the digital divide.

In order to do this interagency coordination among all Federal agencies that touch the broadband space is an absolute necessity. The Infrastructure Investment and Jobs Act programs provide a

significant amount of money for broadband deployment, and there is a clear need for close coordination across all agencies involved.

USTelecom recommends that policymakers require early reporting by states that administer broadband funding programs, particularly those funded by NTIA, and that data should be included in the FCC's broadband data collection maps. Similarly, agencies such as RUS should be sharing with the FCC their data about where they have provided grants and loans so that all agencies have complete information about all currently funded broadband projects, whether completed or not in order to avoid duplication and avoid government waste.

USDA and other agencies must also align on the current definition of *broadband*. Having different deployment programs utilizing different speed minimums creates an inconsistent standard for broadband deployment. In the same vein, USDA must work directly with all Federal agencies to ensure consistent requirements related to supply chain, including the application of Buy America requirements.

In addition to coordinating with other agencies, there are improvements RUS should be making to its ReConnect Program to create clear processes so there is greater transparency. Despite some changes, there also continue to be rules in place that limit participation by some applicants. USTelecom urges RUS to consider alternatives to its current rules on liens affecting collateral. Aligning with other Federal broadband programs and requiring a letter of credit would enable more carriers to participate, particularly larger companies who serve the most rural and remote customers in the nation.

Although the ReConnect Program has admittedly evolved and had multiple successful rounds of its grant program, curiously, the ReConnect Program is still operating as a pilot program. In the upcoming farm bill, Congress should consider whether it intends to formalize the program, and if so, consider the program's current role in conjunction with available funds at other agencies.

I also have the privilege of serving as the Vice Chair of the Mapping Working Group for the FCC's Precision Ag Task Force, which provides advice and recommendations to the FCC and USDA on how to assess and advance deployment of broadband on unserved and underserved agricultural lands. The task force working groups have done extensive research and developed recommendations that address current challenges. I applaud this Committee for its role in the creation of the Precision Ag Task Force as part of the 2018 Farm Bill. The task force is in its second 2 year term and has already made some excellent recommendations, which will no doubt have an impact on the advancement of precision ag.

Key recommendations adopted thus far include compiling the FCC's broadband data collection effort with NASS, or the National Agricultural Statistical Service cultivated land data, so farmers can know where there is both fixed and mobile providers serving the ag and rural domains, including Native American ag lands.

Increase incentives and subsidies at the local and national level to substantially increase connectivity, enhance both download and upload high-speed standards to meet the applications used in precision ag, improve collaboration between Federal agencies, and re-

move regulatory barriers and align their existing and individual file management, increase digital access to education and training for individuals engaged in farming, and place a priority on developing precision ag cybersecurity. These thoughtful and detailed recommendations reflect only a sliver of the hard work volunteer members of the task force are doing on a weekly basis.

USTelecom and our members stand ready to work with the Committee, Congress, and Administration to connect all communities once and for all and close the digital divide.

[The prepared statement of Ms. Follansbee follows:]

PREPARED STATEMENT OF B. LYNN FOLLANSBEE, J.D., VICE PRESIDENT STRATEGIC INITIATIVES AND PARTNERSHIPS, USTELECOM, WASHINGTON, D.C.

Introduction

Chairman Scott, Ranking Member Thompson, and other distinguished Members of the Committee, thank you for the opportunity to testify today. My name is Lynn Follansbee and I am Vice President, Strategic Initiatives and Partnerships for USTelecom, the national trade association representing network providers, technology innovators, suppliers and manufacturers committed to connecting the world through the power of broadband. Our diverse membership ranges from large publicly traded communications corporations to local and regional companies and cooperatives—all providing advanced communications services to urban and rural communities and everywhere in between.

The COVID-19 pandemic clearly illustrated that high-speed broadband is a cornerstone of American life, connecting people to education, healthcare, employment and virtually every aspect of our daily lives while ensuring our nation's economic security. USTelecom members actively participate in all Federal programs that support the deployment of broadband, including the Rural Utilities Service (RUS) Rural eConnectivity (ReConnect) Program. And under the current contributions system, our members provide a significant portion of the funds for the Federal Communications Commission's (FCC) Universal Service Fund (USF) programs. USTelecom welcomes the opportunity to provide thoughts on how interagency coordination can best foster efficient use of all broadband deployment funding while maximizing governmental efforts to close the digital divide. We also appreciate the chance to offer some suggestions for improvement to the ReConnect program itself.

We applaud the Committee for holding today's hearing. This is an important discussion as we look closely at how items adopted as part of the 2018 Farm Bill have impacted the deployment of rural broadband. It is also important to review how the U.S. Department of Agriculture (USDA) works with other Federal agencies toward achieving one of our nation's top priorities—closing the digital divide. Addressing challenges related to the deployment of broadband infrastructure is critical to connecting all communities, especially in rural areas.

Interagency Coordination is a Necessity

USTelecom and its members strongly support the cross-agency effort to ensure that all Americans have access to high-speed broadband, and agree that coordination of all Federal agencies' programs is crucial to achieving this goal.

The Infrastructure Investment and Jobs Act programs provide a significant amount of money for broadband deployment and there is a clear need for close coordination across all agencies involved. To ensure the best use of these critical funds, USTelecom recommends that policymakers require early reporting by states that administer broadband funding programs, particularly those funded by NTIA. This information on the areas that will be served by the funded projects will help avoid duplication or overbuilding and should be included in the FCC's Broadband Data Collection ("BDC") maps.

In adopting the Broadband DATA Act, Congress expressed a clear intent to ensure there is good data showing where there is service and where there is not—not only to close the digital divide, but also to ensure that scarce government resources are not spent on overbuilding. The recent agreement between the FCC, NTIA and USDA further advances this objective by requiring those agencies to share information about broadband availability and "consider basing the distribution of funds for broadband deployment . . . on standardized data regarding broadband coverage."¹

¹47 U.S.C. § 1308(b)(3).

As we move forward to fully connect the nation, it is essential that all Federal and state agencies that support broadband deployment initiatives should align goals and rely on the BDC maps.

Unfortunately, RUS has not always included FCC deployment data when making grants under the ReConnect program which has led to some wasteful overbuilding. With the Broadband Data Collection maps nearly completed, we are on the verge of having much more accurate data to guide these critical government investments. USTelecom urges the USDA, and all other agencies distributing funding, to prioritize policies that ensure government resources are coordinated and targeted to avoid spending funds on the same project.

USDA and other agencies must also align on the current definition of broadband. Having different deployment programs utilizing different speed minimums creates an inconsistent standard for broadband deployment. Finally, to further support a coordinated effort to connect all Americans, USDA must work directly with all Federal agencies administering broadband funding to ensure consistent requirements related to supply chains for broadband equipment across all programs, including the application of Buy America requirements.

The ReConnect Program Should Be Improved

All state and Federal Government broadband programs, including ReConnect, should narrowly direct resources to those communities that the BDC maps identify as having no service. Ensuring precious broadband funding is not wasted on overlapping projects is the only way we can reach 100 percent connectivity. Specifically, RUS should create clearer processes for both its applications and coverage challenges so there is greater transparency. Often, the results of coverage challenges are vague, or never made known at all, leaving providers wondering whether to proceed with a new build or upgrade to an existing network.

Additionally, despite some changes, there continue to be rules in place that limit participation by some applicants. For example, USDA's current rules require the grant to be superior to all other liens affecting the collateral. USTelecom urges RUS to consider alternatives, such as a letter of credit in the event there are liens on the underlying property or portions thereof. Such a change would enable more carriers to participate, particularly larger companies who serve the most rural and remote customers in the nation. Likewise, Section 7.4 of the RUS Grant Agreement does not allow an awardee to make distributions without RUS's consent while it is receiving grant funds. This appears to prohibit public companies from making distributions to its shareholders, thereby potentially limiting the company's ability to exercise its usual business practices and/or meet obligations to its shareholders. RUS should either clarify that this is not the case or change its rules to allow publicly held companies to participate.

Although the ReConnect program has admittedly evolved and had multiple successful rounds of its grant program, curiously ReConnect is still operating as a "pilot" program. In the upcoming farm bill, Congress should consider whether it intends to formalize the program and, if so, consider the program's current role in conjunction with available funds at other Federal agencies.

Precision Agriculture Task Force

I also have the privilege of serving as Vice Chair of the Mapping Working Group for the FCC's Precision Ag Task Force which provides advice and recommendations to the FCC and USDA on how to assess and advance deployment of broadband on unserved and underserved agricultural land. The Task Force's working groups focus in greater detail on specific issues related to Precision Agriculture, including Accelerating Broadband Deployment on Unserved Agricultural Lands; Mapping and Analyzing Connectivity on Agricultural Lands; Examining Current and Future Connectivity Demand for Precision Agriculture; and Encouraging Adoption of Precision Agriculture and Availability of High-Quality Jobs on Connected Farms. Each of these working groups has done extensive research and developed recommendations that address current challenges.

I applaud this Committee for its role in the creation of the Precision Ag Task Force as part of the 2018 Farm Bill. The Task Force is in its second 2 year term and has already made excellent recommendations to the Commission which will no doubt have an impact on the advancement of Precision Agriculture which helps farmers have more successful crops that ultimately feed all of our families.

The report adopted by the Task Force in its first term had recommendations to:

- Improve Federal broadband maps and consistently validate user experiences by building on the FCC's Broadband Data Collection effort to combine it with existing agricultural maps such as the NASS Cultivated Land data should be used to determine the base map extent for determining Cultivated Land area for the

continental U.S. to reveal for farmers where there is both fixed and mobile providers serving the agricultural and rural domains, including Native American agricultural lands;

- Increase incentives and subsidies at the local and national level to substantially increased to drive deployment of connectivity, with an overarching goal of deploying future-proof networks and enable Precision Agriculture deployment in to new areas of technology;
- Enhance both download and upload high-speed standards to meet the technology needs in agriculture and identify, implement, and/or strengthen policies to facilitate use of low, mid, and high-band spectrum for Precision Agriculture applications;
- Improve collaboration between Federal agencies and remove regulatory impediments to implement a common set of performance targets and standards that reflect the specific needs of Precision Agriculture, including build-out requirements for croplands and ranch lands. Multiple performance targets tailored for specific Precision Agriculture use cases—specifically USDA, NASS, Farm Service Agency (FSA), Risk Management Agency (RMA), Natural Resources Conservation Service (NRCS) and other agencies should align their existing and individual file management systems to have the capability to receive electronic data layers that are commonly created through the normal course of farm operations.
- Increase digital access to education and training for individuals engaged in farming to meet the increased demand for skilled workers that will result from the continuing adoption of Precision Agriculture; and,
- Place a priority on developing Precision Agriculture cyber security specialists by the USDA, and Department of Homeland Security in recognition that agriculture is critical and essential infrastructure and malicious acts should be treated accordingly.

These thoughtful and detailed recommendations reflect only a sliver of the hard work volunteer members of the Task Force are doing on a weekly basis to bring technology to crop lands and ranches to enhance the success of American agriculture workers.

Conclusion

The challenges associated with rural broadband connectivity require an enduring private and public sector commitment and partnership. Thank you for holding this hearing today and for the opportunity to share some thoughts with you today. USTelecom and our members stand ready to work with the Committee, Congress, and the Administration to connect all communities and, once and for all, close the digital divide.

The CHAIRMAN. Thank you very much, Ms. Follansbee.
And now, Commissioner Clark, please begin when you are ready.

STATEMENT OF HON. TARRYL CLARK, COMMISSIONER, FIRST DISTRICT, STEARNS COUNTY, MINNESOTA; CHAIR, TELECOMMUNICATIONS AND TECHNOLOGY POLICY STEERING COMMITTEE, NATIONAL ASSOCIATION OF COUNTIES, ST. CLOUD, MN

Ms. CLARK. Thank you, Mr. Chairman, Ranking Member Thompson, and distinguished Members of the Committee. I appreciate the opportunity to testify today. My name is Tarryl Clark, and I serve as First District County Commissioner for Stearns County, Minnesota. I am also representing the National Association of Counties in my role as the Chair of the Telecommunications and Technology Committee.

Counties play a major role in broadband deployment efforts within our communities, especially those in rural regions. We serve key roles as partners, funders, policymakers, data aggregators, and conveners for promoting high-speed internet access and broadband deployment across our communities. The lack of reliable broadband

in our rural communities is a major economic barrier and an issue of socioeconomic equality. Without access to high-speed internet, many of our rural and underserved communities are becoming increasingly isolated and left behind. For those in small communities, broadband can serve as a lifeline, connecting students to their homework, as well as gaining degrees, connecting sick patients to medical consultation locally unavailable, and having important business opportunities, including precision agriculture.

I am here today to underscore the central role that counties play in broadband deployment and accessibility efforts and how a strong intergovernmental partnership and collaboration will help us continue to work together to close the digital divide.

As we have witnessed, COVID-19 exacerbated the already dire digital divide in rural America. We urge Congress to continue to fund broadband deployment geared specifically to rural communities. To be clear, we have seen great progress so far. Counties applaud the efforts in the American Rescue Plan Act to fund the deployment of high-speed internet access across the country. We also appreciate and continue to engage with the U.S. Department of Agriculture's ReConnect Program, whose goal is to target much-needed broadband access to rural communities. These historic Federal investments show the need for Federal support in broadband investments for unconnected and rural communities continues to be a top priority for America's counties.

Beyond ARPA, the bipartisan infrastructure law also is offering vital resources to ensure access to high-speed internet to local governments. However, a continued focus on broadband infrastructure grants programs that are accessible, flexible, and respectful of the local decision-making authority is needed to connect rural America.

Given the elevated Federal role in broadband deployment efforts, counties appreciate the increased coordination and collaboration across multiple Federal agencies. As we review the progress we have made so far and keep an eye on the future, we believe the following principles can help to continue to steward broadband deployment efforts across the country.

First, streamline the grant application process, which is especially crucial for rural counties that may not have the personnel or fiscal resources when applying for grants that support broadband deployment.

Second, programs should support broadband investments that prioritize high-speed internet that will provide dependable internet access for the long run. High-speed internet access continues to constitute a character providing reliable, affordable, and accessible service for our rural communities to benefit the most.

Third, prioritize communities with no access to infrastructure, which includes areas that have yet to receive final approval for Federal funding in regards to building a viable broadband network in order to continue to proactively address the lack of connectivity in rural America.

Finally, leverage local expertise and resources, which offer an unparalleled level of knowledge when setting requirements and parameters in Federal programs. This includes quantitative and qualitative data, mapping efforts, and community testimony. We urge

our Federal partners to consider and value these resources for assisting in determining the level of need for our rural communities.

Moving forward, we want to ensure we meet our collective goal of 100 percent connectivity across rural America, which is not only vital to the success of these communities, but also our nation. A strong Federal-state-local partnership is needed. We believe in consultation with counties, the 2023 Farm Bill provides a unique opportunity to further address the dire connectivity needs of our nation's rural counties to ensure they are resilient and future-ready communities.

We appreciate your attention. I want to thank you again for this invitation and look forward to working together to close the digital divide faster and more efficiently.

[The prepared statement of Ms. Clark follows:]

PREPARED STATEMENT OF HON. TARRYL CLARK, COMMISSIONER, FIRST DISTRICT, STEARNS COUNTY, MINNESOTA; CHAIR, TELECOMMUNICATIONS AND TECHNOLOGY POLICY STEERING COMMITTEE, NATIONAL ASSOCIATION OF COUNTIES, ST. CLOUD, MN

Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee, thank you for the opportunity to testify on the importance of broadband and high-speed internet connectivity in our rural communities, and the role of county governments in helping to connect our most unserved and underserved residents across the country.

My name is Tarryl Clark and I serve as the First District Commissioner in Stearns County, Minnesota and Chair of the National Association of Counties Telecommunications and Technology Policy Steering Committee. Stearns County is home to approximately 160,000 residents who rely daily on the availability of high-speed internet to connect to remote work, education and telehealth services. Across our county, we boast a community whose backbone is the work of our rural communities and farmers, who depend on high-speed internet for uses as wide ranging as precision agriculture to modern participation in online commerce. Yet as demonstrated most recently by the COVID-19 pandemic, we are witnessing a connectivity gap that has left our rural residents out of reach from high-speed internet infrastructure and critical services. This lack of reliable broadband is a major economic barrier and an issue of socioeconomic equality.

Counties play a major role in broadband deployment efforts within our communities. We serve key roles as partners, funders, policymakers, data aggregators, and conveners for promoting high-speed internet access and broadband deployment across our community. As partners and funders, counties work to connect our residents to high-speed internet services through strong public-private partnerships and the utilization of Federal grant opportunities. We rely on a system of intergovernmental coordination with our Federal and state counterparts to achieve the collective mission of closing the digital divide.

As a testament to this role, and through the passage of the American Rescue Plan Act (ARPA) and implementation of the Coronavirus State and Local Fiscal Recovery Fund (Recovery Fund), counties have invested direct funds into critical broadband infrastructure and services through the ARPA Recovery Fund. Counties have also directly addressed issues of internet affordability and the "homework gap," through direct aid and support for our residents ranging from public WiFi and hotspots to outreach efforts that support expanded collaboration with community anchor institutions.

Counties also play a critical role as policymakers of broadband deployment within our jurisdictions. As stewards of public rights-of-way and other public property access points, counties work together with internet service providers on a regular basis to streamline broadband deployment and access for our residents, while retaining local authority for public assets that are held in trust to benefit the local community. Counties support smart policies such as "dig once" and "future-proofing" broadband infrastructure and deployment efforts to ensure that our residents have access to ongoing and reliable high-speed internet services.

Finally, counties serve as data aggregators and conveners in broadband deployment efforts. Counties across the country have engaged in efforts to collect quantitative and qualitative data at the local level to determine the true state of

connectivity and demonstrate community need for investments in high-speed internet connectivity. We also convene public partners and community stakeholders on a regular basis.

The role of broadband in rural communities today cannot be overstated. In fact, “broadbandification” of the country can be seen as very similar to the rural electrification movement of the 20th century, where the Federal Government played a critical role in serving our rural communities when the economic incentive to extend the grid was not present. There is a large opportunity for intergovernmental partnerships and coordination to continue with the different USDA broadband programs currently under review ahead of the 2023 Farm Bill.

As Congress begins negotiations around the 2023 Farm Bill, counties urge lawmakers to include provisions that will continue to advance our shared goals of closing the digital divide across America and providing rural communities with the resources they need to be resilient and future-ready in the 21st century. America’s counties agree on the following recommendations:

- **COVID-19 exacerbated the already dire digital divide in rural America, and counties urge Congress to continue to fund broadband deployment geared specifically to rural communities.**
- **The Bipartisan Infrastructure Law (BIL) is offering vital resources to ensure access to high-speed internet to local governments. However, a continued focus on broadband infrastructure grant programs that are accessible, flexible, and respectful of local decision-making authority is needed.**
- **To ensure we meet our collective goal of 100 percent connectivity across rural America, counties support a stronger Federal-state-local framework.**

COVID-19 exacerbated the already dire digital divide in rural America, and counties urge Congress to continue to fund broadband deployment geared specifically to rural communities.

Our lives and futures have become inextricably tied to technology. Without access to high-speed internet, many of our rural and underserved communities are becoming increasingly isolated and left behind.

The COVID-19 pandemic laid bare the digital divide in our country for rural communities, who are at a particular disadvantage in receiving adequate broadband service due to their remote location and lower population density. For these rural communities, broadband can serve as a lifeline, connecting students to online degrees and connecting sick patients to medical consultations locally unavailable.

Congress made historic investments into America’s counties with the passage of the American Rescue Plan Act (ARPA) and Bipartisan Infrastructure Law (BIL). Combined, both vital pieces of legislation have bestowed counties with the flexibility to invest in infrastructure networks targeted toward unserved and underserved households across the country. Counties have a large role to play in helping to steward these Federal resources and ensuring local communities receive access to high-speed and reliable internet service.

As these historic Federal investments show, the need for Federal support for broadband investments in our unconnected and rural communities continue to be a top priority for America’s counties. Both ARPA and BIL are offering vital resources in the form of direct fiscal aid to local governments. However, coupled with provisions in the farm bill, specifically resources through the U.S. Department of Agriculture’s ReConnect Program, counties have been able to take major and necessary steps to close the digital divide. Counties urge that the focus on rural connectivity in the current farm bill be carried over into the 2023 iteration to support our continued efforts in broadband infrastructure.

The Bipartisan Infrastructure Law (BIL) is offering vital resources to ensure access to high-speed internet to local governments. However, a continued focus on broadband infrastructure grant programs that are accessible, flexible and respectful of local decision-making authority is needed.

The Bipartisan Infrastructure Law (BIL) is currently offering the nation an unparalleled opportunity to close the digital divide and provide accessible and affordable internet access for all rural Americans. The BIL’s devotion of \$65 billion towards broadband deployment, digital equity and internet affordability initiatives provides the opportunity for well-guided Federal dollars to reach every unserved and underserved community across the country.

Counties are actively executing the mission of BIL’s broadband goals by working with our state partners to implement the Broadband Equity, Affordability, and Deployment (BEAD) program, promote the Affordable Connectivity Program (ACP) to

eligible households and communities within our jurisdictions, and developing digital equity plans in coordination with states to ensure our communities have the digital skills and support needed to thrive in a 21st century society.

As we continue to focus on connecting our rural communities to high-speed internet, the farm bill's existing broadband infrastructure programs stand as significant opportunities to close the digital divide. Specifically, in our experience when implementing these Federal programs related to broadband, counties offer the following recommendations:

- **Streamlined application processes:** To ensure that rural communities can and will participate in broadband infrastructure grant programs, a streamlined application process is needed. Counties play a large role in helping local providers apply for Federal dollars, and the farm bill can continue to support rural communities by providing as many on-the-ground resources as possible to support grant applications and streamline application requirements while ensuring projects meet the goals of delivering high-speed internet service.
- **Prioritizing high-speed internet:** To best meet the needs of rural residents, Federal programs should encourage broadband deployment projects that offer technological solutions that best fit a community's needs, while also prioritizing projects that promise the most reliable and high-speed service. This balance will ensure that communities retain the utmost flexibility to utilize the technologies that best meet the geographic and topological conditions of a particular community while ensuring that all broadband projects provide reliable and ongoing service that sufficiently constitutes high-speed internet.
- **Prioritizing communities with minimal access to broadband services:** Counties support Federal funding being allocated to areas with no broadband infrastructure, including areas that do not currently have projects with final approval to use Federal dollars to deploy broadband infrastructure that meets the minimum definition of high-speed internet. Our rural communities cannot miss this palpable moment to connect every unserved resident to high-speed internet that will be accessible and affordable for the foreseeable future.
- **Leveraging local expertise and resources:** Using local tools, such as community broadband mapping, can play a large role in helping our Federal partners identify where broadband is most needed. This unique data will help shed light on the true state of connectivity across the country, especially in rural regions. Counties, along with the Federal Communications Commission (FCC), will be able to adequately adopt the new national standard and utilize these findings to address our nation's connectivity issues.

To ensure we meet our collective goal of 100 percent connectivity across rural America, counties support a stronger Federal-state-local framework.

As important partners in the intergovernmental process, county leaders are most interested in serving in all capacities necessary to help close the ongoing digital divide in our rural communities. Counties that represent our rural residents recognize acutely that the ongoing divide leads to an unacceptable outcome for rural Americans, and the farm bill offers a unique opportunity to bring broadband infrastructure into focus for our rural communities.

As prudent stewards of Federal dollars and diligent collaborators with internet service providers, counties can help play a central role in the implementation of Federal broadband programs geared towards rural America.

This work to close the digital divide in counties across the country is ongoing and is truly a joint goal among Federal, state and local partners. For example, in my state of Minnesota, we have developed our Border-to-Border Broadband Development Grant Program initiative, which prioritizes high-speed internet services for our most unserved communities across the state. This state initiative requires robust coordination with local government partners to ensure we are meeting our residents' needs.

Another example of this intergovernmental partnership is with the authorization of ARPA. In Stearns County, we have dedicated over \$16 million to connect our residents to broadband that will ultimately provide fiber-to-the-premises to almost every household in our county. This project will ultimately require leveraging the efforts and funds from every township within our jurisdiction as well as ready-and-willing internet service providers in our county to drive this project to completion.

These are just two examples of how the intergovernmental partnership is critical in solving the technology divide in our nation. As important ground-level partners in our nation's intergovernmental system, counties can deploy the resources needed to make meaningful progress on rural broadband expansion, with a strategic focus on supporting rural communities.

Conclusion

Chairman Scott, Ranking Member Thompson, and distinguished Members of the Committee, thank you again for the opportunity to testify today.

Counties recognize that today, reliable, fast and affordable high-speed internet is a fundamental part of ensuring our residents can achieve healthy, safe and fulfilled lives.

We appreciate the efforts that have been brought forward thus far to address the current lack of connectivity in our rural communities and look forward to working with you to achieve our shared goal of closing the nation's digital divide.

The CHAIRMAN. And thank you, Commissioner Clark.

And now, Mr. Hawkins, please begin when you are ready.

STATEMENT OF J. GARRETT HAWKINS, PRESIDENT, MISSOURI FARM BUREAU, JEFFERSON CITY, MO; ON BEHALF OF AMERICAN FARM BUREAU FEDERATION

Mr. HAWKINS. Good afternoon, Chairman Scott, Ranking Member Thompson, and Members of the Committee. My name is Garrett Hawkins. I am a fifth-generation farmer and a cattleman from Appleton City, Missouri, which is about an hour and a half south of Kansas City. Agriculture runs deep in my family's roots as our extended family raises everything from livestock to row crops to dairy production. I am also a husband and father and I am proud to serve as the President of the Missouri Farm Bureau and certainly appreciate the opportunity to provide input on rural broadband deployment across rural America.

Deployment of this technology is critical for stimulating and revitalizing the rural economy. It is essential to modern agriculture, to the farmers and ranchers who grow our food, and for the quality of life for rural Americans. I see the need for broadband every day in rural communities as I travel all across the state. One family I was with the other night shared with me that they live just 1 mile past the city limit of a very urban area here in Missouri and still don't have access to high-speed internet. Other families I know use the technology not just for precision agriculture but for basic online marketing, as well as education.

I recently visited with another fellow farmer from southern Missouri, who was thrilled to see fiber optic line being run just a few miles from his farm. Maybe, he said, they will come my way in a year or so.

In Missouri, we have taken action to bring more broadband to rural communities. In 2017, Farm Bureau convened the Missouri Broadband Working Group. This group was comprised of over 120 stakeholders from all industries that formed recommendations that were taken to our governor and Congressional delegation. As a result, our governor established the Office of Broadband within our Department of Economic Development. This happened because of collaboration.

In addition, we have advocated for the Missouri Broadband Grant Program, which provides financial assistance to providers who are seeking to deploy broadband in underserved and unserved areas. Over the years, the program has grown, and Missouri recently approved a \$265 million investment into the grant program via our state's share of the American Rescue Plan Act funds.

Although we have made significant strides, the work is far from finished. Our state is already laying the groundwork for a success-

ful rollout of the Broadband Equity Access and Deployment Program, which was passed as a part of the IIJA. As an organization, we continue to advocate that our state direct adequate funding for the deployment of broadband to our unserved ag areas.

Knowing where adequate services exist is critical to crafting sound policies related to deployment. Missouri's Office of Broadband will be addressing this challenge head on by allocating our Federal dollars for a statewide mapping initiative.

I also have the privilege of serving on the FCC's Precision Agriculture Connectivity Task Force. Today's farmers and ranchers, we use precision ag techniques to make decisions that impact everything from fertilizer to the amount of water that is needed for our crops to the amount and type of herbicides that are applied. These are just a few examples of how farmers are using connectivity to bump yield, improve environmental impact, and increase profitability. Beyond specific on-farm needs, rural communities need access for healthcare and government services, education, and business opportunities.

The upcoming farm bill is an important opportunity for this Committee to continue the work that USDA is already doing in the broadband space, including but not limited to the ReConnect Program. In fact, the reason why I am not in Washington, D.C., today is because our friends at Rural Development are hosting a ReConnect workshop here in the Farm Bureau building in Jefferson City.

In the 2018 Farm Bill, Congresswoman Hartzler worked with us to pass an amendment to set the minimum build-out speed for USDA-funded broadband programs. We appreciate the Committee's work as well to better direct coordination and interoperability among programs administered by USDA, the FCC, and NTIA, and we want this cooperation to continue moving forward.

As more precision equipment becomes available, we must make sure that we are prioritizing the build-out of projects that will take us into the future. Truly, that is what this really needs to be about is building a network, a system that will be future-proof for those of us in agriculture in rural America.

Farm Bureau appreciates the Committee's interest in rural broadband. Thank you again for the opportunity to testify on this important issue on behalf of our farmers and ranchers, and I look forward to your questions.

[The prepared statement of Mr. Hawkins follows:]

PREPARED STATEMENT OF J. GARRETT HAWKINS, PRESIDENT, MISSOURI FARM BUREAU, JEFFERSON CITY, MO; ON BEHALF OF AMERICAN FARM BUREAU FEDERATION

Good morning, Chairman Scott (D-GA), Ranking Member Thompson (R-PA) and Members of the Committee. My name is Garrett Hawkins, and I am a fifth-generation farmer from Appleton City, Missouri, and the third generation in my family to own and operate the farm on which we live today. Agriculture runs deep in our extended family and spans livestock, row crop, and dairy production. I am a proud husband and father, and I serve as President of Missouri Farm Bureau (MOFB). I appreciate the opportunity to provide input on the necessity of rural broadband deployment and its importance across rural America.

Deployment of broadband technology is a critical link in stimulating and revitalizing the rural economy. Rural broadband is essential to modern agriculture, the farmers and ranchers who grow our food and the quality of life for rural Americans. While most Americans take broadband for granted, according to the Federal Communications Commission (FCC) nearly 19 million Americans lack access to

broadband. This is not distributed evenly, 17% of rural Americans lack access to broadband, compared to only 1% of urban Americans. Keep in mind that the statistic referenced above is only an estimate, as FCC's data collection and mapping processes are viewed as unreliable by many experts in the broadband field. Regardless, the number of people in rural America that lack access to broadband is discouraging. Farm Bureau members have recognized the urgent need to deploy broadband in rural communities and have elevated broadband access and affordability as a priority due to its impact on their daily lives.

In Missouri, we have taken strong action to bring broadband to more rural communities. In 2017, Missouri Farm Bureau convened the "Missouri Broadband Working Group." This group was comprised of over 120 stakeholders from all industries that formed legislative and regulatory recommendations that were ultimately taken to our Governor and Congressional delegation. As a result, Missouri's Governor established the Office of Broadband within our Department of Economic Development. This office is responsible for keeping their finger on the pulse of all things broadband in Missouri. The creation of this office would not have been possible without the collaborative efforts of Farm Bureau, our state Departments of Agriculture and Economic Development, and the University of Missouri.

In addition, we successfully advocated for the Missouri Broadband Grant Program, which provides financial assistance to providers who are seeking to deploy broadband in underserved and unserved areas. Over the years, this program has grown, and in 2022 Missouri legislators approved a \$265 million investment into the grant program via the State of Missouri's share of the American Rescue Plan Act (ARPA). This program would fund new broadband projects across the state in unserved and underserved communities, which the bill defines as areas lacking 25/3 Mbps. Additionally, in 2020, the Missouri legislature passed legislation supported by MOFB that would allow our Department of Economic Development's Community Improvement District and Neighborhood Improvement District programs to be used to facilitate broadband deployment within special districts.

Although we have been able to make significant strides in our state, the work is far from finished. Farm Bureau continues to advocate for strong investment to support broadband deployment in rural communities. Our state is already laying the groundwork for a successful rollout of the Broadband Equity, Access & Deployment (BEAD) program and the Digital Equity Act (DEA), which were passed as part of the Infrastructure Investment and Jobs Act of 2021 (IIJA). Missouri Farm Bureau, Missouri's Department of Economic Development, and other partners such as the University of Missouri Extension will be engaged in a full statewide tour and plan to hear from local communities to address real world challenges as we deploy programs. As an organization we are advocating that the state direct adequate funding for the deployment of broadband internet service to unserved agricultural areas.

Knowing where adequate broadband services do and do not exist is critical to crafting sound public policies related to broadband deployment in rural areas. Missouri's Office of Broadband will be addressing this challenge head on by allocating recently approved ARPA funds for a statewide mapping initiative.

The ability of the Federal Communications Commission (FCC) and all other relevant agencies to utilize accurate broadband coverage maps is crucial. Last Congress, Farm Bureau advocated for the passage of the Broadband Deployment Accuracy and Technological Availability Act (Broadband DATA Act). This bipartisan and comprehensive bill improves the accuracy of broadband coverage maps and better directs Federal funds for broadband build-out. Specifically, it requires the FCC to improve the accuracy and granularity of its maps by establishing a serviceable location fabric, which will serve as a baseline for served, underserved and unserved broadband areas, an outcome that Farm Bureau policy supports. We are pleased to see the FCC is making progress on these new maps and look forward to their expected release by the end of the year.

Farmers and ranchers depend on broadband just as they do highways, railways and waterways to ship food, fuel and fiber across the country and around the world. Many of the latest yield-maximizing farming techniques require broadband connections for data collection and analysis performed both on the farm and in remote data centers. However, 18% of U.S. farms have no access to the internet, according to the USDA report, "Farm Computer Usage and Ownership, 2021."

I serve as part of the FCC's Precision Agriculture Connectivity Task Force Accelerating Broadband Deployment on Unserved Agricultural Lands Working Group. America's farmers and ranchers embrace technology that allows their farming businesses to be more efficient, economical and environmentally responsible. Today's farmers and ranchers are using precision agricultural techniques to make decisions that impact the amount of fertilizer they need to purchase and apply to their fields, the amount of water needed to sustain crops, and the amount and type of herbicides

or pesticides needed. These are only a few examples of how farmers use broadband connectivity to achieve optimal yield, improve environmental impact and maximize profits.

Beyond specific on-farm needs, rural communities need access to health care, government services, and educational and business opportunities. For many rural communities, access can only be gained by using broadband services and sophisticated technologies that require high-speed connections. The coronavirus pandemic only exacerbated and made more apparent the need for broadband in rural communities as employees shifted to working from home, school districts closed and resorted to distance learning platforms, and patients sought health care through telemedicine platforms.

The upcoming farm bill is an important opportunity for this Committee to continue the good work that USDA is already doing in the broadband space, including but not limited to the ReConnect Program. In the 2018 Farm Bill, Missouri Farm Bureau successfully worked with Congresswoman Vicky Hartzler (R-MO) to pass an amendment that set the minimum build-out speed for USDA-funded broadband programs at 25/3 Mbps. We also appreciate the Committee's directive in the last farm bill to better coordinate interoperability among broadband programs administered by USDA, FCC, and NTIA.

Precision agricultural equipment requires a wireless broadband connection for data collection and analysis performed both on the farm and in remote data centers. As more precision equipment becomes available, farmers and ranchers cannot take full advantage of technologically advanced equipment if they do not have access to wireless broadband in the field and on the ranch. A 2021 study, "The Future of American Farming: Broadband Solutions for the Farm Office, Field, and Community," released by the Benton Institute for Broadband Society and sponsored by the United Soybean Board, found that to meet the growing demand among farmers for both upstream and downstream speeds, networks must be capable of 100/100 Mbps service. Upload speeds are sometimes more important to farmers and ranchers since they often need to upload data at faster speeds than they need to download items.

As the Committee and agencies contemplate future broadband needs, MOFB and the American Farm Bureau Federation recommend the agency coordinate closely with the USDA Rural Utilities Service as well as the FCC Precision Agriculture Connectivity Task Force to support the interests of rural communities and agriculture.

As Congress and the Administration implement programs that support the deployment of broadband to rural communities, please consider the following principles.

- **Improve Data Accuracy & Mapping:** We continue to advocate for additional mapping and the use of more granular data sets when determining which areas are eligible for Federal (and state) funding.
- **Plan for the Future:** When awarding broadband projects, we should consider speeds that account for teleworking and remote education needs, rather than just recreational use of broadband.
- **Foster Local, State, and Federal Partnerships:** Close working relationships between local, state, and Federal partners are critical to maximize the use of funds available for broadband deployment. Various entities that deploy broadband should work together in order to ensure the needs of rural America are being met.
- **Focus on Precision Agriculture:** Too often, Federal programs do not take into account the specific needs of agriculture and rural America when developing programs that incentivize deployment. Agriculture as a whole has the potential to be a strong beneficiary of rural broadband services, and it will be important to take these needs into account. Access to broadband and data services can result in more data-driven decisions on the farm, if the technology is available.

Farm Bureau appreciates the Committee's commitment to expanding broadband to all of rural America. Broadband is essential to modern agriculture, the farmers and ranchers who grow our food and the quality of life for rural Americans. Thank you again for the opportunity to testify on an issue so critically important to the individuals Farm Bureau represents. I look forward to answering any questions the Committee has on this important matter.

The CHAIRMAN. And thank you very much. And to each of our very distinguished three witnesses, we want to thank you for your excellent testimony.

At this time, Members will be recognized for questions in order of seniority, alternating between the Majority and Minority side. You will be recognized for 3 minutes each in order to allow us to get in as many questions as possible before votes are called on the floor.

And also as I remind our Members, please keep your microphones muted until you are recognized in order to minimize background noise.

And now I recognize myself to start with 3 minutes.

And Ms. Follansbee and Commissioner Clark, as you well know, our 2018 Farm Bill established the FCC Precision Agriculture Task Force of which you both are members. And the task force adopted a series of recommendations, including improving Federal broadband maps, interagency collaboration, and prioritizing development of precision agriculture, cybersecurity specialists at USDA, among many others. Following the task force adoption of this report and its recommendations, let me ask you, have you all received any updates of the status of those recommendations? And have the agencies been working to implement those recommendations?

Ms. FOLLANSBEE. I will go first. Thank you very much, Congressman, for your question.

The CHAIRMAN. Yes, please.

Ms. FOLLANSBEE. As a current member of the task force, I can't speak for the FCC and USDA on their behalf, but I can let you know that the task force is ongoing and it is actively working on a weekly basis. There are groups meeting weekly to work on additional recommendations and encourage further development of ideas that can improve precision agriculture.

The CHAIRMAN. Okay. And Commissioner Clark, I believe, next.

Ms. CLARK. Thank you, Mr. Chairman. I would have to second what Ms. Follansbee just said in terms of the committee, but as it relates to the work we are doing at NACo, each of those in the groups that you referenced have been working with us, and we appreciate that ongoing commitment to doing so.

The CHAIRMAN. Very good because we have so many agencies involved. And this is the greatest part of our challenge. If we are able to keep our agencies working in collaboration with each other, it is going to smooth this process. And so I am glad to hear that you all have received an update on it and that you are working to improve those areas.

And I see that my time is rapidly closing. And so now I recognize the gentlewoman from North Carolina, Ms. Adams, who is also the Vice Chair of our Committee on Agriculture. You are recognized for 3 minutes.

Ms. ADAMS. Thank you, Mr. Chairman, again, for hosting this hearing, and to our witnesses, thank you for your testimony.

Ms. Clark, in your testimony, you discussed how COVID-19 exacerbated the digital divide, particularly as it pertains to the homework gap. As an educator for over 40 years and a Member of the Education and Labor Committee, I am committed to ensuring that each and every student can access the internet at home so we can close this homework gap once and for all. So, Ms. Clark, can you discuss the role that local governments play in deploying high-

speed internet and what a more robust Federal-state-local framework might look like?

Ms. CLARK. Mr. Chairman and Congresswoman Adams, thank you. Thank you for your commitment and your work on that. Certainly, as a mom and now a grandmother, I very much appreciate those efforts.

This has been a really critical area. We saw it in particular in rural communities, but we also saw it in historically underserved urban areas as well. So most counties, many counties across the country have utilized, whether it was CARES Act (Pub. L. 116-136) or ARPA (Pub. L. 117-7) funds, have worked with school districts to try to help with making sure that they have the tools for the students to be able to do the homework the way they need to and while they have been doing remote learning to do that as well. Unfortunately because so many areas still don't have sufficient broadband, it can be really hard. Like I was thinking about one of my county's childcare providers who has kids of her own and they have an egg business as well, and they just can't get enough speed so as to be able to have everybody doing it at the same time. Or in my district where we have a large number of immigrants and refugees, if you have several kids that are trying to do homework at the same time, you need a high enough speed.

So counties right now across the country are partnering with those districts and utilizing and trying to leverage resources so that we can get that high-speed affordable internet to as many of our school kids as quickly as possible. But your continued help is needed on that front, so thank you.

Ms. ADAMS. Well, thank you very much. You actually answered my second question I have for you in terms of any roadblocks you may have. But Mr. Hawkins, do you have any information on about why we need to ensure that all farmers can make use of the precise technologies? I only have a few seconds.

Mr. HAWKINS. For us to compete in today's global marketplace, we need access to technology. And truly as I think about how to bring the kids home to the farm, Congresswoman, technology is the key. Technology is key to opening up more markets on the farm, better access to technology. But clearly in our rural communities I can't bring my kids home if the community has died around us. And so truly broadband is that thread of life through the community out to [inaudible].

Ms. ADAMS. Thank you, sir. Thank you, and I yield back.

The CHAIRMAN. Thank you very much. And now the gentleman from Indiana, Mr. Baird, is recognized for 3 minutes.

Mr. BAIRD. Thank you, Mr. Chairman and Ranking Member. I really appreciate the opportunity to visit with these witnesses today, and I really appreciate their expertise.

Mr. Hawkins, I really appreciate your interest in cattle and being a farmer and then I think you really touched on something that is important. The only way we are going to get these young people back to the farm is if we got high-speed internet and the technology so they can get on the phone or whatever they need to do.

But in that vein, I wanted to ask you what you thought about what the upload speeds need to be for an average family in rural America, and does this need to change for farmers utilizing preci-

sion agriculture? So just a quick idea of what your thoughts are for download/upload speeds.

Mr. HAWKINS. Well, thank you for the question, Congressman. It is hard to wrap your arms around what is the ideal speed. What we continue to say is that the bandwidth has to be reliable and robust from the standpoint of being future-proof. In agriculture, as we look at the incorporation of precision technology, we need the ability to upload massive amounts of data in very rapid fashion.

Just the other day at our agritourism conference here in Missouri, a young farmer displayed a drone and how he uses the drone to map his agritourism operation, as well as to use it for a chemical application to control weeds as well as pests. And again, as he thinks about cameras and his ability to scan and monitor the farm, you got to be able for that data to be able to transfer quickly, especially when we are working with third parties.

I would also say anecdotally, I am looking at exploring and using a new innovative forage technology on the farm that one of the keys will be that I have connectivity in a robust fashion so that the company that is providing this forage technology can monitor to make sure the equipment is working effectively. And so truly, the farm of the future has to be connected, and truly, the future is now, sir. So truly, at least 100 is what we say megabit per second is truly what we need to be shooting for. My rural hospital says the same thing, that they need 100 up, 100 down in order to do telemedicine in a way that is truly a good experience for the provider as well as the patient.

Mr. BAIRD. Thank you for that insight. And, Tarryl, I see you nodding your head, but we are about out of time, so I assume that means you think that is an appropriate speed, too. I got to tell you that at one time in my life, I was a County Commissioner as well and I enjoyed that time very much.

Ms. CLARK. Yes, sir.

Mr. BAIRD. I appreciate what you are doing. I yield back.

The CHAIRMAN. Thank you. The gentlewoman from Ohio, Ms. Brown, is recognized for 3 minutes.

Ms. BROWN. Thank you, Chairman Scott, for holding this incredibly important hearing on the future of broadband.

While access to reliable and affordable broadband internet has long been the standard for many across the U.S., there are still millions of people, including my constituents in Ohio, who continue to struggle with unreliable connections and unaffordable rates. As workplaces and classrooms migrated online during the pandemic, the digital divide became apparent. I am proud that my colleagues and I passed legislation this Congress that included broadband funding to address the digital divide. The broadband appropriations in the bipartisan infrastructure law are one of the largest Federal broadband investments in history, and I look forward to building on our success.

So my question is for Ms. Follansbee. In your testimony, you spoke to the value of factoring in user experience as we work to bring broadband access to all corners of the country. Can you explain why that is important for policymakers and those administering these programs to consider?

Ms. FOLLANSBEE. Yes, thank you, Congresswoman, for your question. The user experience is essentially the customer experience, right? And we are trying to close the digital divide. We are attempting to make sure that everybody has the same type of service in the sense that folks have access to education, they have access to telehealth, they have access to precision ag applications. All of that is important. So we need to ensure that all of the country has at least some broadband and focus on the need to future-proof that network so that, going forward, the speeds can build. It is a scalable situation. Obviously, our members are building a lot of fiber with the BEAD money that is coming through NTIA, and we believe that will bode well for the future.

Ms. BROWN. Thank you for your answer. Commissioner Clark, as a former county council member myself, I know the important role that the county governing bodies play in the success of programs like these, especially where there are smaller municipalities within their jurisdiction. Can you speak to the partnership between county governments and USDA and other agencies, and are there areas for improvement?

Ms. CLARK. Thank you so much. Yes, actually, the FCC, USDA, NTIA, and others have been coming and working with us to help with the educational process but listening to the barriers, a number of which Members have talked about today. You brought up some of our most rural areas as well, and I can tell you using my county as an example, almost all of our townships are also leveraging their ARPA funds with ours, while we then also try to go apply for state and Federal funds to keep growing it so we can get all those areas covered. So really that local, state, Federal components are just critical, and we just need to keep working at it.

The CHAIRMAN. Thank you.

Ms. BROWN. My time has expired. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Ms. Brown.

And now the gentleman from Pennsylvania, our distinguished Ranking Member Thompson, is recognized for 3 minutes.

Mr. THOMPSON. Well, Mr. Chairman, thank you so much. My apologies. I had to step out of the hearing room, but my appreciation to the second panel for their local service and everything that they do, especially in the space of bridging the digital divide.

So I have a question for Mr. Hawkins. As you may know, last July, this Committee passed unanimously H.R. 4374, the Broadband Internet Connections for Rural America Act, which consolidates the ReConnect Program in the 2018 Farm Bill rural broadband programs. As we approach the next farm bill, how can we make these rural broadband programs more efficient and more effective for rural America?

Mr. HAWKINS. Well, thank you, Ranking Member Thompson, for the question and your continued leadership in this space along with the Committee.

I have a couple of thoughts. Something that we would love to see more of in Missouri is more cooperation across territories to make sure that service is getting provided. And maybe in some cases it may be a rural electric co-op that then works with an investor-owned utility where their service areas butt up against each other. And maybe the co-op is providing broadband but the IOU has no

interest in it. We want to see incentives for out-of-the-box thinking and cooperation to make sure that these dollars are stretched as far as they can and that service is provided in an efficient manner, so let's be creative.

And then I would also say, an experience or a concern that we have had is the accountability on the back side. Once awards are made, making sure that those providers who are receiving these dollars are held accountable to provide the service that they said they are going to provide and do it in a timely fashion. So we have communicated, for instance, to the FCC that when a provider doesn't follow through, that maybe they need a second-in-line approach, that whoever was next in line, they have the second-best application, maybe those dollars should go there. Or if a state has shown leadership and established an Office of Broadband and has processes in place to handle those dollars, maybe those dollars should be given to that state to then allocate to make sure that those unmet needs are taken care of. But certainly, those are a couple of items that I would consider and hope you consider during the next farm bill.

Mr. THOMPSON. Very good. Well, I will just encourage any of our witnesses that would want to weigh in, in writing. Obviously, the ReConnect Program is still operating as a pilot. And I would love to hear from you why it is important for USDA's broadband programs to be statutorily authorized, the importance of that certainty, going forward.

But in the consideration of time, I will ask a reply from that, a future reply.* And, Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, Ranking Member.

And now the gentleman from Florida, Mr. Lawson, is recognized for 5 minutes.

Mr. LAWSON. Thank you, Mr. Chairman.

The CHAIRMAN. Three minutes.

Mr. LAWSON. Thank you, Mr. Chairman. You said 5 or are you saying 3?

The CHAIRMAN. I say 3.

Mr. LAWSON. Okay.

The CHAIRMAN. Thank you.

Mr. LAWSON. Thank you.

In my home State of Florida, 96 percent of our population has access to broadband and only about seven or eight percent of Floridians in the rural areas have that access. The numbers are even lower in the rural counties in north Florida in Gadsden County. My home county was only about 13 percent of the residents have broadband while 89 percent of the households could receive it.

The question is to the panel—when Congress is considering broadband funding legislation for counties like Gaston, why is it necessary that Congress not only fund projects that expand connectivity and infrastructure for broadband but also fund projects that address affordability, barriers of residence? And that is for the whole panel.

* **Editor's note:** the responses to the information referred to are located: for Ms. Follansbee, p. 1531; Ms. Clark, p. 1531; and Mr. Hawkins, p. 1532.

Ms. FOLLANSBEE. I will start. Thank you, Congressman, for your question. Yes, there are several pieces to the deployment of broadband. There is access, which is what you are talking about, the initial ability to get broadband, and then there is affordability. And there is also something called adoption, which is getting folks to sign up for it. Fortunately, in the IIJA there are funds to not only increase deployment but also they created the Affordable Connectivity Program, which has been very successful in expanding the ability of folks with low incomes to be able to afford their broadband service. And adoption also is part of the program and will require additional work, but I think all three of those things have been addressed, and we look forward to seeing the programs implemented to achieve those goals.

Mr. LAWSON. Did anyone else want to speak to that?

Ms. CLARK. Sure, Mr. Chairman, and, Congressman. This is a really big issue. The ACP is going to be a big help. We are working actually on bringing providers who are going to receive funds through our county and can show that they are having that program available to residents. But in addition, we are finding a fair amount of rural areas that are experiencing something that one of our residents talked about, which is I am now paying for satellite. It is \$120 a month. They say it is unlimited, and yet we start getting metered and shut down and my child can't even get homework and I can't run my business. We are hearing these kinds of stories around the country. So that affordability piece needs to be actually available to folks. So we want to keep working to have the ACP available throughout the country and for it to be real for all of our residents.

Mr. LAWSON. Thank you, Mr. Chairman. Do I still have a minute?

The CHAIRMAN. No, I am afraid we are out. Thank you, Mr. Lawson.

Mr. LAWSON. With that, I yield back.

The CHAIRMAN. Yes. And now the gentlelady from Minnesota, Mrs. Fischbach, is recognized for 3 minutes.

Mrs. FISCHBACH. Three minutes? I will have to talk quick. Thank you, Mr. Chairman.

Well, you know what, then I will go first to Commissioner Clark, who actually I was honored to serve with in the Minnesota Senate. And I will resist calling you Senator Clark but Commissioner Clark. You mentioned in your written testimony Minnesota's Border-to-Border Grant Program, which continues to be widely popular among providers and local governments, and you and I have both worked on this program, I am sure, in our time in the Senate for both state and local governments. But what lessons can we learn from this program, and what can we bring to the next farm bill reauthorization?

Ms. CLARK. Thank you, Congresswoman, for that question and for your work. It is an easier program for our internet service providers to apply for. It has been an easier program for counties and other local governments to also approach. So streamlining, streamlining processes is part of that, making it easier. Particularly you brought up Todd County earlier, for our smaller counties to actu-

ally be able to get in the door and have an opportunity to receive these funds.

One of the approaches that we think is important would be to have kind of a single entry point, and so trying to figure out which place to go to federally or which program, streamline the application, make it so you can come in a portal and you really can be able to access the funds that meet your county's needs so that a county like Todd, who is really unserved, can actually deal with that, right? So the Border-to-Border Program we are hearing from smaller internet providers is that actually is a pretty doable program to approach. Let's make that happen on the Federal level, too.

Mrs. FISCHBACH. Thank you very much. And maybe if any of the other panelists would want to just add. I have a minute left if anybody wants to add to those thoughts? All right. I don't hear anyone. So, Mr. Chairman, I will yield back my 49 seconds. Thank you.

The CHAIRMAN. Thank you very much.

And Mrs. Flores is recognized for 3 minutes if she is connected. We have been able to get her connected. Okay. Mrs. Flores, are you able to get connected? Okay. If she does, you can interrupt me on my closing. And you can also, Mrs. Flores, submit your questions in writing, and we will make sure we get to you.

I really appreciate everybody's cooperation here. We have votes pending. I appreciate everybody cooperating with the shortened time. And we appreciate our witnesses taking the time to really give us some valuable information. And thanks once again.

But before we adjourn and I give my closing statement, good to have you back here in person. The Ranking Member got here in person.

Mr. THOMPSON. Good to be out of the virtual world and back in the real world.

Why, Mr. Chairman, thank you so much, once again, for your overall partnership as we advance the issues facing rural America or, as I like to say, essential America and specifically on the topic of broadband. I thought we had great witnesses today. I was very disappointed with the first panel once again, that NTIA and the FCC were so disrespectful to the people of rural America where they did not accept the invitation to testify today since they have a significant outreach.

But I think we heard a lot of good things. I think it reaffirmed the great work that we as a full Committee, unified, had done in terms of, we heard about the need for a circuit rider position. We heard about mapping issues. And certainly within the bill that we advanced, there was some grant funding specifically to allow local entities to determine where the gaps were in the digital divide. So it just reaffirmed the work that this Committee is doing in the space of rural broadband, that we are right on target.

The CHAIRMAN. Yes, we are.

Mr. THOMPSON. And that is much appreciated, really encouraging USDA and Rural Utilities Service, who unfortunately has been allocated to a partnership role, but it looks like a minor role, certainly from a dollar perspective—when you look at \$65 billion or whatever it was and USDA gets \$2 billion of those dollars. I think that it demands that we as a Committee have a strong oversight role that we need to exercise in terms of bridging the digital

divide in essential or rural America. And that these partners, the witnesses we have heard from, local government, key stakeholders, we look forward to working with them and performing that role and certainly encouraged USDA and specifically the Rural Development and Rural Utilities Service to exercise some oversight as well of the other two partners on this.

And with that, thank you for the hearing, and I yield back.

The CHAIRMAN. And thank you. And, Ranking Member, I want to really, sincerely thank you. You and I decided early on at the very beginning that it was our top priority for our rural areas. It is a point of survival for our rural areas not just in terms of agriculture but in terms of the survival of many of our small, rural towns. We are losing too many of them. I was born in a rural town over in Aynor, South Carolina. You cannot get much more rural than there. And this bill means a lot. And I appreciate—thank you for our joint partnership on this. We couldn't have done it without your help and my help and working together.

And I want to thank my Committee because both Democrats and Republicans on this Committee, we said finally we are going to get rural broadband in place. And now we are depending upon—as you all are working with all the different agencies. Now is collaboration. It is working together. We got \$65 billion here. We are ready to go. And we appreciate all of our witnesses coming in and helping us to make sure that we have the FCC, the USDA, the NTIA, all of these other organizations at the Federal level. And then they have to work in collaboration with the state level. So we got a monumental task here, but this hearing is getting us off to a good start.

So we want to hear from everyone if there are areas where there is not collaboration, if there are things we can do in Congress to make sure we can smooth the paths and make sure everybody is working in good coordination, that is the way we are going to get done. Our rural communities are depending upon us, and we are going to succeed.

So once again, thank you. God bless you. And now I think I have to take care of this business.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member. And thank you once again for helping us to get to the floor. They are about to call votes now. Thank you.

This hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 1:07 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. RICK W. ALLEN, A REPRESENTATIVE IN CONGRESS FROM
GEORGIA

July 09, 2021

Hon. JESSICA ROSENWORCEL,
Acting Chairwoman,
Federal Communications Commission,
Washington, D.C.

Dear Acting Chairwoman Rosenworcel:

We write to request quarterly updates from the Federal Communications Commission (FCC) on the development of a comprehensive, user-friendly dataset on broadband availability that considers input from state and local governments, Tribal nations, and consumers, supplementing information that the FCC gathers from carriers. On March 16, 2021, the FCC announced¹ the launch of this initiative, and we look forward to receiving an update on the status of its rollout. We also write to request a specific timeline of when you expect this project to be completed and for new and updated FCC broadband maps to be publicly available.

As you noted in your announcement, the accuracy of the broadband maps provided by the FCC have long been in question. One of the biggest concerns we hear from telephone cooperatives, electric membership cooperatives, and private companies is that FCC mapping, from which distribution of Federal grant and loan dollars is based, is inadequate and incorrect.

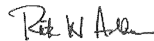
We applaud your action to implement the Broadband Deployment Accuracy and Technological Availability (DATA) Act, which is an important step towards providing a more granular, publicly available, and comprehensive look at internet access in America. We urge you to include data from the Georgia Broadband Map program² in the dataset used to develop these updated FCC maps. We also request an answer in writing as to whether you intend to use this data.

As requested, please provide a written response to the following:

1. Please provide Congress with quarterly, written updates on the status of the rollout of new FCC broadband mapping.
2. Please provide a timeline of when exactly we should expect new and updated FCC broadband maps to be publicly available.
3. Please confirm in writing if you will integrate data from the Georgia Broadband Map program into your new mapping program.

Thank you for your attention and for your service.

Sincerely,



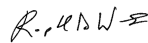
Hon. RICK W. ALLEN,
Congressman



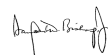
Hon. JON OSSOFF,
Senator



Hon. EARL L. "BUDDY" CARTER,
Congressman



Hon. RAPHAEL G. WARNOCK,
Senator



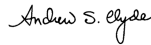
Hon. SANFORD D. BISHOP, JR.,
Congressman

¹<https://www.fcc.gov/news-events/notes/2021/03/16/running-start-new-broadband-maps>.

²<https://broadband.georgia.gov/maps>.



Hon. A. DREW FERGUSON IV,
Congressman



Hon. ANDREW S. CLYDE,
Congressman



Hon. BARRY LOUDERMILK,
Congressman

CC:

FCC Commissioner BRENDAN CARR
FCC Commissioner GEOFFREY STARKS
FCC Commissioner NATHAN SIMINGTON



Hon. AUSTIN SCOTT,
Congressman



Hon. JODY B. HICE,
Congressman

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. KOCHITL TORRES SMALL, UNDER
SECRETARY FOR RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE

Insert 1

Ms. ADAMS. . . .

I have also heard from rural schools what happens when they aren't able to provide powerful internet connections to their students. They miss out on research opportunities, jobs, and a whole lot more. So, Madam Under Secretary, most states have a research and education network that provides high-speed internet access to schools, but not all schools are hooked up to those networks, and during our push to connect rural areas, what do you think we should do to ensure that our rural HBCUs and MSIs and Tribal colleges can access these critical networks?

Ms. TORRES SMALL. That is a great question. And I would love to follow up with you about specific outreach that we can do to HBCUs if they are lacking that high-speed internet connection right now because one of our focuses at Rural Development has been how do we reach out to potential partners? How do we make sure folks know how to navigate the ReConnect process, which can be challenging, and know about the other resources that are available as well? So I would love for us to be able to follow up with you to talk about how we can intentionally reach out to HBCUs.

USDA also has the Distance Learning & Telemedicine Program which supports connection to the internet and equipment to deliver distance learning programs. This is an excellent program used by many schools. It will help with providing distance education curriculums. A different Rural Development Program, Community Facilities Program is another resource for HBCU's and MSIs. These programs in their broad scope enhance educational institutions' connection to the internet.

Insert 2

Mr. LAMALFA. I am sorry. I am running out of time. Do you have concerns that linking with these other sources could somehow harm your own data mapping? Do you have any concerns about that?

Ms. TORRES SMALL. That is a really good question. I would love to follow up with you to see if there are—just to ask generally to my team. None have risen to me because we are sharing really well and because we are using multiple sources of information, and last, because we have that ground-checking capability so if there are conflicts about the different mapping, we can go on the ground and check to see if that service—but I will get back if we find any others.

USDA follows a trust but verify approach to review applications. The applications are checked to verify that the proposed service areas meet the non service eligibility requirements.

Insert 3

Ms. PINGREE. I just want to follow up a little bit because it is an issue I have brought up previously. It is an issue we have been hearing about over the years. We have been told that there are some technical assistance people that are called general field representatives that are meant to be there to help and support, but we often get the feedback that there aren't enough, that they are spread over a wide range. I don't know how many states each GFR covers. But again, I feel like every time I have this conversation—and I have great faith in you accomplishing this—we hear like, oh, that is going to come, we are working on it. Can you talk at all about anything else you might need? Should there be more language in the farm bill?

* * * * *

Mr. McCLEAN. No, thank you very much. And staffing is always an issue for us. We are a remarkably small agency that does a remarkable amount of work. There is at any given time about 100 or 20 telecom staffers that are delivering this massive program. We are very, very proud of that work. We have about 25 or so GFRs in telecom and about 23 or so in electric at any given time, and that is to cover the whole country. So we are not able to have a GFR in every single state, but we try to maximize our outreach. We use contract support. We have had webinars to try to help communities.

No additional information to add.

Insert 4

Mr. ROUZER. So with regard to ReConnect, the program has a number of administrative burdens, which make it a little difficult, time-consuming, and cumbersome for some—or actually many providers from what I hear. So the program requires—and this is an example. The program requires the provider to submit significant information regarding non-funded service areas. It also requires all environmental approvals to be obtained in sequential order rather than filed and reviewed concurrently. How are you all working through these burdens? And doesn't it make sense to streamline this and have these objectives reviewed concurrently?

* * * * *

Ms. TORRES SMALL. . . .

In terms of sequential environmental reviews, I will pass it over to Acting Administrator McLean.

Mr. McLEAN. Thank you very much. And another thing about round 1 and round 2 was the effect of the pandemic, particularly in those early months when it was a total lockdown. Historic preservation offices were closed at Tribal level and state level, so environmental review just elongated. So we worked very hard to try to expedite environmental review as much as possible. But it is it is a point well-taken and—

No additional information to add.

Insert 5

Ms. KUSTER. Great. One quick question and maybe you will need to submit in writing, but I strongly concur with your sentiments about how access to reliable telehealth services helps ease the provider gap in our rural communities and wondering if you could share insights that you have heard about how USDA broadband programs have opened up new telehealth options.

Ms. TORRES SMALL. Someone even went so far as to say it is a recruitment tool. A nurse who was trying to get other folks to apply to her rural hospital said once they were able to get the technology that worked with high-speed internet to be able to reach more people in their homes, the workforce was just more excited to be there because they could better do their job.

The Distance Learning and Telemedicine program helps rural communities use the unique capabilities of telecommunications to connect to each other and to the world, overcoming the effects of remoteness and low population density. For example, this program can link teachers and medical service providers in one area to students and patients in another. The broadband programs such as ReConnect provide the necessary and underlying broadband infrastructure that makes connection to the internet possible.

A year ago, USDA funded 86 projects through the *Distance Learning and Telemedicine* (DLT) grant program. The program helps rural education and health care entities remotely reach students, patients and outside expertise. These capabilities make world-class education and health care opportunities accessible in rural communities. The ability to use telehealth resources is critical, especially now during a global pandemic.

One example is in Georgia, where the Morehouse School of Medicine Inc. will use a \$997,194 grant to purchase interactive telecommunications, distance learning and telemedicine equipment. Equipment will be installed in service hubs in two counties in west-central Georgia. It will be used to provide a variety of health care services to residents in underserved rural areas of nine counties across the state. These services include mental health and substance abuse treatment and counseling; clinical services; referrals for specialty care; health education and career development to schools; and chronic disease diagnosis, treatment and management, including COVID-19.

Insert 6

Mr. ALLEN. Well, my home State of Georgia Broadband Map Program is the gold standard in the nation's broadband maps. It precisely maps out the availability of broadband services to every home and business in the state. Other states are following Georgia's lead in implementing similar programs. So we have the maps. We know the needs in Georgia. And of course, Madam Under Secretary, I believe you were in Georgia recently meeting with broadband providers, including my constituent, Steven Milner, with whom I have worked on many broadband rollout projects in my district. Could you provide us an update on how those meetings went and what your takeaway was? And I am out of time. You can submit that answer in writing. I would appreciate that. With that, Mr. Chairman, I yield back.

I greatly appreciated the opportunity to meet with stakeholders in Georgia and across the country to identify ways to continue to improve ReConnect and to use the funds as efficiently as possible to reach the hardest to serve areas. One of the key takeaways from the conversation in Georgia was from a broadband provider, who noted that sometimes we have to collaborate, or in his words "find a dancing partner," to make an investment in hard to reach places work.

Insert 7

Mrs. CAMMACK. So, to that point, and this will be my final follow-up because I am running short on time, I hear continuously from various stakeholders, and we have heard in past hearings that the lengthy process, the approval process for broadband loan applicants, it is too long. So how long is it taking on average for broadband funding to get out the door once the application window closes? And what can we do to expedite those funds getting out the door?

Ms. TORRES SMALL. This is the balance that we have been talking about. So we have a 5 year build-out, and that is the main—and just to answer your question quickly, the main thing is that ReConnect has a 5 year build-out. But we reimburse for expenses so that—

Once the application window closes, we proceed with our evaluation process which takes into account the project eligibility, scoring, technical and financial review of the applications, and verifications of broadband service within the proposed service Territory. This process generally takes 3–4 months from the time of submittal of all applications to an award decision. After the award is made and once all legal documents have been executed and the award closing has been completed—recipients have 5 years to complete their projects. Funding is advanced or reimbursed on an as needed basis through this 5 year period.

Insert 8

Mr. O'HALLERAN. Thank you very much. I also want to emphasize the importance of outreach to our local communities. You mentioned that a little bit. And I know you have stressed that time and time again. That is why you have been out in the field so much. But the underlying aspects of this are real. And people right now—we, as Congress, should be able to be out there all the time, making sure we are educating the public as much as possible. But what type of programs can we anticipate on a large scale for the public to be able to understand not only the programs but the timing mechanisms and all the other planning that is going to go into that?

Ms. TORRES SMALL. The outreach is crucial. That is why President Biden's Rural Partners Network is really exciting, focusing efforts in places that need it most.

Mr. O'HALLERAN. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. Could you please respond in writing? The gentleman's time is up, and we have a hard stop with votes coming.

Focused Outreach is led by the Rural Partners Network. The Rural Partners Network (RPN) is an all-of-government program that helps rural communities find resources and funding to create jobs, build infrastructure, and support long-term economic stability on their own terms. RPN leadership is Under Secretary for Rural Development Xochitl Torres Small, Farah Ahmad, Deputy Under Secretary for Rural Development and Lee Jones, Executive Director for the Rural Partners Network. RPN has a wide group of Federal department partners. This includes the White House, USDA, Departments of Treasury, Interior, Commerce, Health and Human Services, Housing and Urban Development, Labor, Transportation, Energy, Education, Veteran Affairs; and EPA, SBA Appalachian Regional Commission, Consumer Financial Protection Bureau, Social Security Administration, Delta Regional authority, Denali Commission, [Northern] Border Regional Commission, and Southeast Crescent Regional Commission.

Through the Rural Partners Network, rural people and communities benefit from collaborative partnerships among an association of Federal agencies, staff and programs. USDA Rural Development (RD) is leading the Rural Partners Network in collaboration with 20 Federal agencies and regional commissions through the Rural Prosperity Interagency Policy Council, co-led by the White House Domestic Policy Council and USDA.

Through the Rural Partners Network (RPN), the Biden-Harris Administration is taking action to transform the way the Federal Government partners with rural communities to spur inclusive, sustainable economic growth. The RPN creates an alliance of Federal agencies and civic partners working to expand rural prosperity through job creation, infrastructure development, and community improvement. The RPN will improve equitable access to Federal programs and funding, and help drive local economic development. With the RPN, Federal agencies are renewing their commitment to rural communities by expanding interagency collaboration and providing targeted staffing, tools, and resources.

SUPPLEMENTARY MATERIAL SUBMITTED BY B. LYNN FOLLANSBEE, J.D., VICE PRESIDENT STRATEGIC INITIATIVES AND PARTNERSHIPS, USTELECOM

Insert

Mr. THOMPSON. Very good. Well, I will just encourage any of our witnesses that would want to weigh in, in writing. Obviously, the ReConnect Program is still operating as a pilot. And I would love to hear from you why it is important for USDA's broadband programs to be statutorily authorized, the importance of that certainty, going forward.

But in the consideration of time, I will ask a reply from that, a future reply.

Given the advent of the once in a generation infrastructure funding for broadband it is important that the relevant agencies that oversee broadband funding take a holistic approach to the deployment, support and coordination of their broadband programs to ensure that government resources are not spent twice in the same area. One important piece of this coordination is for USDA and other coordinating entities to have a firm understanding of the ReConnect program projects that exist, as well as those that are underway. With the program's "pilot" designation come's less certainty about the future of the program for participants and government institutions alike.

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. TARRYL CLARK, COMMISSIONER, FIRST DISTRICT, STEARNS COUNTY, MINNESOTA; CHAIR, TELECOMMUNICATIONS AND TECHNOLOGY POLICY STEERING COMMITTEE, NATIONAL ASSOCIATION OF COUNTIES

Insert

Mr. THOMPSON. Very good. Well, I will just encourage any of our witnesses that would want to weigh in, in writing. Obviously, the ReConnect Program is still operating as a pilot. And I would love to hear from you why it is important for USDA's broadband programs to be statutorily authorized, the importance of that certainty, going forward.

But in the consideration of time, I will ask a reply from that, a future reply.

The USDA has a clear and important role to play in the "broadbandification" of our country. As the saying goes, the USDA knows rural America best. Similar to

the role that the agency played in rural electrification throughout the early 20th century, there is a clear need for the USDA to continue to work as a steward for high-speed internet services for our rural communities that remain unconnected due to a lack of market incentive to build out internet infrastructure in remote or rural areas. The ReConnect Program has offered a key opportunity for local governments and other entities to directly apply for funds to build out high-speed networks in these target areas. Counties strongly support a continuation of the ReConnect Program through long-term authorization of the program and associated appropriations.

Counties similarly believe the USDA may have other opportunities to expand its authority and role in rural broadband deployment through programs that have been historically initiated in the farm bill. For example, the Middle Mile Infrastructure Program authorized in the 2018 Farm Bill has yet to be appropriated funds. The middle mile, or “backbone” of internet infrastructure offering interconnection between communities and an ability for open access to the network, is an essential component of broadband buildout that should be prioritized further. The USDA can supportive middle mile connectivity goals.

It is important for the USDA, in any future role in broadband, to coordinate closely with other Federal agencies as the collective desire to close the rural digital divide is pursued. This includes coordination with the National Telecommunications and Information Administration (NTIA), the U.S. Department of [the] Treasury (Treasury), and the Federal Communications Commission (FCC).

SUPPLEMENTARY MATERIAL SUBMITTED BY J. GARRETT HAWKINS, PRESIDENT,
MISSOURI FARM BUREAU; ON BEHALF OF AMERICAN FARM BUREAU FEDERATION

Insert

Mr. THOMPSON. Very good. Well, I will just encourage any of our witnesses that would want to weigh in, in writing. Obviously, the ReConnect Program is still operating as a pilot. And I would love to hear from you why it is important for USDA's broadband programs to be statutorily authorized, the importance of that certainty, going forward.

But in the consideration of time, I will ask a reply from that, a future reply.

The ReConnect Program has become a key component in USDA's effort to expand broadband across rural America. Since its inception, it has been consistently funded by Congress, even receiving a significant investment through the Infrastructure Investment and Jobs Act. While the program is the highest funded USDA broadband program, it continues to operate as a pilot program while other USDA broadband programs are authorized and examined through the farm bill.

Farm Bureau policy supports the ReConnect program and we believe it is critical to periodically examine how it is working, how it can be improved, and whether it is appropriately meeting its intended goal. Expanding access to broadband across rural America is a multiyear effort and requires significant investment. Statutorily authorizing programs provides certainty and consistency for those utilizing the program. It allows for users to prepare long-term and provides a better opportunity for stakeholder input on the efficacy of the program.

Every 5 years, Farm Bureau works with Congress to pass a new farm bill to meet the challenges of an ever-changing world and ensure that critical programs continue to work for farmers and ranchers and for rural communities working to stay competitive. The 2023 Farm Bill provides a ripe opportunity to provide statutory authority for the ReConnect Program.

SUBMITTED QUESTIONS

Response from Hon. Xochitl Torres Small, Under Secretary for Rural Development, U.S. Department of Agriculture

Question Submitted by Hon. Gregorio Kilili Camacho Sablan, a Delegate in Congress from Northern Mariana Islands

Question 1. Under Secretary Torres Small, in your written testimony, you mentioned that the Bipartisan Infrastructure Law provides \$2 billion for Rural Development's ReConnect program. These funds are intended to expand broadband services and infrastructure in rural and remote areas, like my district, the Northern Mariana Islands. Could you confirm how much ReConnect funding your Department has awarded to the Northern Marianas and other U.S. Territories?

Answer. For the first 3 ReConnect funding rounds, there were three awards in U.S. Territories: one in Puerto Rico for \$8,783,260, one in Palau for \$34,991,340, and one in Guam for \$29,767,352.

Question 2. Under Secretary Torres Small, under the National Telecommunications and Information Administration's new Broadband, Equity, Access, and Deployment Program, states and Territories will create and submit a proposal on how to utilize broadband funding. Has your Department at all engaged broadband agencies at the Territory level to inform their plans and accommodate the unique needs of their rural and remote areas?

Answer. USDA co-chairs the ABI which spans across many Federal agencies looking at a number of areas such as pole attachments, environmental concerns and permitting on Federal lands to name a few. In addition, USDA, through MOUs, meets bi-weekly with the FCC, NTIA and Treasury to ensure that we are all working together to clearly identify the areas where Federal awards are approved for broadband service to ensure that we are not duplicating efforts. Through these engagements, we are aware that FCC and NTIA have been engaging with state and Territorial governments on preparing to apply for funds under the Broadband, Equity, Access, and Deployment Program.

Question Submitted by Hon. Jimmy Panetta, a Representative in Congress from California

Question 1. The mapping tool in the environmental section of ReConnect's application process allows applicants to designate proposed zones to be utilized in the deployment process. Applicants' responses determine what documentation and environmental reviews must be subsequently completed. According to the Rural Utility Service, a lack of locational specificity in submitted construction plans could cause the application system to request additional, unnecessary environmental reviews.

For example, if a large area is marked off for fiber deployment instead of a single, narrow route, the applicant must submit relevant environmental documentation for entire zone—regardless of where fiber cables are eventually installed. Completing extraneous reviews will needlessly cost applicants time and resources—especially for those small communities that lack the resources needed to gather this data and map these spaces.

Under Secretary Torres Small, do you think the application process could be more accessible or streamlined?

Answer. Yes, although we have been making strides in improving the environmental review process, there is still room for improvements. USDA is working to fully automate the environmental review process which will make it easier for applicants to use. Environmental reviews are a necessary part of construction to ensure that all possible efforts are being made to address environmental concerns and that awardees are following applicable laws.

Question 1a. How does USDA–RD address these complaints?

Answer. With regards to the Environmental Review process, the ReConnect applications process is refined as we learn lessons and feedback is obtained from each round. From ReConnect Round 1 to ReConnect Round 4, considerable effort has been made to streamline the environmental procedures and add environmental review resources. This resulted in significant improvement in the time required for the review process. We have recognized the cost of necessary environmental reviews by an awardee by explicitly noting that environmental pre-application costs are includable with certain other application costs as part of a ReConnect award.

This illustrates USDA's dedication toward continuous improvement in the application process. It is also a reflection of suggestions from Members of Congress and feedback from rural communities and applicants.

Question 2. There are many broadband programs at the Federal level, and many agencies tasked with broadband programs. The FCC plays a large role in providing data to support USDA's efforts.

Congress passed the Broadband DATA Act to improve broadband maps, and we need everyone on the same page to make them as useful as possible.

How are agencies across the Administration working together to share data and ensure we have solid data to inform our decisions?

Answer. USDA, NTIA, Treasury and FCC collaborate on broadband data. These agencies have entered into a Memorandum of Understanding to share this information. Through this collaboration, our goal is to ensure that Federal dollars from each agency are not duplicating each other's efforts.

Question 2a. How does it collaborate with stakeholders outside the Federal Government?

Answer. USDA continuously seeks input from stakeholders through listening sessions, outreach, stakeholder events and webinars. The team of RUS Telecom General Field Representatives serving all states provide direct local contact on the ReConnect and other USDA broadband programs. In addition, Rural Development has 47 state offices with numerous additional offices within each state. The state staff are also direct points of contact with stakeholders throughout rural America. We also collaborate with State Broadband Offices. RUS makes special effort to collaborate with Tribal Governments and Native American communities working with the USDA Tribal Relations Team Lead & Tribal Coordinator.

Question 3. As I mentioned, differing rural definitions can create challenges and confusion for the rural areas that are caught in the middle. Sometimes they are counted as rural, and sometimes they are counted as non-rural.

Leaders from these places find that there is significant disagreement over whether they are designated as rural. The complexity of the rural definitions leads to frustration and wasted time for rural leaders who seek to access Federal programs and resources.

Under Secretary Torres Small, what is USDA doing to address this issue?

Answer. The rural definition for ReConnect is a statutory requirement. To implement this requirement, USDA has developed a GIS layer identifying the non-rural areas that are not eligible for the funding. This layer can be accessed on the ReConnect webpage.

Question 3a. What can we do in Congress, in the 2023 Farm Bill, to bring clarity to these rural leaders and make USDA Rural Development programs more accessible to communities stuck in the middle?

Answer. As the rural definition is a statutory requirement, Congress can further define and clarify the exact definition of rural area in the FY 2023 Farm Bill.

Question 4. My constituents have faced the issue of an inadequate rural definition for years.

Under Secretary Torres Small, why do you think it has taken this long for the contradiction among rural definitions to come to a head?

Answer. Although there are differing statutory requirements for many Rural Development programs, the rural definition for ReConnect has been constant since the beginning of the program. USDA ensures that the statutorily required rural definition is clearly defined in the ReConnect regulation and all of our outreach activities.

Question 4a. Why, if we know it's leaving behind our rural communities like the ones I represent, has USDA not administratively changed the way these rural definitions impact programs as important as ReConnect?

Answer. USDA respects the role of Congress in defining rural. We cannot change statutory requirements and look forward to any discussions that Congress would like to have with USDA to further develop this definition.

Question b. Do you need Congressional action to make this fix?

Answer. Congress has defined rural in each farm bill for each Rural Development Program. As rural area is defined in statute, Congressional action would be necessary to change the definition.

Question Submitted by Hon. Troy Balderson, a Representative in Congress from Ohio

Question 1. Under Secretary Torres Small, I am concerned that without using the FCC's maps, a significant amount of ReConnect funding could go to areas that are already considered served, or even to areas that will be funded by the FCC's RDOF program or the NTIA's BEAD Program. Can you tell me, specifically, how USDA is going to prevent duplication and overbuilding in ReConnect 4 when the program will not be using the same broadband maps as BEAD or RDOF?

Answer. We share your concerns regarding Federal funds and understand the responsibility of being good stewards of taxpayer dollars. USDA collaborates closely with our Federal partners, such as the Federal Communications Commission (FCC), the Department of Commerce's National Telecommunications Information Administration (NTIA) and Economic Development Administration, and the Department of [the] Treasury (Treasury), to coordinate Federal broadband funding efforts. On June 25, 2021, USDA, FCC, and NTIA, signed an interagency agreement to share information and coordinate on the distribution of Federal broadband funds USDA shares data with the NTIA to inform their National Broadband Availability Map (NBAM), which helps inform Federal funding decisions. NTIA built and updates NBAM with information provided by USDA, FCC, states, local governments, Tribal governments, owners and operators of broadband networks, educational institutions, nonprofits, and cooperatives. USDA is a co leader with NTIA on the American Broadband Initiative (ABI) Federal Funding Workstream group, which consists of more than 25

Federal agencies sharing strategies for increasing efficiency in government broadband programs.

Per our speed standards, USDA does not fund projects where there is sufficient access to broadband or in an area that has already received Federal financial assistance to fund sufficient access to broadband. As the FCC releases their Data Fabric, this fabric will also be used as part of the USDA's Service Area Validation process that is the final step in determining if broadband service is present in an area.

Question 2. Under Secretary Torres Small, as you know, a lot of precision agriculture technologies use a broadband connection. These technologies will require a strong wireless connection to be able to operate properly in the field. How are you working with the FCC and the NTIA to ensure that farmers will have access to robust wireless broadband that will allow for them to deploy state-of-the-art precision agriculture technologies?

Answer. USDA is an active participant in the FCC Precision Agriculture Task Force, provides expert consultation on precision agriculture, and follows the rapid development of precision agriculture and its broadband needs.

As wireless technologies continue to evolve USDA will work with our Federal partners to ensure sufficient bandwidth/frequencies are available for precision agriculture.

Question Submitted by Hon. Michael Cloud, a Representative in Congress from Texas

Question 1. Based on the ReConnect program's Evaluation Criteria, can you tell me off the top of your head what the average score—as determined by the program's evaluation criteria—has been for applicants who were awarded money from the program?

Answer. Each funding category is scored separately and does not compete against each other. For Round 3, the average score for 100% grants: 77.24; the average score for 50/50 combo: 70.5; the average score for 100% grant for Tribal government and SVC: 105.93.

Question 2. How did USDA go about assigning point values in ReConnect's Evaluation Criteria?

Answer. As all projects are different, we tried to balance the scoring criteria to be fair to all. We also took into account administrative directives to prioritize the hardest to serve areas in rural America.

Question 3. In the Evaluation Criteria, what were the recommendations provided to USDA on rurality being at least 100 miles from a community with a population of over 50,000? My hometown of Victoria has roughly 67,000 people, but some would argue that our county is rural and contains communities that lack access to service with speeds of 25/3 mbps.

Answer. Over the years, we have discovered that although rurality of an area is very important there is no perfect answer in addressing it. In order to connect the areas hardest to reach without government investment, USDA decided to establish two ways for a community to qualify as rural. First, communities can qualify if they are low density. Second, areas can qualify if they are somewhat more dense, but significantly removed from a larger population. This allowed us to serve distressed areas such as Alaskan/Tribal villages because they tend to be more dense in a small area of the village. With the two options, we believe we are reaching the most rural areas.

Question 4. In ReConnect's Evaluation Criteria, what was the reason for prioritizing local governments, nonprofits, and cooperatives over privately-owned, local utility providers? There are several of these providers in my district who have a long history of building reliable broadband networks, but they are at a disadvantage based on the Evaluation Criteria.

Answer. We are endeavoring to reach the hardest to serve places, connecting people where profit may not necessarily be a motivating factor. Historically the majority of ReConnect awards have gone to private companies and this was a way for USDA to encourage more participation on the part of nonprofits, county, state, and Tribal governments.

Response from B. Lynn Follansbee, J.D., Vice President Strategic Initiatives and Partnerships, USTelecom

Question Submitted by Hon. Eric A. "Rick" Crawford, a Representative in Congress from Arkansas

Question. I've heard from several companies that a lack of access to broadband has significant impacts on many aspects of their business. For example, Tyson Foods has a significant presence in my district, and as with many agribusinesses, has many facilities in primarily rural areas across the country. Those facilities are

not immune from poor internet and often face challenges with tasks as simple as operating scanners, querying databases, and joining Zoom calls. This impacts productivity, can cause delays, and generally makes doing business in these rural areas more difficult. Could you speak to the challenges businesses face with poor access to broadband in rural areas, and the effect these hurdles can have on the broader community?

Answer. In this day and age all businesses, including farmers rely on internet connected devices to run their businesses. Whether it is for traditional purposes such as inventory, shipping, accounting, employee communication or precision agriculture applications, it is nearly impossible to run a business large or small without internet connectivity. In an increasingly digital economy even the most rural business can compete nationally and globally, but only when they are connected with the highest broadband speeds. Instead of measuring the effectiveness of broadband grant programs only by the total number of locations served, a component of success must also be connecting the unconnected in order to ensure even the most remote communities are served.

Response from Hon. Tarryl Clark, Commissioner, First District, Stearns County, Minnesota; Chair, Telecommunications and Technology Policy Steering Committee, National Association of Counties

Question Submitted by Hon. Eric A. "Rick" Crawford, a Representative in Congress from Arkansas

Question. I've heard from several companies that a lack of access to broadband has significant impacts on many aspects of their business. For example, Tyson Foods has a significant presence in my district, and as with many agribusinesses, has many facilities in primarily rural areas across the country. Those facilities are not immune from poor internet and often face challenges with tasks as simple as operating scanners, querying databases, and joining Zoom calls. This impacts productivity, can cause delays, and generally makes doing business in these rural areas more difficult. Could you speak to the challenges businesses face with poor access to broadband in rural areas, and the effect these hurdles can have on the broader community?

Answer. The effect of a lack of connectivity in our rural communities has a distinct impact on the ability for businesses to thrive. As our economy continues to digitize and internet access is a necessity for competition, rural businesses continue to fall behind as high-speed internet infrastructure fails to reach our most unserved communities. This ongoing dilemma has led to a "brain-drain" in many of our rural communities, as businesses and human capital are incentivized to relocate to areas with better access to high-speed internet infrastructure to promote business growth. There has become an overwhelming need for rural communities to be equally treated with a level of service that will allow for businesses to actively participate in the digital economy without disruption. This necessitates a high standard of network performance for both wireline and wireless connectivity—as oftentimes, for agribusiness in particular, connectivity in the home is equally as important as connectivity in the field.

Response from J. Garrett Hawkins, President, Missouri Farm Bureau; on Behalf of American Farm Bureau Federation

Question Submitted by Hon. Eric A. "Rick" Crawford, a Representative in Congress from Arkansas

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Answer. Broadband is important to our farms and businesses in many ways. Farmers and ranchers rely on broadband access to manage and operate successful businesses, the same as small businesses do in urban and suburban America. Access to broadband is essential for farmers and ranchers to follow commodity markets, communicate with their customers, gain access to new markets around the world and, increasingly, for regulatory compliance. Additionally, some small business accounting programs require us to download the latest tax data to do payroll and pre-

pare our taxes. We use broadband to place orders for inputs and often, if a connection is available, can check availability and pricing in real time. We would not be in business without access to broadband, and we cannot compete with businesses in more urban areas if we don't have connectivity.

One family I know operates a soil testing lab with customers worldwide. Until recently, they struggled to find affordable, reliable broadband service. They were paying hundreds of dollars a month for sub-par broadband to barely run their business. However, with the advancements and investments that have been made over the past few years, they are now able to access reliable service at their farm and at their lab, making it easier to conduct their global business.

Other families I know use online marketing tools to market their products throughout the country. Farms and agribusinesses utilize broadband every day to make their business model a success. Whether it is a business that provides an agricultural service to a local community or a company that ships products all over the country, this service is critical to our everyday life.

**A 2022 REVIEW OF THE FARM BILL
(STAKEHOLDER PERSPECTIVES ON TITLE II CONSERVATION
PROGRAMS)**

TUESDAY, SEPTEMBER 20, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSERVATION AND FORESTRY,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:04 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Abigail Davis Spanberger [Chair of the Subcommittee] presiding.

Members present: Spanberger, Pingree, Kuster, O'Halleran, Pannetta, Schrier, LaMalfa, Allen, Johnson, Moore, and Thompson (*ex officio*).

Staff present: Paul Babbitt, Lyron Blum-Evitts, Kelcy Schaunaman, John Konya, John Busovsky, Ricki Schroeder, Patricia Straughn, and Dana Sandman.

**OPENING STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER,
A REPRESENTATIVE IN CONGRESS FROM VIRGINIA**

The CHAIR. This hearing of the Subcommittee on Conservation and Forestry entitled, *A 2022 Review of the Farm Bill: Stakeholder Perspectives on Title II Conservation Programs*, will come to order. Welcome, and thank you for joining today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open for questions. In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may join us today.

Good morning and thank you so much for being at this hearing. I am excited for today's hearing, emphasizing stakeholder perspectives on farm bill conservation programs. American farmers and producers have a long history of being among the best stewards of our land, and promoting conservation practices as a way of protecting our environment for generations to come. Ensuring that they have the tools they need to best take care of the land for today and for future generations is critical to the policy decisions that we make in this Committee. And I hope that we can use today's conversation as an opportunity to listen and learn from our producers and growers about what they need as we head into drafting the 2023 Farm Bill.

As part of today's hearing, we will hear how our conservation programs are currently working for producers, how investments in

conservation programs are addressing our resource needs, and how these programs can be utilized to help address the climate crisis. I am pleased that we are hearing from producers, conservation professionals, and advocates who understand today's evolving challenges from water scarcity to increased input costs in raising everything from cattle to wheat. I appreciate that today's witnesses have taken the time away from their important work to discuss the current state of farm bill conservation programs so that we can make informed policy decisions that will make the programs easier for producers to use to address their resource concerns while also providing environmental, social, climate, and overall economic benefits. I am eager to hear from our witnesses.

[The prepared statement of Ms. Spanberger follows:]

PREPARED STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER, A REPRESENTATIVE IN
CONGRESS FROM VIRGINIA

Good morning, and welcome to today's hearing. I am excited for today's hearing emphasizing stakeholder perspectives on farm bill conservation programs. American farmers and producers have a long history of being among the best stewards of our land and promoting conservation practices as a way of protecting our environment for generations to come. Ensuring that they have the tools they need to best take care of the land, for today and for future generations, is critical to the policy decisions that we make in this Committee. I hope that we can use today's conversation as an opportunity to listen and learn from our producers and growers about what they need as we head into the drafting of the 2023 Farm Bill.

As a part of today's hearing, we will hear how our conservation programs are currently working for producers, how investments in conservation programs are addressing our resource needs, and how these programs can be utilized to help address the climate crisis.

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I am eager to hear more from our witnesses.

The CHAIR. I would now like to welcome the distinguished Ranking Member, the gentleman from California, Mr. LaMalfa, for any opening remarks he would like to give.

**OPENING STATEMENT OF HON. DOUG LAMALFA, A
REPRESENTATIVE IN CONGRESS FROM CALIFORNIA**

Mr. LAMALFA. Thank you, Madam Chair, I appreciate it.

I am glad we got a chance one more time to discuss the 2018 Farm Bill Conservation Title. The Title II programs are voluntary and incentive-based, providing direct benefits to producers, their operations, and the land itself. The delivery of the farm bill's conservation programs is a proven model that we know works and will continue to be important for the long-term success of our farmers, ranchers, growers, and the rural areas nationwide.

Since the 1985 Farm Bill, conservation programs have continued to evolve to better support American agriculture with some of those significant reforms in just the past two reauthorizations. This includes program consolidation and streamlining, which have improved the delivery of conservation programs by making them simpler and easier for the producers to navigate.

The Committee has worked hard to keep these programs producer-first while protecting mandatory funding for essential programs. As this Committee begins crafting the next Conservation Title, I am hopeful we can build on these reforms and maintain the emphasis in support for working lands, programs, and farm infrastructure.

Since the beginning of this Congress, there has been a lot of attention placed on environmental regulations, soil health, and ways that farm conservation programs can help sequester more carbon. Through a variety of recent actions, significant new funding for so-called climate-smart activities and several main farm bill conservation programs has been made available or will be soon.

Specifically, this includes a \$3.5 billion Climate-Smart Practices Pilot Program USDA is currently administering. This funding is being released unilaterally and comes with no mandate, direction, or authorization from Congress on how to actually distribute it. In addition, this new funding comes on top of the most recent reconciliation package passed last month, which provided roughly \$20 billion for four conservation programs.

So since it is not clear how this new funding will be obligated or specifically utilized by the Department, this Committee must conduct oversight as USDA administers an enormous amount of taxpayer dollars, especially with a new farm bill on the horizon. In light of this, the House Agriculture Committee must be mindful of this massive amount of funding before amending programs and making policy changes that reorient conservation programs more towards climate mitigation.

Make no mistake, USDA conservation programs do provide numerous environmental benefits, including for soil health. However, no one natural resource concern should be prioritized over others, considering all the benefits and good work these programs presently support. Instead, Congress can't lose focus. It must maintain our support for the long-held promises of Title II programs to meet our broad environmental and conservation goals and the needs of the producers.

I would like to thank all of our witnesses for participating today. We look forward to the testimonies and a thorough conversation on Title II. Madam Chair, I yield back. Thank you.

The CHAIR. I now recognize Ranking Member Thompson of the full Committee for any opening comments he would like to make.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Madam Chair, Ranking Member, thank you both for holding this hearing. This is the work this Committee should be doing as we prepare for the next farm bill. I am excited to hear from stakeholders about what is working and what isn't and to hear more about what direction the title should take.

Now, I have been a longtime supporter of our farm bill conservation programs. I was honored to serve as Chairman of this Subcommittee during the 2014 Farm Bill process. And we can all be proud of the bipartisan work we did in this title in both 2014 and 2018. But I have to tell you, folks, the way the Majority and this Administration have gone on an unprecedented spending spree

with little to no input from Republicans and stakeholders have led to a situation where I think could endanger the bipartisan support of this title. And just the last month, Democrats have spent nearly \$20 billion on conservation programs, and then the Biden Administration has doubled down and spent \$3.5 billion from the CCC on projects to make our food system align with corporate climate agendas.

These actions are not good for the long-term viability of these programs. I hope that in the next Congress we can truly evaluate the funding needs for these programs, paired with an evaluation of the ability to effectively and judiciously deliver these funds to farmers. After making this evaluation, we can talk about what the real needs are for the title.

Now, I don't feel bound by the amount of funding or to the specific program allocation passed in the partisan Inflation Reduction Act (Pub. L. 117-169). I especially am worried about the earmarking of all the new money just for climate rather than letting the locally-led process work.

Let me talk about some of my goals for the title. First, the producer should be at the center of any discussion. We want the Conservation Title to work for the producer and help not only provide environmental outcomes, but also good economic sense. We should also ensure that these programs are easy for producers to understand and access. We should look at ways to streamline and simplify our conservation programs. We should improve upon those aspects in CSP and RCPP, but the Conservation Reserve Program should be a part of that discussion.

Second, I will not prioritize climate over every other natural resource concern, period.

Third, I would like to see innovative solutions, whether that is emphasizing technology such as precision agriculture like we have done in the PRECISE Act (H.R. 2518, Producing Responsible Energy and Conservation Incentives and Solutions for the Environment Act), or Mr. Davis's NO EMITS Act (H.R. 2508, Naturally Offsetting Emissions by Managing and Implementing Tillage Strategies Act of 2021) or my own SUSTAINS Act (H.R. 2606, Sponsoring USDA Sustainability Targets in Agriculture to Incentivize Natural Solutions Act of 2021). We as a party will be the party of solutions.

Fourth, we should emphasize working lands. Republicans have emphasized working lands programs for the last 2 decades, even before it became popular in the conservation community. EQIP has been the workhorse and most popular of all programs, and we should be judicious in any changes we make to EQIP.

Fifth, we should look at ways to improve our conservation delivery system. The Technical Service Provider Program is broken, and we should look at ways to improve that program to ensure that we have enough technical capacity on the ground or, quite frankly, in the fields.

Sixth, we should ensure private working forest lands are a part of our Conservation Title. And I will look for innovative ways to include working forests into these programs.

In closing, I look forward to hearing from our witnesses. We have a great panel of witnesses today, and I look forward to continued

oversight of these programs to evaluate how these programs can continue to provide the conservation benefits it has for decades and hopefully can do that in a bipartisan way. I believe we can and I look forward to that instead of what has happened over the last 2 years.

And with that, Madam Chair, thank you, and I yield back.

The CHAIR. Thank you very much, the Ranking Member of the full Committee, and thank you for always coming to our hearings, participating, and continuing to be so focused on this title and the programs that are a part of it.

I am pleased to welcome our witnesses to the Subcommittee on Conservation and Forestry of the full Agriculture Committee today. Our first witness today is Mr. Michael Crowder, who is the President of the National Association of Conservation Districts.

Our next witness is Ms. Nicole Berg, who is the President of the National Association of Wheat Growers.

Our third witness is Ms. Lori Faeth, who is the Senior Director of Government Relations at the Land Trust Alliance.

And our fourth and final witness today is Mr. Shayne Wiese, a rancher from Iowa, and he is testifying today on behalf of the Iowa Cattlemen's Association and the National Cattlemen's Beef Association.

Thank you all for joining us today. You will each have 5 minutes to deliver your testimony. There is a timer that should be visible in front of you, and it will count down to zero, at which point your time has expired.

Mr. Crowder, please begin when you are ready.

STATEMENT OF MICHAEL CROWDER, PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS, WASHINGTON, D.C.

Mr. CROWDER. Thank you, Chair Spanberger, Ranking Member LaMalfa, Ranking Member Thompson. Thank you for the opportunity to join you today to discuss farm bill conservation programs. My name is Michael Crowder, and I serve as President of the National Association of Conservation Districts.

NACD represents America's 3,000 conservation districts across the nation and the 17,000 men and women who serve on their governing boards. Conservation districts are local units of government that coordinate with many partners at all levels to help millions of cooperating landowners and operators implement conservation practices. Producers are on the frontlines of maintaining global food security and protecting our country's natural resources. Conservation districts play a critical role in achieving these goals by providing producers with the resources and assistance they need to implement effective conservation practices and enhance their operations.

If there is just one message I want you to take away from my testimony today it is that voluntary, locally-led incentive-based conservation works. USDA conservation programs have helped producers and private landowners across the country reduce soil erosion, enhance water quality, air quality, reduce carbon emissions, and so much more on millions of acres. These benefits extend well

beyond the farm and have improved the environmental health of entire communities and regions.

Earlier this year, NACD established a Farm Bill Task Force, for which I chair, to assess conservation programs and to help Congress with development of the upcoming farm bill. Like NACD, our task force represents a wide range of agricultural operations, social demographics, and regions from across our country. The task force has held nearly a dozen meetings, during which members have shared their perspectives on administration of conservation programs and suggestions to improve them. The task force has also developed NACD's farm bill principles to guide the development of our policy recommendations and have submitted these 11 principles as part of my testimony today.

Throughout our meetings, members frequently express the need to support locally determined priorities. Our country's vast private lands differ greatly in respect to natural resources, production systems, and environmental conditions. This diversity requires strong, knowledgeable local leadership and the ability to adapt conservation programs to best fit producers' operations. We believe providing maximum flexibility to enable locally-led approach and limiting nationwide carve-outs will best facilitate the success of conservation programs in all parts of the country.

The task force has also raised concerns with one-size-fits-all policies. EQIP allows producers to select between more than 160 eligible conservation practices. This allows Midwest row crop farmers to implement cover crops or no-till, while Louisiana or California rice farmers can adopt practices to increase irrigation efficiencies. To be successful, producers need access to a comprehensive suite of conservation systems and practices.

Members of the task force also expressed a desire for Congress to examine conservation practice payments rates. With rising costs of labor and inputs, we need to ensure that producers are compensated fairly and that the payment rates reflect the real-time cost of implementing practices.

We also identified a need to simplify conservation programs and make their application process as simple and as clear as possible. NACD has heard from stakeholders across the country that navigating the CSP and RCPP programs can be complicated and cumbersome from both a producer standpoint and from administrative perspectives.

I would be remiss if I didn't mention conservation technical assistance. CTA is the bedrock of our conservation delivery system. The successful administration of these critical USDA conservation programs relies on effective conservation planning, a strong conservation workforce, and other resources that are supported by conservation technical assistance. As this Committee works to develop the 2023 Farm Bill, NACD looks forward to working on a bipartisan basis to support and strengthen these programs.

Thank you for the opportunity to testify this morning, and I very much look forward to your questions. Thank you.

[The prepared statement of Mr. Crowder follows:]

PREPARED STATEMENT OF MICHAEL CROWDER, PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS, WASHINGTON, D.C.

Introduction

Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee—thank you for the opportunity to join you today to discuss farm bill conservation programs.

My name is Michael Crowder and I serve as the President of the National Association of Conservation Districts (NACD). I have been the General Manager of the Barker Ranch in Eastern Washington State for 22 years and graduated from Purdue University with a master's degree in wildlife science and a bachelor's degree in natural resources and environmental science. Since 2002, I have been a partner of my third-generation family farm in Indiana, as well as an owner of farmland and conservation easements in Illinois.

I have spent my entire career working on conservation, agriculture, and wildlife science issues. On the Barker Ranch, we work closely with the Natural Resources Conservation Service (NRCS) on wetland conservation easements and wildlife habitat, as well as other practices such as prescriptive grazing, riparian fencing, and irrigation water management. I also served as an Adjunct Professor at Washington State University Tri-Cities for 8 years and taught classes in wildlife science, ecology, and wetland restoration at both graduate and undergraduate levels.

National Association of Conservation Districts

NACD represents America's 3,000 conservation districts, their respective state and territory associations, and the 17,000 men and women who serve on their governing boards. Conservation districts are local units of government established under state law to help administer natural resource management programs and are the essential local component of our country's conservation delivery system. Districts work closely with Federal and state conservation agencies to help millions of cooperating landowners and agriculture producers protect land and water resources across the United States. NACD's mission is to promote voluntary, locally adapted conservation efforts and the responsible management of natural resources on all lands by supporting locally led conservation districts and their associations through grassroots advocacy, education, and partnerships. Working in close coordination with our national partners at NRCS, the National Association of State Conservation Agencies (NASCA), the National Conservation District Employees Association (NCDEA), and the National Association of Resource Conservation and Development Councils (NARC&DC), we strive to empower and equip local conservation districts to be the leader and voice for conservation within their communities.

If there was one message I would want you to take away from my testimony today, it is that voluntary, locally led, incentive-based conservation works. USDA's working lands conservation programs have helped producers and private landowners across the country reduce soil erosion, enhance water and air quality, restore and protect land and wildlife habitats, reduce carbon emissions, and conserve water on millions of acres. These benefits extend well beyond the lands on which conservation practices are applied, and have improved the environmental health of entire communities and regions. Private landowners have taken advantage of the many different forms of assistance offered by these programs—including cost-share, land rental, incentive payments, and conservation technical assistance—to adopt and maintain effective conservation practices.

It is also important to recognize the demand for and availability of farm bill conservation programs. Currently, only about 1/3 of the applications producers submit for USDA working lands conservation programs are accepted and funded each year. That means approximately seven out of ten farmers who want to invest in the long-term health of their operations, maximize the efficiency of their inputs, increase profitability, and improve the environment in their communities are unfortunately turned away.

The recently passed Inflation Reduction Act (IRA) provides historic investments in these oversubscribed, voluntary, and incentive-based conservation programs. Although I do wish this funding could have been provided on a bipartisan basis, NACD looks forward to working with both sides of the aisle throughout the development of the 2023 Farm Bill to ensure that this funding is allocated appropriately and has a positive, long-term effect on conservation. The IRA currently provides substantial funding for USDA conservation programs over the next 4 years, which may pose administrative challenges for USDA and their partners. The 2023 Farm Bill provides Congress with an important opportunity to spread these conservation investments over a longer period of time, and to consider innovative ways to improve and modernize our conservation delivery system.

Conservation Technical Assistance

Conservation technical assistance (CTA) is a bedrock of our conservation delivery system. While funding for NRCS programs is critical to helping producers implement effective conservation practices on working lands across the country, the successful administration of these programs relies on effective conservation planning, a strong conservation workforce, and other resources that are supported by CTA. In order to transform the historic IRA conservation investments into meaningful, on-the-ground conservation, CTA must now play an even larger role. It was critical that the IRA included \$1 billion for CTA to provide these important resources. Trained technical staff will also be critical to providing sound planning, guided decision-making, and support for the design and implementation of conservation systems and practices at the field level. These technical staff play an enormous role in helping landowners implement targeted practices to achieve meaningful, on-the-ground results.

While NRCS requires strong staffing capacity to administer conservation programs, we also believe that Federal technical assistance funding can leverage state and conservation district resources to extend the reach of trained personnel with local expertise in agricultural operations and natural resource conservation. The 17,000 local conservation district supervisors across the country play a critical role in connecting landowners to Federal conservation programs and providing technical assistance to guide program administration, facilitate conservation planning, and help producers implement the most effective practices. There are also additional conservation partners that can be leveraged to ensure that producers are provided with the technical support they need in all areas of the country.

Farm Bill Task Force

Earlier this year, NACD began its 2023 Farm Bill policy development process by establishing a Farm Bill Task Force. I am proud to serve as the Chair of this task force. Like NACD, the Farm Bill Task Force consists of members representing a wide range of agricultural operations, social demographics, and regions from across our country. The diversity of the Task Force will help to ensure a comprehensive review of Federal conservation programs and facilitate thoughtful consideration of policy changes to strengthen their administration. Overall, our mission is to help craft a 2023 Farm Bill that supports locally led conservation and supports producers in voluntarily implementing the best conservation practices on their lands.

In April, NACD's Farm Bill Task Force published a set of broad policy principles to guide the development of our farm bill policy recommendations. These principles are attached as part of my written testimony. Several of these principles are fundamental to NACD's mission. For example, our first principle; "The Locally Led, Voluntary Incentive-Based Conservation Model Works," reflects one of NACD's core beliefs. The task force also felt very strongly about including a principle focused on supporting diversity, equity, and inclusion in the upcoming farm bill. This principle reinforces our belief that farm bill conservation programs should be available to and accessible by people from all backgrounds and areas of our country. As producers continue to experience significant disruptions caused by market conditions, international conflict, and climate change, the Farm Bill Task Force also felt it was important to include a principle stating that agricultural operations need to be economically viable for our conservation model to be successful. With rising uncertainty, we also need to ensure that producers are provided a proper safety net.

NACD maintains a longstanding commitment to mitigate the serious threats posed by climate change and recognizes that conservation districts will continue to play a critical role in advancing solutions. Last year, NACD established a Climate Action Task Force to identify and support policies to expand the adoption of conservation practices that bolster resilience, reduce carbon emissions, and improve the health of ecosystems across the country. The task force found that providing additional support for conservation planning and technical capacity is critical to helping districts and landowners implement these conservation practices. To further support this goal, our Farm Bill Task Force adopted a principle supporting a 2023 Farm Bill that ensures farmers, ranchers, and forest owners are provided with the resources they need to implement and maintain practices that mitigate the impacts of climate change.

These principles also support an increase in conservation funding, a commitment to the working lands conservation programs, working to address climate change, effective education of and outreach to producers, and addressing administrative barriers in farm bill conservation program application processes, among other priorities. The Farm Bill Task Force has held nearly a dozen meetings, during which members have shared their perspectives on the administration and effectiveness of USDA conservation programs. Although the task force has not yet released final

2023 Farm Bill policy recommendations, I am happy to share some of the sentiments and suggestions that have been raised during our meetings, and outline some of NACD's existing policy positions. However, I will note that the perspectives I provide today do not represent the final, official positions of NACD's Farm Bill Task Force. NACD looks forward to providing comprehensive 2023 Farm Bill policy suggestions in the coming months.

2023 Farm Bill Policy

Throughout our Farm Bill Task Force discussions, members often expressed that specific carve-outs and limitations of practices within USDA conservation programs pose challenges for locally led conservation efforts. From Maine to Hawaii, and Alaska to Puerto Rico, America's vast private lands differ greatly in respects to their natural resources, production systems, and environmental conditions. This diversity requires strong local leadership and the ability to adapt conservation programs to best fit producers' farms, ranches, or forestlands. Providing maximum flexibility to enable a locally led approach and limiting nationwide carve-outs will best facilitate the success of Federal conservation programs in all parts of the country.

The task force also raised concerns with "one-size-fits-all" policies within Federal conservation programs. The Environmental Quality Incentives Program (EQIP) allows producers to select between more than 150 eligible conservation practices. This allows Midwest row crop farmers to implement cover crops or no-till, while Louisiana rice farmers can adopt practices to increase irrigation efficiency. We need producers to have access to a comprehensive suite of conservation systems and practices that can facilitate incremental improvements across distinct operations and environments.

Members of the task force also expressed a desire for Congress to examine conservation practice payment rates, and the methodology NRCS uses to determine rates across all programs. With rising prices, we need to ensure that producers are compensated fairly and that payment rates reflect the real-time costs of implementing practices over the course of multi-year contracts. This is particularly important to consider in the context of supporting beginning and socially disadvantaged farmers.

Below, I have provided additional perspectives that reflect NACD's existing policy and some of the Farm Bill Task Force's preliminary suggestions regarding specific USDA conservation programs. Again, it is important to note that these views do not represent NACD's final 2023 Farm Bill policy recommendations.

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is currently the most popular and locally adaptable working lands program in NRCS' conservation toolbox. Considering its importance, NACD encourages this Committee to carefully consider any proposed changes to the program. We firmly believe that EQIP's success can be largely attributed to the program allowing local work groups and state technical committees to prioritize local natural resource concerns and identify the most effective practices to address them. Carve-outs within EQIP—even those targeting important conservation concerns and other issues—often make the program less flexible for producers in different parts of the country. While these carve-outs do help to address important resource concerns and can produce positive results, they often produce the unintended consequence of eroding the local decision-making process led by conservation districts. NACD strongly believes that local input and expertise must inform the prioritization of resource concerns within EQIP, as opposed to mandating nationwide priorities and requirements.

In the 2018 Farm Bill, Congress authorized Conservation Incentive Contracts (CIC) within EQIP, which have great potential to expand the adoption of effective climate-smart and drought resilience practices. While this new subprogram has only been fully available to producers this year, NACD believes that Congress should provide more direction for the program in the upcoming farm bill. Overall, we believe that the simplicity and on-farm scalability of the CIC program, paired with its longer-term contracts, provide great opportunities to help producers implement meaningful conservation practices.

Conservation Reserve Program

The Conservation Reserve Program (CRP) has been an essential tool in USDA's conservation tool belt for decades. Now, 37 years after the program was established, we believe Congress should evaluate its role to ensure that the program properly fits into a modern-day conservation title. Following recent economic challenges and disruptions to international food production, Congressional leaders have raised valid points regarding the inclusion of prime farmland in the program. While NACD does not support removing existing CRP acres, we must ensure that the focus of the pro-

gram continues to be enrolling only the most environmentally sensitive land and buffers that facilitate continued agriculture production on adjacent farmland.

NACD also believes that the program should expand producers' ability to utilize haying and grazing, and that emergency haying and grazing should be evaluated to ensure that it meets producers' critical forage needs in a timely manner, and without harming resources. We also need to ensure that the program is as locally led as possible, and that the enrollment supports producers' overarching conservation systems. CRP has been administered at the national level since the inception of the program and has provided a growing number of nationally defined administrative and statutory options for producers. Looking forward to the 2023 Farm Bill, we need to ensure that CRP provides adequate support for each state's unique needs.

Conservation Stewardship Program

NACD is a strong advocate for the Conservation Stewardship Program (CSP) and has longstanding policy supporting the program. CSP plays a critical role in maintaining and improving existing conservation systems by encouraging producers who have already adopted conservation on their lands to implement additional conservation practices that complement existing efforts and improve the efficiency of their operations as a whole.

However, our members have heard from administrators, partners, and producers across the country that the program can be extremely complicated and cumbersome from both a producer standpoint and from an administrative perspective. While the program has many positive qualities—including rewarding early adopters with payments and eligibility—producers have also expressed that the effectiveness of individual state and local offices plays an outsized role in facilitating a producer's participation in the program. Considering, it may be worthwhile for Congress to explore simplifying CSP's application process.

Regional Conservation Partnership Program

NACD and our Farm Bill Task Force members recognize the significant conservation benefits provided by the Regional Conservation Partnership Program (RCPP). When the RCPP was first proposed, stakeholders expressed concerns that projects could lack local involvement, and that some projects may not address the most appropriate local resource concerns. Today, a significant number of conservation districts are involved in RCPP projects as both sponsors and core partners with other organizations. The program's ability to leverage non-Federal resources, including staff and funding, has also increased conservation opportunities for our agricultural producers across the country. However, many partners have expressed that the program needs to be simplified and streamlined to reduce complexity and improve administration. One common critique of the program is that it takes too much time for accepted RCPP projects to break ground. NACD looks forward to working with partners and Congress to explore ways to expedite project implementation.

P.L. 83-566

NRCS' Watershed and Flood Prevention Program, commonly referred to as P.L. 83-566, authorizes local partners to plan and install watershed protection and improvement projects in watersheds across the country. The program has become an increasingly important tool in helping rural communities adapt to weather volatility, create climate resilience, and reduce risks posed by catastrophic weather events. The additional \$50 million in mandatory annual funding provided by the 2018 Farm Bill allowed NRCS and project sponsors to better plan and administer projects in many parts of the country. Conservation districts are an important partner in the administration of this program and have sponsored most of the P.L. 83-566 projects throughout the country. NACD supports the program and looks forward to working with partners to ensure that the P.L. 83-566 receives the funding and support it requires. As thousands of dams across the country reach or exceed their designed lifespans, it is also critical that we support NRCS' Watershed Rehabilitation Program in the 2023 Farm Bill.

Conclusion

The historic conservation funding included in the IRA has provided us with an unprecedented opportunity to strengthen agricultural operations, bolster resilience, reduce harmful emissions, and improve the quality of our water, land, and air. It is critical that we work on a bipartisan basis to develop a 2023 Farm Bill that supports strong and stable conservation policy, helps our producers, and protects the environment for all Americans. Farm bill conservation programs are critical to our nation's food security, biodiversity, and the sustainability of our farms, ranches, and

forests. This farm bill provides a once in a generation opportunity to strengthen conservation efforts on our working agricultural landscapes.

The historic funding in IRA also raises new administrative challenges. Overcoming these challenges will require close coordination between USDA, Congress, states, producers, and partners, including conservation districts. These new investments will also necessitate strengthening our Federal and local conservation workforces. As this Committee and Congress work to develop the 2023 Farm Bill, I would like to reemphasize that voluntary, locally led conservation works, and is the most viable way to support America's producers and protect our environment. NACD looks forward to working with Members of this Committee and all stakeholders to find ways to enhance the delivery of USDA conservation programs through the conservation title of the 2023 Farm Bill.

Again, thank you for the opportunity to testify today. I look forward to your questions.

ATTACHMENT

NACD Farm Bill Principles



Principle 1: The Locally-Led, Voluntary Incentive-Based Conservation Model Works

NACD strongly believes in the locally-led, voluntary, incentive-based model for addressing natural resource concerns; not a one-size-fits-all regulatory scheme. Farm bill conservation programs should be locally-led and resource-driven with sufficient flexibility to direct funding to local priorities and concerns. Program priorities, rules, and policies should be tailored and adapt to the natural resource needs of states and local areas. Local conservation district boards, local working groups, and state technical committees are essential to identifying local needs, maximizing conservation benefits, and setting priorities for program delivery.

Principle 2: Increase Conservation Title Funding in the Farm Bill

Farm bill conservation programs are key to addressing natural resource concerns like water quality and quantity, soil health, clean air, climate change, habitat protection, and more. Moreover, these locally-led, voluntary, incentive based programs increase the productivity of producers' operations and strengthen food security. Unfortunately, due to a lack of resources, these programs are unable to accept the vast majority of producers who apply to participate. Increased mandatory funding for the conservation title is critical to sustaining our nation's working lands and building a resilient food supply. NACD believes these proven, science-based programs need robust new funding.

Principle 3: Diversity, Equity, and Inclusion

Technical and financial assistance should be available to all agriculture producers, and barriers that prevent historically underserved producers from accessing these tools should be addressed. The farm bill should help historically underserved farmers, ranchers, and forest stewards access these resources by supporting effective program outreach, advanced payments, increased payment rates, regulatory and programmatic flexibilities, and other tools that incentivize and encourage participation. Outreach, program rules, and program policies for underserved communities should be prioritized and tailored to these communities.

Principle 4: Commitment to Working Lands

Landscapes across the nation vary in their resource concerns, and farm bill conservation programs must continue to meet the specialized needs of the agricultural producers who work these lands. Given that food security is directly tied to national security, programs must provide technical and financial assistance to implement or

maintain conservation practices on working lands that produce much needed food, fiber, forest products, and fuel while at the same time protecting our natural resources.

Principle 5: Technical Assistance and Conservation Planning are the Bedrock of the Conservation Model

Technical assistance and conservation planning are critical tools and the first steps in evaluating producers' resource needs. NRCS, with assistance from partners such as conservation districts, helps agricultural producers plan and apply conservation practices on the land. They develop conservation plans; plan, design, lay out, and install conservation practices; and inspect completed practices for certification. The farm bill must provide sufficient funding for technical assistance to deliver a full complement of science-based technical services to farm bill conservation program applicants and participants.

Principle 6: Agricultural Operations Need to be Economically Viable

In order for the locally-led, voluntary, incentive-based model to be successful, NACD believes agricultural operations need a strong safety net, robust marketing opportunities, and supportive farm policy. Without viable agricultural operations, districts will not be able to help install conservation practices on the ground. The farm bill must adapt to the agriculture production environment and work for each facet of the nation's diverse agriculture industry.

Principle 7: Climate Change

Climate change is threatening communities around the world and governments are prioritizing the development and implementation of policies to quickly address this serious issue. U.S. farmers, ranchers, and private forest landowners are on the frontlines of climate change. More frequent storms, longer droughts, larger wildfires, and more damaging floods pose serious threats to communities across the country, hurt producer's bottom lines, and threaten our food supply.

These producers, with the help of partners such as conservation districts, are uniquely positioned to be part of the solution and in many cases have already adopted conservation practices that promote resource sustainability, resiliency, carbon sequestration, and protect ecosystems. However, the vast majority of producers who step forward to implement these practices by applying to participate in voluntary USDA conservation programs are turned away because of insufficient resources. Congress should ensure that farmers, ranchers, and forest owners are provided with the resources they need to maintain and implement practices that mitigate the impacts of climate change.

Principle 8: Farm Bill Education and Outreach is Necessary

NACD believes conservation education is a necessary tool to drive more conservation adoption. If producers are not aware of the tools available to them, then the adoption of conservation practices will suffer. This is especially the case with beginning, socially disadvantaged, and limited resource farmers. NACD supports language within each Title II program directing technical assistance to advance local conservation adoption and outreach.

Principle 9: Streamline and Simplify Conservation Programs/Application Process to Reduce Administrative Burdens

Conservation programs and the application process should both be simple and easy to understand. Administrative burdens that disincentivize program participation and impair the timely adoption of conservation practices within the appropriate agriculture production cycle should be eliminated. Requirements that complicate the conservation delivery system, create lengthy approval processes, or take time away from NRCS staff, prevent producers with the greatest resource needs from applying for conservation programs.

Principle 10: Forestry

NACD supports a forestry title that addresses the unique complexities of forestry on nonindustrial, private forest land, and the effective management of Federal and state forest lands. NACD encourages an expansion of technical assistance and outreach to nonindustrial private forest owners, especially landowners not currently engaged in conservation or implementing a management plan on their lands. Land managers require support to ensure the full suite of management tools are available to improve the health and sustainability of our nation's forests and mitigate the threats posed by wildfires across the country. NACD also supports addressing issues identified by state forest resource assessments and state wildlife action plans, and supporting agroforestry through the farm bill.

Principle 11: New Approaches and New Technologies

Working lands conservation is not a static concept, but is constantly changing and adapting as new technologies are introduced and partnerships are formed. As such, the farm bill should reflect new developments in conservation, including those made in urban agriculture, drone technology, water conservation, and precision application.

The CHAIR. Thank you very much, Mr. Crowder.

Ms. Berg, please begin when you are ready. You have 5 minutes.

**STATEMENT OF NICOLE BERG, PRESIDENT, NATIONAL
ASSOCIATION OF WHEAT GROWERS, PATTERSON, WA**

Ms. BERG. Chair Spanberger and Ranking Member LaMalfa, thank you for the opportunity to testify today before the Subcommittee. I am Nicole Berg, a fourth-generation farmer from Paterson, Washington. I work in partnership with my father and my brothers, and we grow dryland irrigated winter wheat, blue grass seed, field corn, sweet corn, sweet peas, green beans, and alfalfa. I currently serve as President of the National Association of Wheat Growers, a federation of 20 state associations and other industry partners.

In my area in Washington, conservation is essential to our farming operation, living and farming in the driest area in the world that grows cereal grains. With only 6" of rainfall a year, conservation farming helps us maintain soil moisture and efficient use of natural resources. EQIP has helped us put in a fertilizer tank containment system and install irrigation water management equipment on our irrigated farmland. We utilize CRP on our dryland acres to create contours in the field, protecting the soils from wind erosion. In our dry, windy climate, we take multiple actions to protect the soil from erosion, including the use of no-till.

The 2018 Farm Bill maintained a strong commitment to voluntary, incentive-based conservation programs. The NRCS programs continue to be oversubscribed with less than ½ of all applicants receiving NRCS funding nationwide. Reviewing wheat growers' use of NRCS programs between 2018 and 2021, wheat farmers entered over 7,500 contracts. Over the same period, there were 5,000 valid applications from wheat growers that went unfunded.

There is continued demand and need for voluntary conservation programs in the farm bill, and we must make sure that the programs continue to be flexible and allow farmers to maintain economic viability in their farming operations.

The benefits of the farm bill conservation programs are significant in terms of the environmental benefits and the assistance to farmers. The technical assistance, planning and engineering, and financial assistance in the form of cost-share or incentives provide farmers with the knowledge and economic incentive to make a change in their operation or maintain a conservation practice. Some of the challenges for wheat growers in utilizing conservation programs are typically diversifying the crops grown, low rainfall, complexity of programs, and transparency of the program requirements.

Included in my written testimony is a list of concepts for the next farm bill, and I will highlight just a few. First, we would like to improve the flexibility of conservation programs and expand conservation opportunities to early adopters and conservation manage-

ment systems. Wheat is grown in almost every state in the U.S., but the crop rotations, climate, varieties of wheat, variety across each state, they vary differently. As you develop farm bill policy, please remember that one size does not fit all when it comes to conservation.

Second, clearly articulate program changes so farmers understand farm bill modifications and other administration changes. As policies are developed through the farm bill reauthorization process or even administration changes programs are implemented, these changes should be transparent and clearly articulated to farmers.

Third, recognize the diversity of cropping systems, benefits of crop rotations, and timing of planting. Over the past 2 years, USDA offered a Pandemic Cover Crop Program that provides a discount to crop insurance for planting cover crops. When this program was introduced, winter wheat producers were not eligible for the program because the cover crop had to be planted over the winter, the same time our wheat is in the ground.

Fourth, review cost-share rates and payment limits due to the rising cost of inputs. The cost of farming has increased, and it will continue to do so. While commodity prices have decreased recently, input costs remain high, with farmers facing higher costs in all areas of their operation, and the decision to adopt conservation practices can depend on the financial assistance the farm bill programs provide.

Fifth, expand training and mentoring and encourage retention of USDA field employees. The last few years have been difficult with the changes to the programs in the 2018 Farm Bill, some of which were substantial, maintaining through the COVID-19 and training new staff and the challenge of leadership in FSA offices.

In conclusion, Wheat Growers support continued access to voluntary incentive-based conservation programs in the farm bill. Wheat Growers, the environment, and society have benefited from these programs through improved water quality and quantity, air quality, soil health, and habitat. These would not be possible without the financial and technical assistance that the farm bill conservation programs provide.

Thank you again for the opportunity to testify.

[The prepared statement of Ms. Berg follows:]

PREPARED STATEMENT OF NICOLE BERG, PRESIDENT, NATIONAL ASSOCIATION OF WHEAT GROWERS, PATTERSON, WA

Chair Spanberger and Ranking Member LaMalfa, thank you for the opportunity to testify today before the Conservation and Forestry Subcommittee of the House Agriculture Committee on behalf of the National Association of Wheat Growers (NAWG). I am Nicole Berg, President of the National Association of Wheat Growers and a fourth-generation farmer, working in partnership with my father and brothers on our family farm in Paterson, Washington. This year my nephews returned to the farm and are joining us in working on the family farm. On our operation, we grow dryland and irrigated winter wheat, blue grass seed, field corn, sweet corn, sweet peas, green beans, and alfalfa. I just recently ended my time on the Benton County conservation district, after over 10 years of serving on the board. In 2020, I was appointed to the Federal Crop Insurance Corporation Board of Directors, and I also serve on the Community First Bank Board of Directors.

NAWG is a federation of 20 state wheat grower associations and industry partners that work to represent the needs and interests of wheat producers before Congress and Federal agencies. Based in Washington, D.C., NAWG is grower governed and works in areas as diverse as Federal farm policy, environmental regulation, the

future commercialization of emerging technologies in wheat, and uniting the wheat industry around common goals. Our members feel it is important to provide testimony before the Conservation [and Forestry] Subcommittee of the House Agriculture Committee today as we reflect on the programs authorized under Title II of the Farm Bill. The conservation title of the farm bill plays an important role in establishing and funding voluntary, incentive-based conservation programs.

Conservation is essential to our farming operation. Living and farming in the driest area in the world that grows cereal grains—with only 6" of rainfall a year—conservation farming helps us maintain soil moisture and efficiently use our natural resources. Our farm used several different conservation programs over the years and while we see the benefits of participating in the programs, there are also challenges. The Environmental Quality Incentives Program (EQIP) helped us put in a containment fertilizer tank on the farm. This helps us protect the environment in case of any accidental spill which would be contained based on the design of the tank. The extra storage has also allowed us to manage through the high fertilizer prices and supply chain issues over the past 2 years. We also utilized the program to install irrigation water management equipment on our irrigated farmland. This new equipment allows us to have a more targeted water application and only use water where it is needed by managing water application in real time, mapping the soils and assessing the water needed. Prior to installation of this technology, we were only able to measure water capacity once a week. Real time water application assessment is, much more efficient, resulting in water savings. In my area of Washington State, we have hurricane to tropical storm force winds that blow across the farm, and we take multiple actions to protect our soil from erosion. We utilize the Conservation Reserve Program (CRP) on our dryland acres to create strip or contour farming with strips of CRP in the field, protecting the soils from wind erosion. We also practice no till farming on our dryland and irrigated operations.

Wheat Growers' Use of Conservation Programs.

The 2018 Farm Bill maintained the strong commitment to voluntary, incentive-based conservation programs. The [Environmental] Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), the Conservation Reserve Program (CRP), and the Regional Conservation Partnership Program (RCP) have been utilized by wheat growers across the county. Reviewing wheat growers' use of the Natural Resources Conservation Service (NRCS) delivered programs over the last few years, we found that wheat growers predominantly use the EQIP and the CSP, with a few growers working through RCP projects. Between 2018 and 2021, wheat farmers entered over 7500 contracts with NRCS through these conservation programs. Looking at the use of these programs across all states, several of the top conservation practices wheat growers are adopting through the programs include cover crops, pest management, nutrient management, tillage management, terraces and grassed waterways. The flexibility and local decision making included in the farm bill conservation programs is vital to their success. The specific actions that individual wheat farmers take under those practices can vary across their specific operations. The way I manage my farm in Washington state, the crops in the rotation, the timing of planting, the weather conditions, the crop protection tools, and nutrient management strategies will vary from wheat farmers along the east coast in Virginia, or Texas or South Dakota.

Wheat farmers transitioned from traditional tillage to no-till by using CSP which provides support for growers to be able to purchase specialized drills for no till wheat planting. Growers can also transition to different spray nozzles to reduce spray drift during pesticide applications. Conservation programs aid in the transition to new technologies, GPS aided precision technology that allows us to be more efficient in our farming operations.

The EQIP continues to be popular with wheat growers by allowing growers to undertake specific conservation practices, develop management plans or utilize the new longer term incentive payments. EQIP has been the most flexible program, allowing growers to utilize one or multiple practices that make sense for their operation.

The CRP is an important option for growers in Washington State, but within our Association, can be controversial depending on the area of the country. Farmers do not want to compete with the Federal Government when renting land, and we must make sure that beginning farmers and ranchers have access to affordable land and CRP is often cited as competition for these new farmers. Focusing on enrolling environmentally sensitive, highly erodible land in CRP should allow for the protection of fragile lands at risk of erosion and allowing other lands to be farmed. The changes made in the 2018 Farm Bill lowered rental rates, capped cost-share for seed and eliminated financial assistance for mid contract management. Each of these

changes added costs to farmers to participate and with all these costs going up, the program is not getting the same interest from farmers it once did.

The benefits of the farm bill conservation programs are significant. The technical assistance, planning and engineering and financial assistance in the form of cost share or incentives, provide farmers with the knowledge and economic incentive to be able to make a change in their operation or maintain a conservation practice. Some conservation practices have an unknown impact on the farming operation or are too costly to undertake without financial assistance. The programs also provide substantial environmental benefits, helping to mitigate the impacts of climate change, providing healthier soil, clean air, clean water and improved habitat.

Some of the challenges for wheat growers in utilizing conservation programs is typically the diversity of the crops grown, low rainfall, complexity of programs and transparency of the program requirements (or changes from year to year). Growers are diversifying their farming operations and that diversity of crops and management systems can make implementing a conservation practice on an entire operation difficult. The low rainfall areas and dryland operations have limited options when participating in conservation programs. The diversity of small grains planted in northern regions and conservation crop rotations should be reviewed to make sure growers have continued access to conservation programs.

Many wheat farmers undertook the switch to no-till many years ago, investing in new equipment and managing their operations to protect the soil from wind and water erosion. Today, some of those same growers are seeing herbicide resistant weeds on their operation that could require different management strategies that may include tillage to eradicate the weeds. Growers must have continued access to a variety of herbicides and other crop protection tools to help maintain long term conservation practices.

Conservation programs also getting increasingly complex. The 2018 Farm Bill included significant changes to CRP and the changes to the program have not been transparent during the implementation. Additional outreach and education on the program changes and opportunities for growers is needed to aid in program enrollment. In addition to outreach for growers, we encourage USDA to ensure that Farm Service Agency (FSA) and NRCS have full understanding of the programs and any changes that are made to the program prior to sign-up. Some program changes are happening on an annual basis, making it difficult for both staff and growers to keep up with the changes.

The farm bill conservation programs continue to be popular, with less than ½ of all applications receiving NRCS funding. Wheat growers are no exception, with more wheat growers seeking assistance through the farm bill conservation programs than can be funded. Between Fiscal Years 2018 and 2021, there were 3,000 valid applications for EQIP by wheat growers that went unfunded. Over that same period there were over 2,000 valid applications for CSP by wheat growers that went unfunded. Additional applications through RCPP also went unfunded over those years. Clearly there is continued demand and need for voluntary conservation programs of the farm bill, but we must make sure that programs provide flexibility and allow growers to maintain economically viable farming operations.

Benefits of Growing Wheat

Wheat production across the United States is varied, from the climate, soil, rotations and most importantly the type of wheat and end-use markets for the wheat produced. As a crop that is primarily destined for the food supply the *quantity* and *quality* of the wheat we produce is equally important. The six classes of wheat have a variety of end-uses—whether it is pizza, pasta, bread, cakes, or crackers—each product has characteristics that rely on a different type of wheat and a different protein content in the wheat and flour. Some wheat—winter wheat—is planted in the fall and harvested in the following summer and some—spring wheat—is planted in the spring and harvested a few months later in the summer.

There are several benefits of growing wheat. Wheat improves soil quality, protects the soil from erosion and reduces weed pressure when added to a crop rotation. Winter wheat provides living plant cover over the winter months. The wheat straw residue left on the field provides a durable residue cover to protect the soil from wind and water erosion. In certain regions, winter wheat can be added to a corn-soy rotation adding a third crop over the 2 years and providing a living cover over winter and additional economic revenue from adding a wheat crop. Due to the war in Ukraine, USDA has been working in areas of the country to expand double cropping by increasing the flexibilities and applicability of crop insurance for double cropping counties.

Like many areas of U.S. agriculture, wheat growers are producing more with less. Over the last 100 years, wheat yields have increased 3½ times with about ⅔ the

acres in production. There is not a commercially available genetically modified wheat and we have not had the level of research and advancement in wheat research that other crops have experienced over the last 25 years. Wheat growers depend on different management strategies including diverse crop rotation, conservation practices, research and breeding including new hybrid wheat varieties, and crop protection tools. Technical assistance from Land-Grant University wheat research programs, extension programs, USDA and conservation district employees, and private agronomists are needed to make these systems work and allow growers to make ongoing improvements to their cropping systems.

Wheat growers value the long-term productivity of the soil and natural resources that sustain our farming operations. Climate-smart and regenerative agriculture cropping systems for wheat production must recognize the environmental and economic realities of individual farms, be regionally specific, provide for enhanced productivity or resource use efficiency and support the principles of soil health including minimizing soil disturbance, providing soil cover through crop residue, increasing diversity, maximizing the time with living roots and when applicable, incorporating livestock—all as appropriate for individual farms. We acknowledge that not all practices will work for all wheat growers and any policies must be flexible and recognize the uniqueness of each farming operation and the climate conditions and production systems of that operation.

As we look to develop new conservation, climate-smart, or regenerative agriculture policy and programs, these approaches must work in partnership with individual farms and help growers balance the economics with environmental and societal benefits by incentivizing new approaches and management systems. To foster long-term environmental benefits, farmers should also be incentivized to maintain and enhance these management practices over time. Regenerative agriculture systems on our operations means that wheat growers strive to:

- Maintain an economically viable and productive farming operation to pass to future generations.
- Maintain and build soil health.
- Enhance resource use efficiency.
- Utilize crop protection tools when necessary to treat weed, pest and disease infestations, combat weed resistance and manage conservation tillage systems.
- Provide societal benefits such as sequestering carbon, improving water quality, controlling soil erosion, and reducing overall inputs and energy use all while growing healthy, nutritious food

Preparing for the Next Farm Bill

Looking to the next farm bill, NAWG members are discussing recommended changes to the conservation programs. NAWG does not yet have specific policy recommendations finalized, but we are actively getting feedback and looking at policy options. Some of the elements of the programs that we have discussed so far are what might be considered the fundamental building blocks for the conservation title of the next farm bill:

- Maintain the voluntary, incentive-based conservation programs
- Improve the flexibility of the conservation programs
- Clearly articulate programmatic changes, so farmers understand farm bill modifications or other administrative changes
- Expand conservation opportunities for early adopters of conservation management systems
- Recognize the diversity in cropping systems, benefits of crop rotations and timing of planting
- Use the conservation title of the farm bill to deliver conservation assistance
- Avoid expansion of conservation compliance requirements
- Review cost-share rates and payment limits due to the rising cost of inputs
- Expand training and mentoring for USDA field employees
- Reliable access to crop protection tools is needed to maintain conservation systems

As outlined earlier in this testimony, wheat growers and other crop, livestock and forest landowners are seeking assistance through the voluntary conservation programs and there is a backlog of more growers seeking assistance than funding (and staff time) available. We recognize that the Inflation Reduction Act added a significant amount of funding to these programs and hopefully that backlog will be ad-

dressed, and we urge Congress to continue the commitment to voluntary, incentive-based conservation programs in the next farm bill.

Wheat is grown in most states in the U.S., but the crop rotations, climate and varieties of wheat vary greatly across the states. There are six different classes of wheat, with winter wheat making up the majority of the wheat grown in the U.S. For conservation programs to work well in each of these regions and states, they programs must provide a variety of options and be flexible to work within different types of farming operations. Dryland farming practices are lacking in conservation options because we have already adopted no till and several other practices. Conservation programs should be looking towards the next technology, innovation and practice to expand the conservation opportunities for early adopters of conservation management systems such as no till. Growers that adopted conservation tillage or no till several years ago are looking for the next option. As you develop farm bill policy, please remember that one size doesn't fit all when it comes to conservation (or even wheat production). Farmers need a variety of program and conservation practice options to allow them to find the conservation approach that makes economic and environmental sense for their operation.

As policies are developed through the farm bill reauthorization process, or even administrative changes to programs are implemented, those changes should be transparent and clearly articulated to growers. Explanations of programs and policy changes should be clear for growers to understand what elements have changed and why alterations were made. Some changes may impact a grower's eligibility, payment or cost share rates, or ranking during the application process. Helping growers understand the changes will ease any enrollment and manage expectations on all sides.

The conservation programs should be used to deliver conservation assistance and new requirements for conservation compliance, or additional conservation requirements on commodity programs should not be included in the farm bill. Voluntary incentive-based programs work the best for delivering and encouraging conservation practice adoptions and we urge Congress to maintain this system of conservation delivery.

The costs of farming are increasing. As farmers we are getting more efficient in producing a greater yield on fewer acres in production, but the costs of doing business are increasing. Land, equipment and repair costs, input supplies, fuel, seeds and labor costs are all increasing, as are our health insurance and other traditional business costs. Commodity prices have experienced unprecedented volatility in recent months. Winter wheat prices soared from \$7.32 in February to \$13.45 in mid-May, then crashing back down to \$8.19 in early July. This volatility has never been seen before and threatened the marketing infrastructure in place for farmers. While commodity prices have decreased, input costs have remained high. These high prices also carry over into the adoption of conservation practices. These high prices also carry over into the adoption of conservation practices. With farmers facing higher costs in all areas of their operations, the decision to adopt conservation practices can depend on the financial assistance that farm bill programs provide. The cost share rates of the conservation programs, where limited in the statute, should be reviewed and the payment limits in statute should also be reviewed. Several of these provisions have been in place for decades, through many Farm Bills and are not reflective of the costs of doing business on the farm. Growers are managing larger acreage to become more efficient and spread their operation costs over a greater acreage on the farm.

Conservation programs must provide options for growers of diverse cropping systems and be flexible to work within those systems. Farmers are diversifying their crop rotations and producing different crops for a variety of reasons, whether to meet market demands, keep their ground covered throughout the year or experiment with systems, but the policy set by the farm bill must be flexible enough to recognize these continued changes and USDA must have the ability to deliver the programs in a manner specific to each farming operation.

Cover crop programs must recognize the timing of planting of crops, including winter wheat. Over the past 2 years, USDA offered a pandemic cover crop program that provided a \$5 per acre discount on crop insurance for planting cover crops. When this program was introduced in 2021, winter wheat producers were not eligible for the program, because the cover crop had to be planted over winter—the same time that our wheat was in the ground, and cover crops that were planted at other times of the year were not eligible. Changes have been made to the program to recognize the different timing of cropping systems and that cover crops may be planted outside the winter timeframe.

The last few years have been difficult for most office employees and USDA field office staff are no different. However, with the changes to programs from the 2018

Farm Bill, some of which were substantial—managing through [COVID–19], training new staff and the change of leadership in FSA state offices—the pressures in many field offices have placed added stress on staff. USDA field office staff have traditionally been very customer service focused and working cooperatively with farmers, but we are now seeing employees that don't have the training and understanding of the programs and local farming operations. We encourage USDA to increase the training and mentoring of the new employees to maintain that strong working relationship with farmers.

In conclusion, wheat growers support continued access to the voluntary, incentive-based conservation programs of the farm bill. We have benefited from the programs through the implementation of new management systems, technology and approaches to more efficiently use natural resources and become more efficient in our operations. We also believe the environmental and natural resource benefits of the programs are significant, improving water quality and quantity, air quality, soil health and habitat. However, the programs are becoming more complex while wheat growers' operations are also becoming more diversified and may be facing new management challenges. Innovation in agriculture is also rapidly developing new options for producers and staff must continue to stay abreast of the changes in agriculture and conservation programs should adapt to these new options for growers. Staff training on programs and local cropping systems is needed to implement the flexibility established in the farm bill conservation programs. Wheat growers value the ability to work with USDA and the House Agriculture Committee on the development and implementation of these important programs and we look forward to the reauthorization of the farm bill.

The CHAIR. That was perfect timing, Ms. Berg.

Ms. BERG. I have good staff.

The CHAIR. Thank you so much for your testimony. And I now recognize Ms. Faeth for 5 minutes.

**STATEMENT OF LORI FAETH, SENIOR DIRECTOR OF
GOVERNMENT RELATIONS, LAND TRUST ALLIANCE,
WASHINGTON, D.C.**

Ms. FAETH. Great. Thank you, Chair Spanberger, Ranking Member LaMalfa, Members of the Subcommittee, and Ranking Member Thompson. It is an honor to testify on behalf of the Land Trust Alliance and our 950 member land trusts. We are the voice of voluntary private land conservation, unifying the American ideals premised on initiative, landowner empowerment, and individual private property rights. Our members work with willing landowners, including farmers, ranchers, and foresters to conserve their land. This not only allows landowners to fulfill their goals, it also boosts rural economies and ensures working lands remain in family hands.

Land trusts have a long history of partnering with the USDA to help landowners utilize farm bill conservation programs. This partnership is vital to ensuring that working lands continue to produce food and fiber, provide habitat, protect watersheds, and serve as part of the climate solution. Working agricultural and forest lands are central to our nation's productivity and food security.

Unfortunately, we are losing working lands at an alarming pace, which is why the farm bill conservation easement programs are so critical. While all the farm bill conservation programs are important, the easement programs, like the Agricultural Conservation Easement Program, are the only ones that offer voluntary incentives to ensure working lands are not converted to other uses in the future. The money generated from the easement enables the landowner to pay off debt and reinvest in their farm or ranch. In addition, it can often make it easier for the landowner to resist outside

development pressure and transfer the property to the next generation. Farm bill easement programs are a good investment and make a significant contribution to the economy.

The Alliance works through our Farm Bill Working Group to understand how farm bill programs are working and to develop recommendations for statutory and administrative changes. Our working group is comprised of more than 100 land trust practitioners from across the country, who utilize farm bill easement programs to help landowners conserve their lands. They bring firsthand experience to our recommendations.

The Alliance celebrated the passage of the 2018 Farm Bill, which increased funding for ACEP. We thank you for what was accomplished in that bill. And although you provided a substantial increase in funding, it is still not meeting the demand from willing landowners who want to conserve their working lands with an easement. We strongly support an increase in funding for the ACEP program in the 2023 Farm Bill to meet this demand.

Beyond much needed funding, the 2018 Farm Bill included important policy provisions to make the program more effective and efficient, such as flexibility with the match requirement and removing the onerous ALE Plan requirement. The Alliance urges Congress to retain these important provisions and to provide additional clarification of intent through report language.

In addition, we believe there is a need to make the certified entity application and enrollment process work more efficiently. This will leverage agency resources and provide a more efficient and streamlined path to conserving working lands. We further recommend recognizing certified entities across all NRCS easement programs.

ACEP is a crucial tool for conserving farms and ranches but does not address working forested lands. We recommend enhancing the Healthy Forest Reserve Program to establish a standalone forest conservation easement program that ensures private forest land remains intact and in production, allowing them to continue providing the numerous benefits to rural and urban communities. Conservation of our working forest lands is critical, and funding for forest conservation easements must be in addition to funding for ACEP.

The Land Trust Alliance supports the Regional Conservation Partnership Program. It is a key tool for land trust to help protect farm and ranch lands, grasslands, wetlands, and forested lands. We want to see consistency in how easements are implemented whether through ACEP or RCPP. There is concern from the land trust community about the time it takes to get an easement approved through that program. We believe that only one easement has been closed under RCPP in the 4 years since the last farm bill was signed. Our Farm Bill Working Group continues to meet and explore options on ways the administration of this program can be improved, and we hope to work with this Committee to ensure that goal.

While I focused my testimony on the protection of working farmland, rangeland, and forestland, the Alliance supports all the programs in the Conservation Title. These investments provide a comprehensive portfolio of programs, enabling our farmers, ranchers,

and forest landowners to be the best possible caretakers of our soil and water resources while sequestering carbon and providing food, fiber, wildlife habitat, and the clean air that we breathe. The Alliance is happy to provide our complete set of 2023 Farm Bill recommendations and looks forward to working with the Committee to draft a strong bill that will ensure the future of our working lands. Thank you.

[The prepared statement of Ms. Faeth follows:]

PREPARED STATEMENT OF LORI FAETH, SENIOR DIRECTOR OF GOVERNMENT
RELATIONS, LAND TRUST ALLIANCE, WASHINGTON, D.C.

Alliance Overview

On behalf of our 950 member land trusts, the Land Trust Alliance appreciates the opportunity to participate in this hearing and share lessons learned from the implementation of the 2018 Farm Bill and recommendations for the 2023 Farm Bill.

Founded in 1982, the Land Trust Alliance (the Alliance) is a nonprofit corporation and national land conservation organization based in Washington, D.C., that works to save the places people need and love by strengthening land conservation across America. We are the voice of private land conservation, unifying the American ideals premised on personal initiative, landowner empowerment and individual private property rights. Our members have worked with enthusiastic landowners, including farmers, ranchers and foresters, in their communities to voluntarily conserve more than 61 million acres of land across our country, boosting rural economies by helping to keep working lands in working hands.

Land trusts have a long history of partnering with the U.S. Department of Agriculture (USDA) to help landowners utilize farm bill conservation programs. This partnership is vital to ensuring that working lands—farms, forests and ranches—continue to produce food and fiber, provide habitat, protect watersheds and serve as part of the climate solution.

Why the Farm Bill Is So Important

The farm bill conservation programs, taken in total, are the largest single Federal source of funding for private land conservation. Farm bill programs create significant opportunities for land trusts to permanently protect working farm and ranch lands, grasslands, wetlands and forests.

Central to our nation's productivity and food security are our working agriculture and forest landscapes and the stewards of those lands. Unfortunately, we are losing working lands at an alarming pace, which is why the farm bill conservation easement programs are so critical. While all the farm bill conservation programs are important, easement programs are the only ones that offer voluntary incentives and cultivate partnerships to ensure working lands are not irrevocably converted to other uses in the future. The Alliance recognizes the value of these programs, such as the Agricultural Conservation Easement Program (ACEP), as a critical tool for farmers, ranchers and foresters who want to ensure their working lands are forever in family hands. The easement programs enable land conservation organizations and state and local governments to work with landowners to exercise their private property rights in the best interest of them and their families. They are also an excellent investment in food security, an important tool for addressing climate change, and they make a significant contribution to our economy.

In 2018 Colorado State University issued a report on a study assessing the economic impact of the Agricultural Conservation Easement Program-Agricultural Land Easement (ACEP-ALE) (and predecessor programs) from 2009-2017. The report showed that in addition to leveraging state and private funding, landowners with an easement were more likely to change their agricultural practices to improve things such as crop rotation and irrigation. In addition, the \$80 million investment in ACEP-ALE to conserve more than 129,000 acres of farm and ranch land created 1,102 jobs and generated \$174 million in economic activity across the state. Every NRCS easement dollar invested Colorado generated \$2.19 in direct, indirect and induced spending.

Earlier this year, the Montana Association of Land Trusts released a report, "Working for Montana Agriculture," which showed similar results. The report evaluated the economic impact of the 92 ALE easements in Montana since the implementation of the 2014 Farm Bill. The \$109 million ALE investment in these easements protected 289,000 acres of farm and ranch land, yielded \$182 million in economic activity, and supported 1,057 jobs, largely in rural Montana.

These programs are matched with other funding sources to compensate willing landowners for the value of a perpetual easement, thus ensuring the lands will never become a strip mall or housing development. Instead, the lands will remain in agriculture, securing their ability to provide food, fiber, plant and wildlife habitat and healthy watersheds for our nation. The money generated from an easement enables the landowner to pay off debt and reinvest in their farm or ranch. In addition, it can often make it easier for the landowner to resist outside development pressures and transfer the property to the next generation. Farm bill easement programs are a good investment for our country.

Farm Bill Lessons Learned

The Alliance celebrated the passage of the 2018 Farm Bill, which increased funding for ACEP from \$250 million/year to \$450 million/year. We thank you for taking this action. This increase in funding rectified a budgetary gimmick used in the 2014 Farm Bill whereby funding was cut in half in the last year of the bill. While it was a substantial increase in funding, it is still not currently meeting the demand from willing landowners who want to conserve their working lands with an easement.

Beyond much-needed funding, the 2018 Farm Bill included important policy provisions to make the program more effective and efficient. One key provision of the 2018 Farm Bill allows landowner donations and expenses to satisfy the ACEP–ALE match requirement. This was extremely important to states such as Kansas, Texas and Alabama that lack meaningful statewide conservation programs, making it challenging to secure the required match. This has allowed meaningful participation from these states. Unfortunately, the Natural Resources Conservation Service (NRCS) did not fully follow through with Congressional intent and made cash match a national ranking criteria, thereby giving projects with a cash match an unfair advantage.

Another key provision was removing the requirement for an ALE plan. While requiring an ALE plan may have sounded good, it ignored the fact that ACEP–ALE easements are perpetual real estate transactions. Management practices can and must change as landowners work to maintain working lands in an ever-changing world. In addition, NRCS did not implement the ALE plan requirement consistently, and, in many cases, state NRCS staff were demanding very prescriptive plans as part of this real estate transaction. Many important farm and ranch lands went unprotected because landowners did not want the Federal Government telling them how to run their operations through a required and approved plan. Congress recognized this and removed the ALE plan requirement in the 2018 Farm Bill. Unfortunately, when NRCS published the final ACEP rule it gave states the authority to make an ALE plan a state-ranking criteria, which undermines Congressional intent.

The Alliance strongly encourages Congress to retain these important provisions and to provide clarification of intent through report language. Ensuring the agency doesn't create administrative barriers and burdensome procedures is even more important with the much-needed infusion of funding from the recently signed Inflation Reduction Act (IRA).

2023 Farm Bill

In 2017, the Alliance created the Farm Bill Working Group (FBWG), which is now comprised of more than 100 land trust practitioners from across the country who utilize farm bill easement programs to help landowners conserve their lands. The FBWG played a strong role in the development of the Alliance's 2018 Farm Bill recommendations and in monitoring implementation through comments on rulemaking and navigating hurdles as they arose. We have been gearing up for the 2023 Farm Bill and earlier this year began socializing our updated recommendations. Our 2023 Farm Bill recommendations reflect lessons learned from the implementation of the 2018 Farm Bill and are forward-thinking as we strive to meet challenges we face today, including increased food security concerns and the impacts of a changing climate.

Funding

As previously stated, we strongly support a significant increase in funding for the ACEP–ALE program. The IRA provides an increase in funding for ACEP over the next 4 years. The 2023 Farm Bill provides Congress with an important opportunity to spread these conservation investments over a longer period of time and avoid a post-FY26 steep drop-off in funding.

Retain Farm Bill 2018 improvements

As mentioned earlier, we must maintain important improvements that were made in the 2018 Farm Bill, including matching funds flexibility and removal of the onerous ALE plans.

Clarify Certification process and benefits

We also recommend enhancements to make the certified entity application and enrollment process work more efficiently. Certified entities were established in the 2008 Farm Bill, yet to date there are fewer than seven certified entities. We recommend clarifying the certification application and enrollment process and ensuring that accredited land trusts have a streamlined path to certification. Congress should make clear that the certification designation results in greater efficiency for program delivery with less direct agency involvement in all easement acquisition processes. We further recommend recognizing certified entities across all NRCS easement programs. This recognition could go a long way toward streamlining and accelerating the pace of getting critical conservation projects done.

Reduce barriers faced by historically underserved landowners

The Alliance strongly supports efforts to increase access to farm bill conservation programs for historically underserved landowners. We recommend strengthening this work by providing set-asides in ACEP for beginning, limited-resourced and socially disadvantaged farmers. ACEP, unlike other programs in the Conservation Title, has no such provisions to ensure these farmers have a fair shot at funding. In addition, a reduction in the match requirement or increased government share for land trusts working with these specific landowners would create a greater incentive for entities to work with landowners who might not otherwise participate in farm bill programs.

Enhance Healthy Forest Reserve to establish a Forest Conservation Easement Program

ACEP-ALE is a crucial tool for conserving farms and ranches but does not address working forested lands. Private forests comprise 58 percent of all forested land in the U.S. While the total area of forestland in the U.S. has been largely stable historically, private forests now face significant threats, mainly from conversion to housing and urban development. We recommend enhancing the Healthy Forest Reserve Program by creating a stand-alone Forest Conservation Easement Program that ensures private forestland remains intact and in production, allowing them to continue providing numerous benefits to rural and urban communities. Conservation of our working forestlands is critical to the future of our country and funding for forest conservation easements must be in addition to funding for ACEP.

Ensure the Regional Conservation Partnership Program (RCP) works for easements

The Land Trust Alliance has fully supported the Regional Conservation Partnership Program (RCP) in past Farm Bills and will continue to do so. RCP is a key tool for land trusts to help protect farm and ranch lands, grasslands, wetlands and forested lands and provides much needed flexibility for specialized easements not available through ALE or Wetland Reserve. Land trusts want to see consistency in how easements are implemented whether through ACEP or RCP. One way would be to ensure certified entities have the same benefits in ACEP and RCP. There is also a concern from the land trust community regarding the time it has taken to get easements approved through RCP. To our knowledge, only one easement has been fully closed under RCP in the 4 years since the last farm bill was signed. Our Farm Bill Working Group continues to meet and explore options to improve the administration of RCP and we hope to work with this Committee to ensure that goal.

Exempt ACEP from the Adjusted Gross Income (AGI) limitation

Unlike other conservation or financial assistance payments, compensation for the purchase of a conservation easement is not a subsidy payment but a conveyance of a private real property right. This means the landowner must give up something of value in exchange for the program payment. The Alliance encourages exemption from the AGI limitation for ACEP. Doing so would eliminate a bureaucratic barrier to bringing projects to closure. In addition to being cumbersome, the limitation prevents critical and sensitive lands from being protected. Focus should be on the protection of working lands, not the current owner.

Conclusion

While I have focused most of my testimony on the protection of working farm-lands, ranch lands and forestlands, I would be remiss if I did not reiterate my introductory comments in support of all the programs in the Conservation title. These investments provide a comprehensive portfolio of programs enabling our farmers, ranchers and forest landowners to be the best possible caretakers of our soil and water resources while providing food, fiber, wildlife habitat, carbon sequestration and clean air. In your deliberations of the 2023 Farm Bill and consideration of the

implications of the IRA funding for these programs, we hope to continue to work with you in a bipartisan manner to strengthen the efficiency and effectiveness of the Conservation title programs to benefit our nation's working lands and the private land stewards of these resources. The Alliance is happy to provide our complete set of 2023 Farm Bill recommendations and looks forward to working with the Committee to draft a strong bill that will ensure the future of our working lands.

The CHAIR. Thank you very much, Ms. Faeth.

And, Mr. Wiese, I welcome you here as someone who represents many wonderful cattle farms. It is a pleasure to have you join us. I work so frequently with the Virginia Cattlemen's Association, so I look forward to your testimony, and thank you for being here.

STATEMENT OF SHAYNE WIESE, MANAGER, OPERATIONS, WIESE & SONS: GOOD DOIN' BULLS; MEMBER, IOWA CATTLEMEN'S ASSOCIATION; MEMBER, NATIONAL CATTLEMEN'S BEEF ASSOCIATION, MANNING, IA

Mr. WIESE. Well, good morning, Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee. My name is Shayne Wiese, and I am honored to join you today. I am the fifth generation of my family's cattle ranch in west central Iowa, and we specialize in the production of high-quality Hereford bulls to sell to commercial cow-calf producers.

But beyond our production focus, our operation has a strong conservation history. Wiese & Sons, my family's cattle ranch, is even a past winner of the NCBA's Environmental Stewardship Award.

I am proud to represent NCBA and the Iowa Cattlemen's Association today. Cattlemen graze livestock on approximately 666 million acres across the United States, nearly $\frac{1}{3}$ of our nation's continental landmass. We strive to maximize the environmental, economic, and social sustainability of our operations. Through voluntary conservation programs, ranchers will continue to reach our shared conservation goals.

Conservation programs are one of the most visible and consistently important portions of the farm bill for cattle producers across the country. Many cattle producers' only nexus to farm bill-related services occur at their local NRCS and FSA offices. The 2018 Farm Bill created opportunities for cattle producers across the country but also new challenges.

Cattle producers employ various conservation practices, many of which were put in place by using NRCS programs such as EQIP. One important feature of EQIP has been its focus on livestock operations, and we appreciate the 50 percent funding designation for livestock-related practices in the 2018 Farm Bill. Federal funds spent on conservation are a good investment in our country's natural resources, and it is vital to ensure that livestock producers have access to these valuable resources for grazing and feeding management.

While the intent of EQIP is to make conservation funding and technical assistance as accessible to all producers, barriers to entry often disincentivize producers from using NRCS programs. Recently, my family's cattle ranch applied to receive EQIP cost-share funding, but after months of waiting, we gave up and completed a water infrastructure project without the assistance of the USDA. I see many other opportunities for our ranch to improve the land and environment with EQIP funding. By creating additional hurdles for

producers that want to use these programs, the Committee and USDA limit access while also limiting the government's ability to record our environmental improvements. I urge the Committee to support initiatives in the farm bill that allow NRCS programs to further innovation and commonsense land management.

Flexibility is key to ranchers' use of conservation programs. Ensuring that producers have the freedom to effectively manage their land goes beyond EQIP, stretching to other conservation programs like CRP. CRP has the potential to provide significant environmental benefit but currently fails to maximize its value. Changes made in the 2018 Farm Bill limit our ability to effectively manage CRP acreage with grazing.

Congress and the Administration have made clear their interest in integrating climate-smart practices in the agricultural industry. Grazing is a valuable tool in maximizing carbon sequestration, but it is not a tool that we are able to use on CRP acreage without penalty. Livestock graze mature, stagnant grasses and allow regrowth of green, carbon-capturing plants. Our ranch took some land out of CRP and transitioned it into our cattle rotational grazing system recently. We have seen improvements on all pastures due to more grazing options. Grazing access to CRP acreage will promote more opportunity for beginning ranchers to graze responsibly and provide existing pastures more rest and recovery during drought years. Furthermore, grazing should be included as a CRP mid-contract management tool. Cattle and other forms of livestock can and should be the sustainable solution to managing CRP acreage.

USDA's voluntary conservation programs have been a great asset to cattle producers, and it is important that these programs are implemented in a practical, producer-friendly, and voluntary manner for years to come. Ranchers across the country maintain open spaces, healthy range lands, provide wildlife habitat, and we feed the world.

I appreciate the opportunity to visit with you today. Thank you for your time, and I would welcome any questions you have.

[The prepared statement of Mr. Wiese follows:]

PREPARED STATEMENT OF SHAYNE WIESE, MANAGER, OPERATIONS, WIESE & SONS: GOOD DOIN' BULLS; MEMBER, IOWA CATTLEMEN'S ASSOCIATION; MEMBER, NATIONAL CATTLEMEN'S BEEF ASSOCIATION, MANNING, IA

Good morning, [Chair] Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee. My name is Shayne Wiese, and I'm honored to join you today. I am the fifth generation of a cattle operation in west central Iowa that specializes in the production of high quality, productive Hereford bulls for commercial cow-calf producers. But beyond our production focus, our operation has a strong conservation history. Wiese & Sons are advocates for on-farm conservation and have utilized cover crops, CRP, water filtration buffers, and erosion reduction practices for decades. Wiese & Sons is a past winner of NCBA's Environmental Stewardship Award, which recognizes operations that go above and beyond to effectively manage not only their cattle, but their natural resources as well.

I am proud to represent the National Cattlemen's Beef Association and Iowa Cattlemen's Association today. The National Cattlemen's Beef Association is the nation's largest and oldest national trade association representing the U.S. beef cattle industry, with other 250,000 producers represented through both direct membership and 44 state affiliate associations. The Iowa Cattlemen's Association is an affiliate of NCBA, and represents nearly 8,000 producers and friends of the beef cattle industry through membership and its 97 county affiliate associations.

U.S. cattle producers own and manage considerably more land than any other segment of agriculture—or any other industry for that matter. Cattle producers graze

cattle on approximately 666.4 million acres across the United States—nearly $\frac{1}{3}$ of our nation's continental landmass. Additionally, acreage used to grow hay, feed grains, and food grains add millions more acres of land under cattlemen's stewardship and private ownership. Some of the biggest challenges and threats to our industry come from the loss or conversion of our natural resources. The livestock industry is threatened daily by urban encroachment, natural disasters, and government overreach that makes our stewardship harder—if not impossible. Since our livelihood is made on the land, through the utilization of our natural resources, being good stewards of the land not only makes good environmental sense; it is fundamental for our industry to remain strong. We strive to maximize the environmental, economic, and social sustainability of our operations, and it is through voluntary conservation programs that ranchers will continue to be a proud partner with the government to reach our environmental conservation goals.

Conservation programs are one of the most visible and consistently important portions of the farm bill for cattle producers across the country. Many cattle producers' only nexus to farm bill-related services occurs at their local NRCS or FSA office. Building and maintaining robust voluntary conservation resources must remain a top priority for USDA. The 2018 Farm Bill sent a strong signal to agricultural producers across the country that voluntary conservation is a top priority, we appreciate this Committee's commitment to continually improving these vital programs. Implementation of the 2018 Farm Bill created opportunities for cattle producers across the country, but also new challenges. I'm excited to discuss those opportunities and challenges with you today.

Cattle producers pride themselves on being good stewards of our country's natural resources. Cattle producers employ various conservation practices, many of which we put in place by utilizing NRCS programs, such as the Environmental Quality Incentives Program (or EQIP). EQIP is designed to assist producers in implementing conservation practices that will enhance the health of grazing lands, improving water quality, improving soil quality, and reducing soil erosion. One important feature of EQIP has been its focus on livestock operations, and we appreciated the 50 percent funding designation for livestock-related practices in the 2018 Farm Bill. Because crop production receives significant value from other working lands programs, like CSP, a livestock carve-out for EQIP funding ensures that resources are equitably distributed among producers. Federal funds spent on conservation are a good investment in our country's natural resources and the sustainability of agriculture and wildlife, and it is vital to ensure that livestock producers have access to these valuable resources for grazing and feeding management.

While the intent of EQIP is to make conservation funding and technical assistance accessible to all producers, barriers to entry often disincentivize producers from utilizing NRCS programs. Recently, I applied to receive EQIP cost-share funding for a water infrastructure project on my operation. After months of waiting with no approval, I finally gave up and completed the project without assistance from USDA. I see many other opportunities on our ranch to improve the land and environment with EQIP funding but simply do not have the confidence in the process to apply again. We could improve upon soil-health-building grazing practices, provide more erosion control, and promote cleaner water sources. I would rather budget responsibly and pay for it ourselves to help the ranch be environmentally progressive than wait for assistance and lose valuable time. I am not alone in this. Ranchers care about the environment and their livestock, and any improvement on the land is something we are unanimously proud of. By creating additional hurdles for producers that want to utilize these programs, the Committee and USDA limit access to these programs while simultaneously limiting the government's ability to record our environmental improvements. I urge the Committee to support initiatives in the farm bill that allow NRCS programs to support innovation and commonsense land management.

It is clear through my experience with NRCS and FSA that lack of funding for practice implementation is not an issue. Especially when it comes to EQIP, the 50 percent livestock carve-out is effective in ensuring that necessary monies are available. The most significant challenge for producers who want to take advantage of working lands programs is the inefficiency in technical assistance availability and funding distribution that allow us to accomplish a project. While this hurdle was acknowledged by Congress in the 2018 Farm Bill, few of the policies focused on increasing functionality.

Flexibility is key to ranchers' utilization of conservation programs. Ensuring that producers have the freedom to effectively manage their land goes beyond EQIP, stretching to other conservation programs like the Conservation Reserve Program (or CRP). CRP has the potential to provide significant environmental benefit, but currently fails to maximize its value. Changes made in the 2018 Farm Bill limit our

ability to effectively manage CRP acreage with grazing. Livestock graze mature, stagnate grasses and allow regrowth of green, carbon-capturing plants. Our ranch took some land out of CRP and transitioned it into our cattle rotational grazing system recently. We have seen improvements to all pastures due to more grazing options. We have successfully reduced the need for synthetic fertilizers near that land base and have seen less weed pressure with more green grass growth. If we allow more CRP grazing, we will promote more opportunity for beginning ranchers to graze animals responsibly and provide existing pastures more rest and recovery during drought years. This will be especially beneficial in areas where pasture is scarce and livestock production is rapidly dwindling like my home state of Iowa. Furthermore, mid-contract management within CRP includes carbon-emitting prescribed burns that are dangerous on drought years, spraying herbicides that terminate good and bad plant species, or tilling up the soil and reseeding which contradicts soil health improvements. Cattle and other forms of livestock can be the sustainable solution to managing CRP without the negative impact on the ecosystem while also helping ranchers economically.

Congress and the Administration have made clear their interest in building a climate-smart economy, including the integration of climate-smart practices into the agricultural industry. Grazing is a valuable tool in maximizing carbon sequestration but is not a tool that we are able to use on CRP acreage. This policy not only limits our ability to effectively manage our land but contradicts the Administration's climate-related priority. By allowing cattle to graze CRP acreage without a reduction in payment, we could greatly increase interest in CRP contracts, while simultaneously maximizing environmental value and economic benefit.

Voluntary conservation programs work because they are voluntary. Our operation has had success in using USDA conservation programs, but just because this system works for us does not mean it's right for everybody. Continuing to fund voluntary conservation programs, while keeping them voluntary, is critical to their continued success. A one-size fits all approach that accompanies top-down regulation does not work in the cattle industry. If these programs or practices were to become mandatory, the rules and regulations that farmers and ranchers would be subjected to would make it harder for them to utilize the unique conservation practices that help their individual operations thrive.

As policymakers consider the sustainability of the U.S. agricultural industry, environmental sustainability is only one leg of a three-legged stool. Cattle producers strive to balance environmental sustainability with economic viability and social consciousness—maintaining this balance is key to ensuring our long-term success. Economic prosperity, social awareness, and voluntary conservation go hand-in-hand and we are always looking for new, innovative conservation programs that will have tangible benefits for the environment and help to improve our ranching lands. USDA's voluntary conservation programs have been a great asset to cattle producers, and it is important that these programs are implemented in a practical, producer friendly, and voluntary manner for years to come to ensure that cattle producers will continue to have the ability to do what we do best—produce the world's safest, most nutritious, abundant, and affordable protein while operating in the most environmentally friendly way possible. Ranchers across the country maintain open spaces, healthy rangelands, provide wildlife habitat and feed the world. Together we can sustain our country's natural resources and economic prosperity, ensuring the viability of our way of life for future generations. I appreciate the opportunity to visit with you today. Thank you for your time, and I welcome any questions you have.

The CHAIR. Thank you very much for your testimony, Mr. Wiese.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members. You will be recognized for 5 minutes each in order to allow for us to get to as many questions as possible. Please keep your microphones muted until you are recognized in order to minimize background noise.

And I now begin by recognizing myself for 5 minutes. And I want to begin with you, Mr. Wiese. I appreciated your testimony very much. And one of the things in your written testimony and again in your spoken testimony, you talk about some of the hurdles that you and your family experienced on your ranch. Could you just give us a brief rundown of what are some of those hurdles and how they

preclude you from being able to use these programs in the ways that you would want to optimally?

Mr. WIESE. Of course, thank you. For us, when we are deciding how to manage our cattle, we got to think of three things, and one is the environment, our cattle, our business, and even, I guess, our social life, our family life. So, some of the hurdles with like EQIP and CRP is just flexibility and timeliness. The EQIP program I referenced in my testimony, we were in a drought and we needed water infrastructure. We have to water our cattle. And, our biggest dilemma with it was I applied and we waited and waited. And finally, we just had to bite the bullet and do it. I am one of the spoiled few in the cattle business that has a generational ranch that is set up with land, resources, and capital, so I can do that process of just buying that outright. Beginning ranchers and farmers don't have that in this current state of the business. So that was probably the main thing is just the timeliness of EQIP.

In terms of CRP, we are really, really big fans of it, but always having that worry of penalty if we do have to emergency graze or hay and our county isn't approved for that, that is a hit to the business. It is a cash-flow hit. So I think anything that provides flexibility for business, anything that allows better grazing management from a cattle perspective, that is a win-win for everybody. The environment benefits, the producer benefits, and we benefit because we don't have the stress of dealing with drought or running out of grass and having to feed really expensive hay.

The CHAIR. Yes. And you know you have the benefit of the re-growth of that grass as you graze on other fields.

You also talked about just the overall benefits and how you view the program and the environmental, economic, and social sustainability of your operations. And I appreciated that commentary because so much of what it is that we are focused on with the Conservation Title, these voluntary programs, they are meant to do just that. They are meant to create opportunities for producers to be able to invest in their land, get support in kind of taking on new projects and programs that they might otherwise not be able to pursue that can have all of these significant benefits.

I hear you on just the timeliness of a response because you make an excellent point. If someone doesn't have the capital at the ready and you are constantly questioning how much and when do we just sort of pull the plug on the application and move forward doing what needs to be done?

One of the consistent concerns that we heard from all of the witnesses related to technical assistance and the CSP program, so I was wondering, Mr. Crowder, perhaps because you were the first to bring it up probably because you were the first to speak, could you speak to that a little bit? Notably, the Ranking Member also mentioned the shortcomings that we see in that program. What are some of the suggestions that you would bring to the Committee in terms of—is it an issue of resources? Is it an issue of training? Is it an issue of prioritizing the workforce? What are some of the things you would want us to know? Sorry, I think you need to turn your microphone on.

Mr. CROWDER. I am sorry.

The CHAIR. Thank you.

Mr. CROWDER. In May we had a conservation careers—

The CHAIR. Yes, thank you for being here for that then.

Mr. CROWDER. Yes. And we talked about the importance of the workforce. And during the hearing, the Committee recognized that in order to address our current and future conservation needs, we have to bring new generations forward. And at this point, I would like to plug that we have 13 members of our next-generation leadership institute right next door, so we are doing our part. But we have to bring those new folks forward to the workforce. We have worked with Chief Cosby and others at the NRCS on conservation technical assistance grants to make sure we put boots on the ground. And we are doing a lot of work in the field to make sure that we have people in line to fill those positions at districts and at the NRCS.

The CHAIR. Thank you very much. And as my time comes to a close, I just want to thank Ms. Berg for bringing the numbers to the table in terms of the 7,500 contracts that have been given but the 5,000 unfunded for wheat growers across the country who have applied for programs. I think for all of us looking at what is the demand on the ground, we frequently say they are oversubscribed and under-funded but noting that a significant number of growers across the country want to participate and want to benefit from these programs and simply can't I think is a good call to action for us into the future.

Thank you. My time has expired. And I now recognize Ranking Member LaMalfa for 5 minutes.

Mr. LAMALFA. Thank you again, Madam Chair.

Mr. Crowder, you mentioned in your testimony the importance of forest management on Federal, state, and private land. Please elaborate on how the farm bill programs can help support forest health. I find it interesting as I came into the building, somebody was having a seminar down the hall about wildfire. And this points out in this brochure, which covers a broad area even around the world, but the highlight at the top is the 1 million acre Dixie Fire, which occurred in my district last year, 1 million acres, 1 with six 0's behind it. I mean, that is many, many square miles of land. So can you please speak to us how the conservation programs that are in the farm bill or that could be improved in the next farm bill would be helpful on what indeed are catastrophes like this?

Mr. CROWDER. I would mention that Nicole and I live in Washington State, so we share your fear of wildfires at all times. Matter of fact, we have the smoke from California, Oregon, Washington. So we understand the fear of living that, and I have had the fire bombers come right over my house. So I understand.

Mr. LAMALFA. Ironically, that same smoke plume was making it all the way back here. You can see in New York, and they were talking about, don't go outside these days for health purposes for people who normally do exercise.

Mr. CROWDER. Absolutely, sir. But as far as—NACD supports our forest health completely. We have a Forestry Resource Policy Group that we work with the Forest Service and the NRCS. And we have a lot of work going on with good neighbor authority, good forest health practices. The Inflation Reduction Act had approximately \$5 billion for forestry work.

And as we go forward with the 2023 Farm Bill, we want to help in every way possible to make sure that forest health becomes the forefront. We cannot have the fires that we have had. I have lived in Washington State for 20 years. The first 10 years we had very few fires. In the last few years, they are bigger, earlier. It is terrifying. So anything that we can do to help with forest management practices, help with at the local district level, we have programs like Firewise that we used on my ranch where you come and evaluate and make sure that you get dead timber away from any combustibles, away from the house.

So there is a lot of work that is currently being done, but so much more that we can do to make sure that these giant fires are more controllable in the future. And if climate change or then more heat and dryness that we are seeing over the years continues, we are going to be fighting this for years to come.

Mr. LAMALFA. Indeed, no matter what weather terminology you want to attribute it to, if we are going through a heat cycle, then we need to be doing more on forest management with the right amount of trees per acre that it can sustain with the available water underground, as well as snowfall and such.

Mr. CROWDER. Yes, sir.

Mr. LAMALFA. So let me shift to Mr. Wiese, correct? In speaking to this topic here, I think I sense some frustration with the limitation of the livestock producers' ability to manage grazing on their acreage or even coming back to the forestry side of it and other Federal lands, getting the permits, I don't know how much that affects you in Iowa. But Federal land permits for grazing have really, really tightened up and we have seen this happen at the same time as fire. Fire acres have increased. Mr. Crowder has kind of mentioned that, too, is that we are seeing the number, a big fire used to be four digits or even five digits. Now, six digits is becoming routine. Touch on the grazing frustrations you might acknowledge for us on getting those grazing lands.

Mr. WIESE. Thank you.

As he was speaking of managing timber and things along those lines, I immediately went to cows. We can use cattle and livestock as tools. It is an awesome sight to see when cattle take brown, stagnant, mature grass, timber, whatever it is, they eat it, they clear it out, and the green regrowth that appears from that is beautiful. And I think on a forestry side of things, cattle and livestock are a great solution. And it doesn't have to be a long graze that can inhibit the grassland. It just needs to be a short, intensive rotation that can clear that out and everybody wins in that solution, the environment, the cattle, the business. Livestock are an incredible tool that we can use to help combat wildfire, promote photosynthesis to improve carbon sequestration. The cattle can be a tool, they aren't a hindrance, and I want to drive that fact.

Mr. LAMALFA. Indeed, I have seen ideas of having a pilot program where we will do some grazing on some land and see what the fire suppression effects of that are. Like I don't know, we need to be doing a pilot program where we can actually tell, you can see any place where a fire occurs or there is grazing right up to the fence, the fire stops where there was no grazing, big time. So thank you for that.

And I will yield back, Madam Chair.

The CHAIR. Thank you very much. Those questions were very interesting, as were the answers.

The Chair now recognizes Ms. Pingree for 5 minutes.

Ms. PINGREE. Thank you, Madam Chair. Thank you for having this hearing. It is such an important time to be discussing these programs as we look into the farm bill. And thank you to all the people testifying today, I really appreciate all of your thoughts. I am going to start with Ms. Faeth from the Land Trust Alliance. First, I just want to thank you generally for Land Trust Alliance. I come from the State of Maine, and they have played such an important role in all sizes of communities to preserve land that is important to those communities. And I just so much appreciate that you are there.

But I do want to specifically talk about the farmland, and you talked about losing farmland. This was part of your focus. And I did see a report from American Farmland Trust that showed from 2001 to 2016 our nation lost or compromised 2,000 acres of farmland, ranchland every day. So that is just a staggering number, and we know it is getting worse, not better.

So you talked a little bit about some of the conservation programs and the speed. What else can you say that you haven't already done that we could be doing in the farm bill to improve this? I know that funding is key, so feel free to mention that again, but any other things you want to talk about?

Ms. FAETH. Thank you. Yes, the conservation easement programs are really critical. And that is, as I mentioned, the one tool that will allow willing landowners as landowners who want to ensure that their working farm or forested lands remained in working lands in perpetuity. They are the key to food security in our country, and to conserving farms and ranches and slowing down that pace of conversion, so increased funding is something obviously that we are advocating for.

Other things would be simplifying and streamlining the certified entity application enrollment process. There are two changes that Congress could do as part of the 2023 Farm Bill, by clarifying the process to become a certified entity in statute, and recognizing certified entities across all easement programs. And we are talking with the agency about some administrative changes as well, so, you know making those programs work more effectively will require both statutory and administrative changes.

The staffing issue, the capacity issue at NRCS and across the Federal Government is part of the problem for getting these dollars out on the ground to conserving farms, ranches, and so, we encourage you to be thoughtful about that as you go forward.

And then clarification in the 2023 Farm Bill about some of the things that were achieved in the 2018 Farm Bill either in statute or report language, like around things like the ALE Plan, removing that onerous provision in the 2018 Farm Bill and the way matching funds are handled will help streamline the programs as well. Thank you.

Ms. PINGREE. Sure. Those are really, really helpful, and it would be great if you do follow up with more details to all of us. I think we are all interested in this.

I also was interested, you mentioned something about including forestry, a forest health set-aside. Do you want to talk a little bit about that, too? I thought that was an important idea. And so many of us have forest lands in our district. Maine is the most forested state in the nation with a lot of private forest land, so that is a big interest to us.

Ms. FAETH. Sure, thank you. In the 2018 Farm Bill, one of the things that wasn't addressed is the gap to provide an easement opportunity for working forested lands, so we are proposing enhancing the existing Healthy Forests Reserve Program to establish a new program called the Forest Conservation Easement Program. It would be a sister program to ACEP where there would be forestland easements, those would be entity-held easements, and then forest reserve easements focused on endangered species and restoration of those lands. And those would be U.S.-held easements. We think this is a much-needed and important complement to the farm bill conservation programs. We would like to see mandatory funding.

We want to be really, really clear that in making sure that there is a working program for working forested lands that we are not attempting to limit or reduce dollars for conservation on our farms and ranches. So we believe that any funding for a Forest Conservation Easement Program must be in addition to the funding for ACEP, and I would be happy to provide more information.

[The information referred to is located on p. 1583.]

Ms. PINGREE. Great. And thank you for that. I absolutely agree with you. We can't take money away from the farmland preservation.

Mr. Crowder, you already covered this quite a bit, but I know it keeps coming up about the staffing issues. And I am glad to hear you are mentioning young recruits. I don't have a lot of time, but anything else we need to do to support NRCS and having the capacity that it needs?

Mr. CROWDER. One of the big things is the direct hire authority for NRCS. That is critical that we get boots on the ground, and that always comes back to conservation technical assistance so we can do partnership work with districts and other organizations that can be those boots on the ground besides the NRCS folks.

Ms. PINGREE. Great. Well, I am very supportive of both of those things. So I will yield back. Thank you very much, Madam Chair.

The CHAIR. Thank you so much.

The Chair now recognizes Mr. Allen for 5 minutes.

Mr. ALLEN. Good. Chair Spanberger and Ranking Member LaMalfa, thank you for holding this hearing today. And to our witnesses, thank you for being here and sharing with us as well.

I would like to begin my remarks by recognizing our American farmers. They are the greatest conservationists in the world, and it is only with their lead that we can continue to protect our natural resources and habitats while also continuing to feed the world.

Mr. Wiese, I know a little bit about what you are dealing with. My dad managed the Georgia Hereford Farm right outside of Augusta, Georgia, when he returned from World War II. I was born and raised on that farm, and in fact I have a picture of my dad standing with their champion bull in the sales barn. And at that

time that bull was purchased, I believe, by a big farm in the Midwest. Any chance that you all bought a bull in 1949 outside of Augusta, Georgia?

The CHAIR. I recommend the witness just say yes.

Mr. WIESE. I would love to find that answer for you.

Mr. ALLEN. Yes. I want to know the answer.

Mr. WIESE. [inaudible].

Mr. ALLEN. Yes, and I have never could—I can't remember what my dad said that thing sold for, but it was a champion bull. But, I also understand what you are going through today. I mean, we have the White House combined with my colleagues, who are a real threat to the family farm today. And in the name of this climate god or this new world religion, while it is very clear in the first chapter of the scriptures that we know who is actually in charge of the climate, and of course, we know the planet is warming, but nobody can tell me what we are doing and how we are putting our economy and our farms at risk trying to bring that temperature down and how much they can bring it down, but that is another subject.

But you mentioned the CRP program and the flexibility. I have had the same problem. Is it Mr. Crowder? I have heard frequent complaints from my timber farmers that the CRP is too inflexible. And if landowners were provided the option to substitute land that is already under CRP contract with the same acreage of similarly environmental sensitive land, would there be cause for concern?

Mr. CROWDER. Mr. Allen, NACD supports CRP immensely. But I would say that we support that the most environmentally sensitive ground is prioritized. So prime farm ground would be of less priority in CRP. In Washington, we have some issues where CRP is oversubscribed in some counties due to sage grouse initiatives, and that is one thing that it is more of a localized issue. But CRP is a great tool for farmers.

Mr. ALLEN. It is, but we have to make it more flexible for them because things change.

Mr. CROWDER. I agree.

Mr. ALLEN. You put these things in a program for a long-term, but I have had problem after problem, people wanting to, for example, use the pine straw, people wanting to do other things. Like they have property that they need to flip and they were willing in this case to even give more property to CRP, but the government turned them down. And so we have to figure out in this next farm bill how to make that more flexible.

Ms. Berg, if EQIP funds were allowed to be used to help pay for precision ag technology, would this help farmers address natural resource concerns and deliver environmental benefits according to the purpose of the program?

Ms. BERG. Absolutely. EQIP is definitely a tool that farmers need out there to help integrate precision agriculture and technology to help manage the natural resources and promote soil health in our farming practices.

Mr. ALLEN. All right. And, of course, I want to talk about the feral hog problem, but, first, Mr. Wiese, I got to ask you, I mean, what kept you from being able to get the water from the ground or wherever to water your cattle? And I don't know, are you all irri-

gated out there or—so you are dryland? Okay. Well, in Georgia we have to irrigate. But anyway, what was the holdup? I mean, was it the Federal Government?

Mr. WIESE. Well, we water on a lot of ponds.

Mr. ALLEN. Yes.

Mr. WIESE. And ponds were running dry.

Mr. ALLEN. Yes.

Mr. WIESE. So we were looking to run a water line to make an extra tank into that particular pasture, and the holdup was just the process. We applied, did all the paperwork.

Mr. ALLEN. Who did you apply to, the state or—

Mr. WIESE. The state.

Mr. ALLEN. Okay.

Mr. WIESE. We waited and we waited and nothing ever came about of it. And we have to water livestock, so we just went ahead and bit the bullet and did it.

Mr. ALLEN. Yes.

Mr. WIESE. And, again, it wasn't ideal, but it is what we had to do.

Mr. ALLEN. All right. It sounds like you need some leadership in the State of Iowa. All right. Well, I yield back, Madam Chair.

The CHAIR. The chair now recognizes Mr. Panetta for 5 minutes.

Mr. PANETTA. Thank you, Madam Chair, Ranking Member, I appreciate this opportunity to have this type of discussion with these experts to talk about many of our Federal conservation programs, especially when it comes to protecting our farmlands and developing effective conservation practices.

I hail from the Central Coast of California, the area that I represent. And obviously, we have plenty of not just agriculture but specialty crops, including 50 percent organic crops within that. Obviously, with the unique makeup of our agricultural landscape comes unique conservation challenges, especially when it comes to access to technical information and the up-front cost. Yet, there is still plenty, plenty of work to do as we approach next year's farm bill to ensure that all growers, especially those left out of the *status quo* like my specialty crop producers, that they are included in these types of very, very important conversations.

Now, as we look to better protect our environment, of course, I firmly believe and I think most people around this dais firmly believe that farmers have a huge role to play, as well as our government, so that we can provide the resources, the knowledge, the intellect that is critical in regards to the support that is necessary for our farmers and ranchers, especially those that are most impacted by the threats of climate change and environmental degradation.

Now, I would also like to obviously highlight the fact that the IRA, the Inflation Reduction Act, provided close to \$20 billion in direct support for the USDA's conservation programs within NRCS, a long overdue investment that will hopefully help our producers. And I look forward to continuing to work with this Committee, with the Department of Agriculture so that we can make sure that all farmers are able to benefit from these types of solutions.

Mr. Crowder, obviously, you talk about certain programs, and you focus on obviously conservation, technical assistance, and you

hit on EQIP quite a bit in that. Obviously, I hear often with my specialty crop producers, one size does not fit all. And I think we understand that, and we believe that. Can you explain why programs should remain voluntary so that it is important and how it contributes to the success of the NRCS conservation programs?

Mr. CROWDER. Well, in our opinion, the voluntary aspect is the key. The government is not coming in telling any farmer what they need to do. The impacts that you get for these farmers to do water quality work, quantity work, benefits not only those farmers but the neighbors, the community, and the millions of acres that have gone on. It creates an environment that is good for the United States.

So one thing that comes to mind for your area and others is the access to the historically underserved. And one thing that I have been working on and talk to Chief Cosby and others is the signatory authority for conservation programs. And historically, you have Black farmers in the Southeast, you have Tribal members, Pacific Islanders and others, Latinos that can't sign the conservation programs because they don't have access to clear title to their farm. So that is one aspect that we are working on. But EQIP and other conservation programs are just key to making sure that producers have the access to the programs that they need to be successful.

Mr. PANETTA. Okay. Mr. Wiese, directing my questions towards you, obviously, the 2018 Farm Bill I would say empowered livestock producers to be better stewards of our natural resources. If given the chance, what would you want to see in the 2023 Farm Bill that would help us build on this work?

Mr. WIESE. Thank you. I think, in reference to the 2018 Farm Bill, there was a lot of good, but there were a couple of hurdles. For example, in terms of emergency haying and grazing CRP ground, if we hit a D3 drought, the ability to emergency graze and hay became more limited due to making sure there was proper amount of residual grass. So they swapped it over to payment per head. And by doing that, it almost formed inflation within the cattle business and just drove up the price of hay. So, we think we need to take a flexible approach where we have more options to graze, maybe reduce the penalty for grazing because that promotes better mid-contract management instead of taking a tractor and spraying chemical or promoting burning of CRP ground, we can use cattle to do that for us. I think we just need to take a holistic approach where again, the business, the cattle business, the conservation is there, the social aspects, the thing is there where all of it works together, so very subtle things. And obviously, I am not familiar with specifications, due to my occupation, but I think anything that helps promote young cattlemen and cattlemen and farmers and ranchers in general to have a business improvement and still make conservation a priority would be a win for everybody.

Mr. PANETTA. Fair enough, thank you. Thanks to all the witnesses. Madam Chair, I yield back.

The CHAIR. Not seeing a Minority Member on, we are going to go to Ms. Schrier next for 5 minutes.

Ms. SCHRIER. Thank you, Madam Chair, and welcome to all of our witnesses. I am particularly delighted to have two witnesses, Ms. Berg and Mr. Crowder, from my home State of Washington. It is wonderful to see you today. And you have both been excellent consultants and advisors for me and my staff.

I am excited to talk about these programs, which are so popular in my district because of their flexible, local-first approach, which really serves the diversity of Washington agriculture well.

Look, I don't think we need to reinvent the wheel here. What we need are commonsense adjustments to ensure that these programs are serving our producers and their land well. And as funding for these programs increases, I think we need to find ways to decrease the burden on our farmers and growers and also on conservation districts. I have heard from producers that the application process for these programs is complicated, and applying can feel like a full-time job in itself. And this is particularly frustrating given the low success rates of these applications. In fact, in 2020, only 30 percent of EQIP and 32 percent of CSP applications were accepted in Washington State.

So for farmers who are already busy, applying to a complicated oversubscribed program is just not the best use or an appropriate use of their limited time. So that is why many farmers depend on their local conservation districts for assistance, which puts pressure on them. They partner with NRCS and serve as the boots on the ground to make these programs work.

Mr. Crowder, I have a couple questions for you, and then I would like to pivot to Ms. Berg. First, what can Congress do to support conservation districts who are not only implementing projects but also assisting farmers with applications and doing outreach to their communities about what services they provide?

Mr. CROWDER. Good to see you again, Congresswoman Schrier. NACD has a fantastic working relationship with USDA NRCS, but one thing I have talked about already but I can't talk about enough is the conservation technical assistance and the conservation technical assistance grants that we implement through the NRCS funding throughout districts. And that has gone to 50 states and three U.S. Territories. And in the last 4 years, we have distributed about \$50 million to districts directly towards staffing to help NRCS put boots on the ground to make sure those conservation plans are written for those conservation programs. So that is one thing that I would say that we do a very good job of working with NRCS on.

Ms. SCHRIER. Thank you, and thank you for pointing out the need for staffing. Now, specifically with the application process, is there anything that we can do as we head toward the next year's farm bill for USDA and Congress to do to just simplify the application process to make it easier on farmers?

Mr. CROWDER. As far as NACD's farm bill principles, one of our principles is clarifying and simplifying the application process. So we are happy to work with this Committee, the full Agriculture Committee, and NRCS to make sure the applications for those programs are streamlined. You have so much money that is coming forward through farm bill, IRA, and infrastructure that it just simply has to be an easier process for farmers to make sure that their

applications are processed, going forward. And we are happy to work with this Committee and others to do that at NACD.

Ms. SCHRIER. Thank you. Last, I just want to highlight some challenges experienced by those using the CRP, which enrolls over 1.4 million acres in Washington State, which supports wildlife—you talked about the sage grouse—and reduces soil erosion.

Ms. BERG, you mentioned in your testimony that recent changes to the program like reducing cost-sharing and how rental rates are calculated, compounded by staffing shortages, made the most recent signup period even more complicated than normal. You also mentioned the need for additional training. What else can be done? How would you do this kind of training? What can we do in Congress to change these programs and make them better?

Ms. BERG. Thank you for the question, Congresswoman. And I do think that there can be some changes set forth in the CRP program. One thing happened a couple years ago. There was over 200 different changes to the program, and ever since then, we have had a problem in our state like interpreting the rules of the program, what are your expectations, laying out the expectations. And then also, I talked about staffing and trying to get the staff out to the farms or onto the CRP land and help us understand certified stands, how can we make the CRP a well-rounded part of our business plan? I don't have much time, so I will make it short.

Ms. SCHRIER. Thank you. I yield back.

The CHAIR. The chair now recognizes Mr. Johnson for 5 minutes.

Mr. JOHNSON. Thank you, Madam Chair. I will start with Mr. Crowder. And I think we have seen just incredible improvements, cover crop usage by American producers up 50 percent in recent decades. We have seen conservation tillage up 30 percent in recent decades. I certainly have seen a number of those evolutions on the ground in South Dakota.

So, Mr. Crowder, to what extent do we feel like it has been farm bill programs, conservation programs that have really driven that adaptation? Or are there other factors primarily to credit for that?

Mr. CROWDER. Well, I would say the farm bill programs are certainly the driving force for that. There are billions of dollars and millions of landowners that participate in that. A caveat is only 30 percent of the applications are funded, so there has to be a better avenue to fund those applications. We have to simplify the applications and make sure more of them are funded. Now, we have a lot of money coming from Inflation Reduction Act that will address that, and we will see, going forward, with the 2023 Farm Bill how that is incorporated or if it is incorporated and see how that money affects the conservation that goes on to the ground.

Mr. JOHNSON. So outside of the fact that only 30 percent are getting selected, what is the next largest barrier to further adoption of these conservation practices?

Mr. CROWDER. Boots on the ground. We need more NRCS folks and more district folks and more people that helped write conservation plans and process those applications. If your 70 percent are not getting funded, not getting done, we have to make sure those conservation plans are ready on these fields, and districts stand ready to help with that. There will be a lot of money coming forward here in the next 4 years for that, so if those conservation

plans are ready, you can use those parallel tracks of Inflation Reduction Act money and farm bill money to put that conservation on the ground.

Mr. JOHNSON. So I recently had a farm bill conservation roundtable in South Dakota, and I was surprised at the number of producers who told me at that round table that they felt like there had been so much turnover at NRCS and that so many of the new hires didn't really understand the conservation practices. They weren't really able to provide the level of technical assistance and advice that these producers were seeking. Mr. Crowder, do we hear that elsewhere or was that more of a localized problem?

Mr. CROWDER. No, sir, you will see that everywhere. And the Great Recession through COVID is real, and it is not just NRCS, it is McDonald's. Every business you deal with, you will see that. But I know Chief Cosby and NRCS are working very hard to bring in a direct hire authority. It would certainly help that. We need to help NRCS get those folks on the field. They need to go to my farm and Nicole's farm and Mr. Wiese's farm and make sure they understand the processes that it takes, what the farmer needs. So they need to understand how to write those programs, but also why us farmers, why us ranchers, why we need that.

So yes, I agree with you, there are challenges at the local field office, but we know that and we are working on that. And I know the NRCS is working on that very hard to make sure that we address the needs of farmers and ranchers and producers.

Mr. JOHNSON. Ms. Berg, with the minute I have left, any reactions to any of my questions or Mr. Crowder's statements?

Ms. BERG. Just my reaction, you asked the question, are we seeing the technical assistance challenges across the countryside in the wheat industry? Absolutely. That is one of the biggest complaints we hear through our association is the lack of technical assistance, boots on the ground. And then when they do get boots on the ground, we have actually tried to approach them and say, "Hey, let's do some mentoring, get some of these new staff members out to the farm. Let's go kick some dirt. Let's get them to understand the new technologies and the up-and-coming technologies that we would like to implement on our land." And some of these folks just need some training and need some help with some training.

Mr. JOHNSON. Very good. Mr. Wiese, anything you want to add?

Mr. WIESE. Thank you. Quickly, I think one thing we need to also consider is trying to avoid multi-county conservation offices. I know in Iowa there are a couple of counties that have to double dip or offices that have to double dip via counties, and I can only imagine in larger states like New Mexico or South Dakota where they have to travel very far to get to their NRCS office, that is a hindrance in terms of knowledge, too. Funding, I agree with everything we have stated. We have to get boots on the ground, inform everybody, and have less variability amongst offices.

Mr. JOHNSON. Thank you very much. Madam Chair, I yield back.

The CHAIR. The chair now recognizes Mr. O'Halleran for 5 minutes.

Mr. O'HALLERAN. Thank you, Madam Chair, Ranking Member, for holding this hearing today. I appreciate the opportunity to hear

more from our stakeholders and their experience with Title II conservation programs.

Conservation of our nation's natural resources continues to be a top priority of mine in the upcoming farm bill. And it should be no surprise to anybody that we are having a problem with getting personnel out in the field. We have gone through cuts after cuts after cuts over multiple years, and seeing that number decrease at the expense of conservation, of the rancher, the farmer, and others who need these programs with enough personnel to make them effective.

With the current conditions in the Colorado River Basin, Arizona continues to experience the worst drought in the past 1,200 years, very detrimental to our agriculture industry. And I fully expect the conditions may worsen considerably before they get better, which is why these conservation programs are even more important to farmers and ranchers in my district. We must provide farmers and ranchers the tools they need to continue to do good work and be good stewards of the land.

Mr. Crowder, farmers in my district tell me that they are making big changes to farms that increase resilience to extreme weather like drought takes a lot of time, often multiple seasons. What do you see as the best tools in the toolbox of the NRCS programs for addressing the length of time it takes to implement these changes?

Mr. CROWDER. Well, if I understand your question correctly, is—so can I have you clarify your question as far as the length of time? Is that how long it takes to get from application to on-the-ground conservation work?

Mr. O'HALLERAN. Exactly. Thank you.

Mr. CROWDER. Yes. Simply, that is more people on the ground. That is more people writing applications. And I don't want to sound like a broken record today, but direct hire authority for more employees at the NRCS and conservation technical assistance dollars NACD and other applicants. It is a process, and the government has an oversight to make sure that those funds are approved appropriately and that they are put on the ground appropriately, but we have been doing this a long time. NRCS has been doing this a long time. They they know what needs to be done as far as the practices on the ground. There are 167 practices, and we have priorities on that. And local working groups are great about prioritizing the highest needs in each area. So simply more people will help get conservation on the ground quicker.

Mr. O'HALLERAN. Thank you. And a follow-up, Mr. Crowder, from your experience, what program would you say is best positioned to help farmers in regions experiencing drought? And are there any adjustments that we could include in the next farm bill to improve upon this program and any other programs do you see need vast improvement?

Mr. CROWDER. Yes, sir. NACD, we support all of the conservation programs, but EQIP is the workhorse of the traditional conservation programs. CSP rewards early adopters, and you can take it to the next level. But EQIP is a program that can help with irrigation efficiencies and on and on, so that would be the workhorse of the conservation programs.

Mr. O'HALLERAN. Thank you very much. And I am going to end my remarks by just saying that I don't think any of us on this Committee are surprised by the fact that we need more personnel in the field, more people working faster to be able to get to the point where we are able to address the large amount of need out there on our farms and ranches across our country and conservation across our country.

And with that, Madam Chair, I yield.

The CHAIR. Thank you very much. In coordination with the Ranking Member, we are going to do a second round of questions. As of right now, it is the Ranking Member and I who are interested in another round. If any other Members want to express interest, please do let us know. But we are going to begin with Ranking Member LaMalfa. I recognize you for 5 minutes.

Mr. LAMALFA. Thank you again.

Ms. Berg, good to catch up with you here on the Committee. We obviously see the water issue in the West is very acute. And so we have had water conservation titles in the past in the farm bill. What do you see that we need to improve upon in 2023 to make—we need to talk about water infrastructure, certainly, but when we are talking on the conservation side, what can we do to make our water go farther so agriculture can continue to thrive and be at the table to receive more water?

Ms. BERG. Thank you for that question. I do have an irrigated farm and do have concerns about water and water levels. One of the things that I think that we could do through these Title II conservation programs through NRCS is do a better job of how do we document water savings. So if we did an irrigation conversion from like real flood irrigation to like a drip irrigation, there is water savings. So how can we move forward and have more of an inventory control through NRCS on how are we saving, what are we saving, and not just necessarily acres treated. And so I think that that could help us have a better picture of where are we saving water, how do these conservation programs—

Mr. LAMALFA. Are you diplomatically saying that farmers don't get a lot of credit for when they do something better like saving water or have more conservation practices that maybe produce less smoke when burning off stubble and things like that? Or do you think we need a little more credit for that? Is that kind of what you are saying?

Ms. BERG. I absolutely think we need more credit for that.

Mr. LAMALFA. Yes. Yes. I have noticed that myself in farming. Let's talk a little bit about the, I think it alluded to by Mr. Allen earlier, too, that we are having some problems with not enough of the—well, some of the staff that that deals directly with these programs understanding the system of farming and whether it is rotational practices, maybe not standard practices as they see it. What do you think we need to improve through the NRCS and others to help them have the flexibility installing the practices on their land that are actually tailored to what they need instead of maybe what the book says?

Ms. BERG. And that is a great question because farming, as you know, each year is different. Each season is different. And it is not in a book somewhere. And so I think through training and some

mentoring programs and whether it is through an association like ours that can filter down to other state associations and try to get some training and get those staff people out to the farms. I mean, I have always told anybody, if you want to come out to the farm and drive the tractor or combine, I will let you do it for free. And so get them out there and have them understand the practices and the technologies and where we want to go in technology because—

Mr. LAMALFA. Internships on the farm maybe? Is that what you are saying?

Ms. BERG. Yes, that is right.

Mr. LAMALFA. Yes. Okay. So I guess what we are really looking at is that sometimes you are running into inflexibility or lack of knowledge and so you got a hard-and-fast rule that doesn't allow the type of things that would be actually beneficial and towards the goals of the conservation but also help the farmers thrive, and you are finding that you are running into a wall sometimes?

Ms. BERG. Yes, like a good example would be the CRP program. And so you have a 10 year contract for CRP, you planted your CRP, you got it up, and then let's say you get into a drought situation. And so you are in this drought, your CRP is dying, and you don't really have much, whether it is technical assistance, financial assistance to help reestablish those plants that you planted, so then the farmers are led—now what? Now I am in trouble. I have no flexibility in the program, and I need to make sure that I either get it established or I have to pay it back. And so that becomes very difficult for farmers. And so there needs to be ways, especially when you have natural disasters, whether it is fire, wind, however you want to like categorize it. And so there definitely needs to be more flexibility in the programs and a little bit more assurances through quality assurances across state lines on how can we make these and how is it not one size fits all?

Mr. LAMALFA. Interesting, yes, because it is through no fault of their own but the conditions, maybe it is drought, maybe some other natural disaster, hurricane or whatever, tornado, earthquake where I am from, that could change their ability to fulfill as they would have desired to deal with, and all of a sudden they are in trouble. Well, I appreciate that. That gives us something to go with here. So please, anybody on the panel that was—you are nodding your head, too—send your thoughts along as I have run myself out of time here. But as we formulate the next farm bill and these conservation programs, help us to build in the flexibility and adaptability.* Nobody is trying to work around the program or take advantage of it in a malicious way. It is just things do happen. So thank you. I yield back.

The CHAIR. Thank you, I now recognize myself for an additional 5 minutes. And I just want to do some follow-up with some straightforward questions that I am asking more for the record than for anything else as we move into the future. Mr. Crowder, you have talked a lot about direct hire authority. Can you just give

* **Editor's note:** the responses to the information referred to are located: for Mr. Crowder, p. 1583; Ms. Faeth, p. 1584; and Mr. Wiese, p. 1585.

us a brief rundown of what that would mean and why that matters?

Mr. CROWDER. Madam Chair, I don't have the numbers in front of me but it is 700 to 1,000 NRCS employees that they are down. They have filled 500 or 600 a year, but the attrition rate—they are not gaining on attrition rate. So we have to have that authority through the NRCS to make sure that they can very quickly fill positions throughout the United States to make sure that those field offices are full.

And the other issue is not just direct hire authority but the amount that they are paying the folks in Washington State, a new employee would make \$24,000 more if they worked for the State of Washington than the NRCS. So they are losing engineers and other specific employees because there is not enough funds there to compete with the private or other Federal agencies.

The CHAIR. So it sounds like that needs to be a continued conversation about pay structure, pay bands, as well.

And now, Mr. Wiese, I am going to go to you with a bit of a follow-up. You said something in an answer I think it was to Mr. Allen's question where you were talking about the short intense graze and like what you have seen in terms of dead grass, worrisome terrain just getting eaten up and then new growth come in. Could you just speak to that a little bit? For those who maybe don't spend time either working the land with cattle or their crops in their district are not necessarily livestock and they don't spend a lot of time on ranches, could you just sort of walk through how some of these programs in the day-to-day function, and I am talking really like 101 discussion, again, for the record, how they facilitate what it is that you do with the added benefit of carbon sequestration and support to soil and also allow you to keep the waterways clear.

Mr. WIESE. Thank you. I think cattle are underappreciated for their value to upcycle nutrients. They are taking fiber, cellulose in the plants and digesting it, which we cannot do, and they are turning it into a nutritious protein source for us. And while they do that, they are providing nutrients back into the soil to promote organic matter and prosperity.

So, for us in terms of rotating cattle, there is a lot of benefit in terms of what they call take half, leave half in terms of plants. So how our cattle ranch operates is we turn cattle in to a pasture. It is a lot of visual appraisal and making sure that we don't graze it down to the dirt. And after about anywhere from 5 to 10 days, we move them to a different pasture. And it is a constant cycle depending on the growing season. If you have cool season grasses *versus* warm season grasses, you have to adjust that all year long. And we truly are promoting that the root systems to go deeper. We are promoting green leaf blades to emerge to capture sunlight. That is key in carbon sequestration. And it is really not that complicated if you look at it just from a cattleman's perspective. It doesn't have to be this real scientific process.

So I would invite anybody if they would love to come witness this at our cattle operation, we intensively graze as long as we can fall, spring, summer grazing, and it is something I think a lot of young cattlemen and -women can integrate into their business to become more profitable.

The CHAIR. It is quite a sight to really spend time on a cattle operation and to see exactly what you are talking about, and even going back to your opening comments in terms of the balance of environmental benefits and benefits to the operation, social benefits, all the rest, even just the ability to know where your cattle are at any given time and be able to rotate them through smaller pastures. The folks on the ground have been just so vital. And I thank all of the cattlemen across Virginia who have spent a lot of time educating me on the benefits that their work has to the local economy, culture, society, and ultimately to our food sources.

The Ranking Member has a dueling hearing, has excused himself, so I am going to continue forward towards adjournment. And he is foregoing a closing statement but again conveys his appreciation, as do I. Thank you. To follow up on what Ranking Member LaMalfa was saying, I do want to thank all of our farmers. I think that farmers do need a lot more credit, as do foresters, for the work that they do to protect our natural resources, the work that they do looking after the land and frankly, the work that they do to feed our fellow Americans.

I want to thank all of you for being here today. You have provided really thoughtful insights regarding the USDA's conservation programs. And certainly, as we look ahead to the 2023 Farm Bill, we want to make sure that we are informing any changes, adjustments, modifications to these programs based on what is working, what is not working. And I think that we have all heard very loud and clear timelines, responsiveness, flexibility, hiring flexibility, recognition that different areas, regions, and in fact, types of crops produced really might dictate the needs for flexibility so that producers on the ground can make the most of these programs.

Your thoughts on what is working and is not working is so helpful to us as we try to make these policies stronger, as we work to ensure that they do work for producers, and as we are looking to find on-farm efficiencies, boost the bottom line for producers, and make sure that we have an eye on combating the climate crisis with nature's—well, the first conservationists, who, of course, are our nation's farmers and producers.

So with that, I would like to thank you all for your time today. And under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member.

This hearing of the Subcommittee on Conservation and Forestry is now adjourned.

[Whereupon, at 11:33 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY MICHAEL CROWDER, PRESIDENT,
NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Insert

Mr. LAMALFA. . . . So I guess what we are really looking at is that sometimes you are running into inflexibility or lack of knowledge and so you got a hard-and-fast rule that doesn't allow the type of things that would be actually beneficial and towards the goals of the conservation but also help the farmers thrive, and you are finding that you are running into a wall sometimes?

* * * * *

Mr. LAMALFA. . . . So please, anybody on the panel that was—you are nodding your head, too—send your thoughts along as I have run myself out of time here. But as we formulate the next farm bill and these conservation programs, help us to build in the flexibility and adaptability.

NACD believes that providing flexibility within USDA conservation programs allows producers to implement the most effective conservation practices that best fit their unique locations and operations. For example, EQIP permits producers to select between more than 150 eligible conservation practices, which allows Midwest row crop farmers to implement cover crops or no-till, while Louisiana rice farmers can adopt practices to increase irrigation efficiency.

NACD's Farm Bill Task Force has identified some areas within Federal conservation programs where additional flexibility may improve outcomes for producers. For example, the task force believes that CRP should provide more flexibility for producers to utilize haying and grazing in order to meet needs in a timely manner. Generally, NACD believes that encouraging a locally informed and led approach across all conservation programs will provide producers with the flexibility to best meet their needs and put good conservation practices on the ground.

SUPPLEMENTARY MATERIAL SUBMITTED BY LORI FAETH, SENIOR DIRECTOR OF
GOVERNMENT RELATIONS, LAND TRUST ALLIANCE

Insert 1

Ms. PINGREE. Sure. Those are really, really helpful, and it would be great if you do follow up with more details to all of us. I think we are all interested in this.

I also was interested, you mentioned something about including forestry, a forest health set-aside. Do you want to talk a little bit about that, too? I thought that was an important idea. And so many of us have forest lands in our district. Maine is the most forested state in the nation with a lot of private forest land, so that is a big interest to us.

Ms. FAETH. Sure, thank you. In the 2018 Farm Bill, one of the things that wasn't addressed is the gap to provide an easement opportunity for working forested lands, so we are proposing enhancing the existing Healthy Forests Reserve Program to establish a new program called the Forest Conservation Easement Program. It would be a sister program to ACEP where there would be forestland easements, those would be entity-held easements, and then forest reserve easements focused on endangered species and restoration of those lands. And those would be U.S.-held easements. We think this is a much-needed and important complement to the farm bill conservation programs. We would like to see mandatory funding.

We want to be really, really clear that in making sure that there is a working program for working forested lands that we are not attempting to limit or reduce dollars for conservation on our farms and ranches. So we believe that any funding for a Forest Conservation Easement Program must be in addition to the funding for ACEP, and I would be happy to provide more information.

The Alliance believes that the current Agricultural Conservation Easement Program is oversubscribed and under-funded. This is the reason why we will advocate for additional funds for ACEP. Currently, forestland is only eligible through the Regional Conservation Partnership Program. Outside of that, forestland is only allowed in ACEP when it is incidental to the prime farmland or grasslands of special significance priorities within the Agricultural Land Easement Program. Recognizing the threat to our productive farms is real, it is important that the ACEP funding is fully consumed within the priorities of the program. Redirecting any of the ACEP funds specifically to forest interests would undermine the effectiveness and unmet needs of these programs.

We believe our nation's prime forest resources are under a similar threat to development and subdivision as our prime farm and ranchlands. The Healthy Forest Reserve Program is typically deliberated within the forestry title where it is in contention with a huge number of public, state, and private forestry authorities, and only receives discretionary funding authority which has been minimal in recent years. We believe moving the HFRP authority into the conservation title, expanding it to include a component for entity-held easements, and providing mandatory funding can fill the forestry portfolio gap in conservation. Hopefully, with the infusion of IRA funding and the significant role forests play in overall climate and environmental health, the Committee will be able to take up this proposal without reducing the current farm bill mandatory funding levels for ACEP.

The Forest Conservation Easement Program (FCEP) would be a successor to and an expansion of the existing Healthy Forests Reserve Program. FCEP's purpose is to keep private forest land in forest use through conservation easements that purchase development rights from private landowners to prevent conversion to non-forest uses while maintaining working forests, a key strategy for protecting the U.S. forest carbon sink.

FCEP is designed to: (1) significantly improve and enhance the ability of the NRCS to effectively conserve working forests at scale through conservation easements; (2) prioritize keeping forests as forests, which will continue to provide a multitude of environmental, economic, and societal benefits; (3) help landowners restore, enhance and protect habitat for at-risk species while increasing carbon sequestration; and (4) provide landowners with two proven options for placing voluntary conservation easements on their land, with one held by the Federal Government and one held by eligible entities and land trusts. It accomplishes this via two program components: Forest Land Easements (modeled after Agricultural Land Easements under ACEP) and Forest Reserve Easements (as the successor to the Healthy Forests Reserve Program).

The creation of FCEP will not modify ACEP and must not take money away from ACEP. The NRCS easement programs are an important tool for conserving our working lands and must be adequately funded. We believe Congress should significantly increase funding for ACEP in the 2023 Farm Bill while establishing and funding, at a meaningful level, the Forest Conservation Easement Program.

Insert 2

Mr. LAMALFA. . . . So I guess what we are really looking at is that sometimes you are running into inflexibility or lack of knowledge and so you got a hard-and-fast rule that doesn't allow the type of things that would be actually beneficial and towards the goals of the conservation but also help the farmers thrive, and you are finding that you are running into a wall sometimes?

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Mr. LAMALFA. . . . So please, anybody on the panel that was—you are nodding your head, too—send your thoughts along as I have run myself out of time here. But as we formulate the next farm bill and these conservation programs, help us to build in the flexibility and adaptability.

Yes, the whole process for ACEP and RCPP easements has become cumbersome in approving and closing easements. What used to be a 6–8 month process is now well over 18 months which is difficult for our farmers and ranchers to comprehend. Many of our member land trusts hold many more easements than those acquired through USDA funding. We think the Agricultural Land Easement program should provide as much flexibility as possible to the more experienced land trusts. One way to do that is through clarifying the certified entity program to streamline the implementation of entity-held easements for land trusts who meet certain criteria. Since being introduced into the farm bill in 2008, only six entities have received certified status. We believe there is great opportunity to increase the number of trusted partners who meet certification criteria and leverage NRCS resources to help more landowners conserve their working lands. We believe that the certification process and the benefits that certified entities receive could be clarified and streamlined.

In addition to that, we would like to see certified entities recognized across all NRCS easement programs including the Regional Conservation Partnership Program (RCPP). We believe RCPP is a logical place to allow more flexibility, especially with certified entities who have a proven track record of success in the program.

Thank you for your time. We would be glad to provide additional information on any of the questions.

SUPPLEMENTARY MATERIAL SUBMITTED BY SHAYNE WIESE, MANAGER, OPERATIONS,
WIESE & SONS: GOOD DOIN' BULLS; MEMBER, IOWA CATTLEMEN'S ASSOCIATION;
MEMBER, NATIONAL CATTLEMEN'S BEEF ASSOCIATION

Insert

Mr. LAMALFA. . . . So I guess what we are really looking at is that sometimes you are running into inflexibility or lack of knowledge and so you got a hard-and-fast rule that doesn't allow the type of things that would be actually beneficial and towards the goals of the conservation but also help the farmers thrive, and you are finding that you are running into a wall sometimes?

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Mr. LAMALFA. . . . So please, anybody on the panel that was—you are nodding your head, too—send your thoughts along as I have run myself out of time here. But as we formulate the next farm bill and these conservation programs, help us to build in the flexibility and adaptability.

November 11, 2022

Dear Rep. LaMalfa and Members of the House Agriculture Subcommittee on Conservation and Forestry:

Agricultural producers, and specifically cattle producers, are often multi-generational. This means that we understand the land on which we operate, and how to improve efficiency, almost better than anyone. National conservation practice standards do well to take this into account, allowing flexibility for producer innovation and specific on-farm needs. However, lack of local personnel means that NRCS is unable to effectively implement these practices in a timely manner.

As stated in my written testimony, I approached NRCS seeking cost-share assistance for implementation of a water infrastructure project and gave up after a months-long waiting game. Often, when a farmer or rancher seeks cost-share, it's for a necessary project on their operation. In these instances, a producer does not have the luxury of waiting months to hear back from USDA.

During the hearing, Ms. Berg from the National Association of Wheat Growers stated, "Farming, as you know, is . . . each year's different. Each season's different. And it's not in a book somewhere." The same sentiment applies to cattle producers. We welcome opportunities for USDA staff to visit our farms and ranches; it's critically important for them to understand why some practices make more sense for producers to implement than others. For example, burning CRP for mid contract management on my farm would not have been a viable option for me this year. We're in the middle of a drought—why not encourage grazing as a management practice instead?

Increases in personnel and reducing paperwork burdens are key to ensuring that NRCS can respond to cost-share applicants in a timely manner and provide more direct support through technical assistance to producers. As the Committee begins to work on the next farm bill, I urge Members to consider policies that will provide local staff as much flexibility as possible.

Respectfully,

SHAYNE WIESE,
Rancher,
Iowa Cattlemen's Association,
National Cattlemen's Beef Association.

SUBMITTED STATEMENT BY ENVIRONMENTAL DEFENSE FUND, *ET AL.**

The above-named conservation organization appreciate the opportunity to submit written testimony to the Conservation and Forestry Subcommittee after the productive hearing of September 20, 2022 on reauthorization of the Farm Bill's Conservation Title. Our organizations are actively working with producers in the Colorado River Basin to both sustain their agricultural operations in the face of water scarcity and to improve working lands' resilience to drought. The overwhelming consensus from the September 20th hearing was the importance of meeting producers' needs with the reauthorization of the Conservation Title. **Our organizations also support this focus.** Particularly, we write today to emphasize the need expressed during the September 20th hearing:

*Environmental Defense Fund, National Audubon Society, Theodore Roosevelt Conservation Partnership, and Trout Unlimited.

- **to reduce administrative barriers to producers' access to conservation title programs; and,**
- **to increase effective, relevant technical assistance for producers.**

Below, we make several specific recommendations for the Subcommittee's consideration on both of these points.

In addition, as Representative Tom O'Halleran (D-AZ, 1st Dist) raised during the hearing, drought is detrimental to Arizona's agricultural industry. Farmers and ranchers in Arizona and other western states need help with drought resilience practices. As hearing witness Nicole Berg, *President, National Association of Wheat Growers*, recounted as one example, drought can impact wetland plants growing on enrolled CRP (Conservation Reserve Program) acres, and producers need technical assistance in re-establishing good habitat conditions post-drought. We believe that the Farm Bill's Conservation Title must include a focus on programs that can help farms, ranches, and private forest lands:

- **be sustainable and adaptable to long-term droughts and hotter and drier climates.**

I. Producers' Needs in the West.

The western United States' farms, ranches, and private forest lands are confronting new challenges that require immediate and long-term attention. It is undeniable that agriculture and forestry practices have inherent risks. But in recent years, the increasingly extreme weather patterns have become harsher and much more difficult to predict. This has increased the need for rapid mitigation and adaptation in the face of changing conditions. This is especially true in the Colorado River Basin, which has become hotter and drier relative to other parts of the West and is facing a more severe stored water shortage as a result.

Farming and ranching in the Colorado River Basin provide a significant source of food supply for the entire country, and forests serve as the primary source of clean water and natural storage in the Basin's headwaters. However, higher temperatures and prolonged and extreme droughts in the Basin over the past 2 decades have exacerbated wildfire dangers in public forests and private lands, forced a number of ranchers to reduce herd size or exit ranching altogether, and required farmers to navigate significant threats from dry soils, pests, fires, and freezes, among others.

Both farming and forestry systems need to build substantial drought mitigation and resilience to the changing conditions and realities of a hotter, drier climate. The Department of the Interior has a presence and role to help allocate and manage limited water supplies throughout the West. But Interior's programs alone are not enough to provide the drought mitigation and resilience that farming, ranching and forestry require to adjust to the changing conditions seen in the West. The Farm Bill's Conservation Title also plays an important role. Specifically, we urge the Subcommittee to:

- **maintain Conservation Title baseline funding;**
- **maintain the *Inflation Reduction Act's* Conservation Title funding through covered programs to support climate-smart practices;**
- **maintain and improve implementation of the 2018 Farm Bill's western-facing provisions; and**
- **provide drought resilience assistance to producers.**

II. Key Concepts for Improving Producers' Access to Conservation Title Funding and Technical Assistance.

The 2018 Farm Bill created a highly-successful example of efficient delivery of applied conservation to producers with partners through the Conservation Innovation Grants' (CIG) new *On-Farm Conservation Innovation Trials*¹ program. The \$25 million in annual funding to the On-Farm Conservation Innovation Trials program goes directly to partners, which in turn provide technical assistance and payments to producers to implement innovative approaches on their lands. In contrast to the Regional Conservation Partnership Program (RCPP), the CIG On-Farm Trials program has rolled out smoothly, minimized administrative burdens on NRCS staff, partners, and producers, and has already created a track-record of success. In addition, the statutory authority for the CIG On-Farm Trials program is a model for amending the RCPP to reduce the complex administrative barriers and burdens of RCPP.

¹<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/cig/?cid=nrcseprd1459039>.

RCPP, Regional Conservation Partnership Program: The new Salesforce-supported RCPP portal for application submission launched since the passage of the 2018 Farm Bill has added to the workload and time required to apply to RCPP. More significant, however, than the barriers to the application are the significant delays and time required to finalize funding award contracts between partners and the NRCS, particularly around the provision of Technical Assistance. Renewals of prior, successful RCPP proposals were given a streamlined process to receive a second round of funding under the 2018 Farm Bill, but instead encountered years-long delays. In short, RCPP, since the 2018 Farm Bill, has increased administrative burdens on NRCS staff and partners alike, and, has failed to offer a streamlined approach to getting financial and technical assistance to producers. Our conservation organizations have proposed RCPP amendments to adopt the CIG On-Farm Trials contracting and administrative vehicles to streamline RCPP and enhance delivery of technical and financial assistance to producers. We look forward to discussion of these proposed amendments.

P.L. 83-566, Watershed and Flood Prevention Operations: The 2018 Farm Bill recognized the years-long process required to initiate and complete a required Watershed Plan before project implementation and construction for a “P.L. 83-566” project under the Watershed and Flood Prevention Operations program. An approach tried under the 2018 Farm Bill was to authorize the Secretary to grant a discretionary waiver of a Watershed Plan where a Plan is “unnecessary or duplicative,” such as where environmental and cultural resource compliance activities have been completed by another Federal agency. Report language describes this waiver as intended to be used “. . . for work which is categorically excluded from more significant USDA or other Federal agency review, or where adequate planning has already been conducted.” No waivers have been awarded under this 2018 Farm Bill provision (as far as we are aware), and the availability of P.L. 83-566 authority under RCPP has been under-utilized for such activities as small-scale stream restoration to promote drought resilience or multi-benefit irrigation efficiency projects with watershed health and drought resilience benefits. Modernizing the P.L. 83-566 statutory authority to prioritize these types of projects and resilience outcomes is another priority for improving program delivery to producers, especially in the West.

Stand Alone Conservation Innovation Grant (CIG) On-Farm Trials: Make the CIG “On-Farm Trials” a fully-funded, stand-alone program on par with RCPP (\$300 million/year) with a focus on reducing producers’ risk from extreme weather events. This approach would fund and amplify partners’ abilities to provide technical assistance, and in the West, specifically support priorities such as: range restoration/drought resilience through nature-based solutions; soil health improvement; and multi-stakeholder project planning/enhanced Technical Assistance for multi-benefit WME (Water Management Entity) irrigation system efficiency modernization. Support for the latter would produce projects that meet the statutory sideboards of “watershed-wide water conservation,” or “fish and wildlife habitat benefits,” or “environmental drought mitigation.” In particular, CIG’s could focus on solutions that bridge the economic gap between up-front transition costs and long-term economic benefits of adopting the types of practices outlined above to reduce producers’ risk from extreme weather events, including flood, drought, and wildfire.

III. Key Concepts for Improving Producers’ Resilience to Drought.

CREP Drought Pilot: The 2018 Farm Bill created a drought CREP authority in Section 2202(e) (“Drought and Water Conservation Agreements”) to allow compensation for producers’ reduction in consumptive water use. The Farm Service Agency (FSA) determined in its NEPA review that the FSA would not implement this discretionary authority. As drought conditions have deepened in the Colorado River Basin, Klamath, and other areas of the West, the importance and timeliness of this 2018 authority has become apparent. As western states consider actions to reduce consumptive water use, launching a CREP drought pilot could become a priority even before 2023 Farm Bill reauthorization. The CREP drought pilot should also potentially include more flexible arrangements to encourage CREP participation, such as expanding eligible land enrollment to encompass dryland agricultural uses or water-conserving crops, and to transition the CREP-enrolled lands to alternative agricultural or management uses that are sustainable over the long-term in light of water scarcity.

Water Management Entities: The 2018 Farm Bill created a new EQIP provision authorizing “water management entities” (WME) to enter into EQIP contracts with NRCS to implement “watershed-wide” projects that “effectively conserve water” and “provide fish and wildlife habitat or provide for drought-related environmental mitigation” through modernization of irrigation water delivery infrastructure. (*codified at 16 U.S.C. 3839aa-2(h)*). Unfortunately, this new provision not only remains un-

supported by technical assistance but there is little policy guidance on qualifying project types or how WME's can apply for EQIP funds. Based on a survey by Trout Unlimited and the Theodore Roosevelt Conservation Partnership of WME participants, other barriers include NRCS' failure to develop a streamlined application process, requiring applicants to obtain signatures from all water users/landowners within WME boundaries to support the application, and generally a lack of NRCS capacity/expertise in implementing the program.

Water Conservation Practices: The 2018 Farm Bill directed the NRCS to make available to producers "water conservation" practices through EQIP, such as "water conservation scheduling, soil moisture monitoring, transition to water-conserving crops, water-conserving crop rotations, or deficit irrigation." (16 U.S.C. 3839aa–2(h)). This directive remains unsupported by technical assistance. In addition, there is no policy guidance on qualifying EQIP conservation practice standards, or a call for CIG proposals, for example, to develop new conservation practice standards to implement the enumerated water conservation practices.

Forestry Title—Prioritize Nature-Based Solutions: The Forestry Title presents opportunities to advance drought resilience strategies such as science-based forest management through reauthorization and increased funding for the Watershed Condition Framework, and nature-based approaches, including restoration of source water wetlands and riverscapes. With regard to the Water Source Protection Program, the 2023 Farm Bill could reauthorize the program, could specifically include stream, riparian, and wetland restoration within the definition of "forest management activities" under 16 U.S.C. § 6542(e)(1), and reduce the match requirement to enhance program participation and accessibility.

Rural Development Title—Nature-Based Approaches for Drought Resilience: While not in this Subcommittee's jurisdiction, we mention the opportunity to work with the Rural Development Title to align some drought resilience goals. The Rural Development Title establishes, amends, and reauthorizes programs administered by the Rural Development agency within USDA. Rural Development Title programs include, among other things, financial and technical assistance for rural water and wastewater infrastructure and rural economic development. One potential area of drought resilience alignment would be to amend rural water and waste wastewater programs to include green and natural infrastructure projects, and expanding the rural water circuit rider program to include technical support for natural infrastructure.

Conclusion

We appreciate the Subcommittee's focus on reauthorization of the Conservation Title with producers' needs at its center. We hope this written testimony is helpful to the Subcommittee, particularly for meeting the needs of producers in the West. Our organizations look forward to working with Members and staff of the Subcommittee to further develop these key concepts and associated elements to support the drought resilience of working lands in the West.

SUBMITTED QUESTION

Question Submitted by Hon. Tom O'Halleran, a Representative in Congress from Arizona

Response from Lori Faeth, Senior Director of Government Relations, Land Trust Alliance

Question. Ms. Faeth, in your testimony, you focused on your support of easement programs. You also referenced a 2018 report from Colorado State University that showed that landowners with an easement were more likely to change their agricultural practices to improve things such as irrigation.

Could you explain how easements can help preserve groundwater?

Answer. Our member land trusts acquiring and supporting USDA's easement programs set priorities for preserving the agricultural land and the opportunity for the land to continue in production not only economically but also environmentally for future generations.

There is a great example of how easements can help preserve groundwater in the Williamson Valley in Arizona. The owner of Bar Triangle Ranch has placed an NRCS easement over 640 acres of his property. His goal is to place the entire 6,000 acre ranch under an agricultural easement, and he is working with the Central Arizona Land Trust to do so. The easement ties the water rights to the land, meaning it will be forever a part of the ranch and cannot be severed or transferred. That means the surface and ground water will be in place to the benefit of agriculture and the habitat. The benefits of easements are even evident on ranches with rel-

atively low water use because it prevents the ranch from being converted to a higher water use such as a commercial or industrial property. There are other examples of easements protecting groundwater across the West and the country.

Where irrigation is integral to the agriculture production system, we are supportive of continued improvement in the irrigation system's infrastructure and management to promote efficient water use for operation. Programs like Environmental Quality Incentives Program and Conservation Stewardship Program can be used to improve the efficiency and use of irrigation water delivery. We believe landowners of eased lands should have priority access to these programs.

A 2022 REVIEW OF THE FARM BILL
(TITLE XII—DEPARTMENT OPERATIONS AND OUTREACH)

THURSDAY, SEPTEMBER 29, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON NUTRITION, OVERSIGHT, AND DEPARTMENT
OPERATIONS,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 9:31 a.m., in Room 1300 of the Longworth House Office Building and via Zoom, Hon. Jahana Hayes [Chairwoman of the Subcommittee] presiding.

Members present: Hayes, McGovern, Brown, Carbajal, Lawson, Kuster, Panetta, DesJarlais, Baird, Cloud, Cammack, Finstad, and Thompson (*ex officio*).

Staff present: Caitlin Balagula, Amar Nair, Lisa Shelton, Katherine Stewart, Caleb Crosswhite, Patricia Straughn, Jennifer Tiller, Erin Wilson, and Dana Sandman.

**OPENING STATEMENT OF HON. JAHANA HAYES, A
REPRESENTATIVE IN CONGRESS FROM CONNECTICUT**

The CHAIRWOMAN. This hearing of the Subcommittee on Nutrition, Oversight, and Department Operations entitled, *A 2022 Review of the Farm Bill: Title XII—Department Operations and Outreach*, will come to order.

Welcome, and thank you for joining today's hearing. After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions. Thank you to the Under Secretary and to the Administrator for joining today's hearing, which is another in our series of hearings to review the 2018 Farm Bill and prepare for the 2023 Farm Bill. I appreciate you both taking the time to be here and offer your expertise. I especially thank you for being here in person.

During this hearing, we will hear from the USDA about the implementation of the 2018 Farm Bill provisions and the impact on Department operations and outreach programs like the Beginning Farmers and Ranchers Development Program. This is also an opportunity to learn how the COVID-19 pandemic and other events over the past 4 years have impacted the Department and these important programs. Today's testimony will be critical as we craft the 2023 Farm Bill and will help to ensure that we do so with an eye on how the structure and operations of USDA impact our nation's farmers, ranchers, and all those the Department serves.

USDA is comprised of 29 agencies and offices with more than 100,000 employees. And there are more than 4,500 USDA offices in the U.S. and across the world. Ensuring that Congress properly funds, supports, and oversees USDA operations so that the Department operates effectively, meaning both that it is fully staffed and its programs operate properly, is critical to maintaining the American food supply and feeding our nation for years to come. It is also critical to ensure that USDA's external-facing operations are running smoothly, and that USDA farm programs are reaching all of our country's producers, which is where the outreach programs serve a crucial role.

We know our nation's producers are getting older. As of 2017, more than $\frac{1}{3}$ of America's farmers were 65 or older. The average age of producers in the U.S. is about 58, up from previous years in the Agricultural Census, a continuing trend we have been seeing for some time. In Connecticut 5, which is my District, 32 percent of farmers are 65 or older, so we are doing slightly better than the nation as a whole. But, like the country, we are still in dire need of more new and beginning farmers.

To strengthen the future of agriculture in America, it is important that USDA programs are accessible to all producers. Supporting our new and beginning farmers who are in the first 10 years of operation is key to cultivating the future of American agriculture. Encouraging more people from every background to go into farming is also key to ensuring we have a strong agricultural system for many decades to come. That is why USDA outreach to underserved communities like farmers of color, women, veterans is critical to ensuring these communities have the resources they need to succeed.

According to the 2017 Census of Agriculture, only 1.7 percent of all producers identified as American Indian or Alaska Native, 0.6 percent identified as Asian, 1.3 percent as Black or African American, 0.1 percent as Native Hawaiian or other Pacific Islander, 0.8 percent as more than one race, and 3.3 percent as Hispanic, Latino, or Spanish origin. Only about 11 percent of farmers served in the military, and about 36 percent of producers are women. We can and we must do better.

I look forward to hearing more today about the programs that perform outreach into these communities, including the Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers Program, also known as Sec. 2501 Program and the Beginning Farmers and Ranchers Development Program, and how they support today's producers while cultivating the next generation of farmers.

I want to thank again the Members and the witnesses for joining us today. I sincerely look forward to hearing today's testimony about the importance of USDA outreach programs and the status of Department operations issues, like staffing, IT, and much more.

[The prepared statement of Mrs. Hayes follows:]

PREPARED STATEMENT OF HON. JAHANA HAYES, A REPRESENTATIVE IN CONGRESS
FROM CONNECTICUT

Thank you to the Under Secretary and to the Administrator for joining today's hearing, which is another in our series of hearings to review the 2018 Farm Bill

and prepare for the 2023 Farm Bill. I appreciate you both taking time out of your schedules to us with your expertise.

During this hearing, we will hear from USDA about the implementation of 2018 Farm Bill provisions and the impact on Department operations and outreach programs, like the Beginning Farmers and Ranchers Development Program. This is also an opportunity to learn how the COVID-19 pandemic and other events over the past 4 years have impacted the Department and these important programs.

Today's testimony will be critical as we craft the 2023 Farm Bill, and will help to ensure that we do so with an eye on how the structure and operations of USDA impact our country's farmers, ranchers, and all those the Department serves.

USDA is comprised of 29 agencies and offices with more than 100,000 employees, and there are more than 4,500 USDA offices in the U.S. and across the world. Ensuring that Congress properly funds, supports, and oversees USDA's operations so that the Department operates effectively—meaning both that it is fully staffed and that its programs operate properly—is critical to maintaining the American food supply and feeding our nation for years to come.

It is also critical to ensure that USDA's external-facing operations are running smoothly and that USDA's farm programs are reaching all of our country's producers, which is where the outreach programs serve a crucial role.

We know our nation's producers are getting older. As of 2017, more than 1/3 of America's farmers were age 65 or older. The average age of producers in the U.S. is about 58, up more than a year from the previous Agricultural Census, continuing a trend we have been seeing for a long time.

In CT-5, my District, 32 percent of farmers are 65 or older, so we are doing slightly better than the nation as a whole, but like the country at-large, we are still in dire need of more new and beginning farmers.

To strengthen the future of agriculture in America, it is important that USDA programs are accessible to all producers. Supporting our beginning farmers—farmers who are in their first 10 years of operation—is key to cultivating the future of American agriculture.

Encouraging more people from every type of background to go into farming is also key to ensuring we have a strong agricultural economy for many decades to come. That is why USDA's outreach to underserved communities—like farmers of color and women and veteran farmers—is critical to ensuring these communities have the resources they need to succeed.

According to the 2017 Census of Agriculture, only 1.7 percent of all producers identified as American Indian or Alaska Native, 0.6 percent identified as Asian, 1.3 percent as Black or African American, 0.1 percent as Native Hawaiian or other Pacific Islander, 0.8 percent as more than one race, and 3.3 percent as of Hispanic, Latino, or Spanish origin. Only about 11 percent of farmers served in the military and about 36 percent of producers were women. We can do better!

I look forward to hearing more today about the programs that perform outreach to these communities, including the 'Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers Program'—also known as the 2501 Program—and the Beginning Farmer and Rancher Development Program, and how they support today's producers while cultivating the next generation of farmers.

Thank you again to our Members and witnesses for joining us today. I sincerely look forward to hearing today's testimony about the importance of USDA outreach programs and the status of Department operations issues, like staffing, IT, and much more.

The CHAIRWOMAN. Unfortunately, our Ranking Member from Nebraska, Mr. Bacon, is unable to join us today. We wish him well and hope that he is feeling better. I am sure that he will be tuned in, and if he has questions, he will reach out. I now recognize Chairman Scott if he is here for any opening comments that he would like to make. I don't believe the Chairman is here, so I will recognize the Ranking Member, Mr. Thompson, if you would like to make any opening remarks.

**OPENING STATEMENT OF HON. GLENN THOMPSON, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. THOMPSON. Well, good morning, everybody. And thank you, Chairwoman Hayes, for hosting this hearing to discuss the Miscellaneous Title of the farm bill. And while Title XII is literally a

large title that includes a variety of provisions, we are focused today on a few select provisions that impact Department operations and outreach. And as we prepare for the next farm bill, it is important to ensure young, beginning, socially disadvantaged, and veteran farmers know about and have access to USDA programs and the benefits they provide.

If we are serious about restoring a robust rural economy, it is important to evaluate the programs and outreach that impact our farmers, ranchers, foresters, and those living in rural America, or, as I like to call it, essential America because everything that a family needs—and whether they live down a country lane or in a densely populated city, those things that are essential come from that part of our nation and families, the hardworking families that provide it.

And I look forward to hearing from USDA about how they are implementing some of the new positions and existing programs authorized in the 2018 Farm Bill. I would like to thank Under Secretary Jacobs-Young and Administrator Ducheneaux for taking the time to be with us today. Dr. Jacobs-Young, I look forward to having you back before the Committee to talk about the important work you are spearheading in the Research, Education, and Economics mission area as well.

So, with that, Madam Chairwoman, thank you so much, and I yield back.

The CHAIRWOMAN. Thank you, Mr. Thompson.

The chair would request that other Members submit their opening statements for the record so witnesses may begin their testimony and to ensure there is ample time for questioning.

Today, we are joined by two witnesses from USDA. Our first witness is Dr. Chavonda Jacobs-Young, the Under Secretary for Research, Education, and Economics, or REE, and Chief Scientist at USDA. Prior to being confirmed as REE Under Secretary, Dr. Jacobs-Young served in various roles at USDA for 2 decades, including most recently as Administrator for USDA's Agricultural Research Services from 2014 to 2022. Dr. Jacobs-Young holds a B.S., an M.S., and a Ph.D. from North Carolina State University and was the first Black woman in the U.S. to earn a doctorate in wood and paper science.

Our second witness is Mr. Zach Ducheneaux, the Administrator of the Farm Service Agency at the U.S. Department of Agriculture. Mr. Ducheneaux previously served as the Executive Director of the Intertribal Agricultural Council, an organization he worked at for over 2 decades. His family operates a fourth-generation ranch in the Cheyenne River Sioux Reservation.

Welcome to our witnesses today. We thank you so much for being here. We will now proceed to hearing your testimony. You will each have 5 minutes. The timer should be visible to you and will count down to zero, at which point your time has expired. Dr. Jacobs-Young, please begin when you are ready. You have 5 minutes for testimony.

**STATEMENT OF HON. CHAVONDA JACOBS-YOUNG, PH.D.,
UNDER SECRETARY FOR RESEARCH, EDUCATION, AND
ECONOMICS AND CHIEF SCIENTIST, U.S. DEPARTMENT OF
AGRICULTURE, WASHINGTON, D.C.**

Dr. JACOBS-YOUNG. Chairwoman Hayes, Ranking Member Bacon, and Members of the Committee, thank you for the opportunity to come before you today to discuss Title XII of the farm bill. As Under Secretary for the United States Department of Agriculture's Research, Education, and Economics mission area, I am excited to be here today to discuss REE's equity and outreach efforts.

The REE mission area is rooted in partnerships, partnerships with technical assistance providers, including the Cooperative Extension System, that gives producers the tools they need to adapt as they feed the world; with institutions to support the next generation of agricultural scientists; and with Congress to ensure that decision-makers have the tools they need to support farmers or ranchers across the country.

Production agriculture requires constant innovation and adaptations as farmers and ranchers pursue climate-smart solutions to extreme weather, rural businesses seek markets, and underserved communities seek trusted partners to tackle systemic issues. Outreach and access to information underpins each of these objectives, and when appropriately resourced, REE is well-positioned to be a partner in providing timely outreach, research, training, extension, and economic analysis to support informed decisions.

The challenges faced in agriculture, human and animal health, food supply, and conservation are immense, and helping producers tackle these issues is critical. We must meet those challenges head on and need a robust and diverse agricultural workforce to do so and leverage existing partnerships to help achieve that outcome. First, this means ensuring that the REE workforce feel supported and able to carry out their mission to provide outreach to producers. REE faced significant staff losses over the past 5 years, and rebuilding that capacity is a key priority for the mission area. It has never been more critical to restore our employees' voices and support their efforts to advance the agency's mission.

The President and Secretary have both been very clear: This new workforce must look like America, particularly to ensure that we are conducting equitable outreach to producers. Investing in inclusion, diversity, and inspiring future generations through formal and informal learning is critical for the future. As an agricultural scientist myself, I know that talent must be inspired, nurtured, and advanced across the country if the United States is to maintain its global leadership in science and technology.

That is why Secretary Vilsack recently announced \$250 million for minority-serving institutions that create career development opportunities in agriculture through the From Learning to Leading: Cultivating the Next Generation of Diverse Food and Agriculture Professionals, and we call it the NEXTGEN program. This competitive program opportunity made possible through investments provided in the American Rescue Plan Act (Pub. L. 117-2), ARPA Section 1006, as amended by Section 22007 of the Inflation Reduction Act (117-169), is aimed at attracting, inspiring, and retaining diverse and talented students at minority-serving institutions for ca-

reers in food, agriculture, and related disciplines with an emphasis on Federal Government sector employment.

USDA is dedicated to ensuring equity across its agencies and developing a diverse workforce. At REE we know that supporting 1890 land-grant universities is vital to make a strong, life-changing impact towards Secretary Vilsack's vision. In Fiscal Year 2021, the National Institute of Food and Agriculture administered 16 programs specifically for minority-serving institutions, with over \$250 million in funding and over \$974 million in total grant awards to 1890 institutions in the past 5 years.

The Beginning Farmer and Rancher Development Program is a key component of NIFA's Title XII outreach. This program provides unique educational training and assistance and outreach opportunities to help ensure that there will be a next generation of farmers and ranchers, regardless of age or production choice.

In my time leading REE and in my 20 years in Federal service, I have had the opportunity to travel across the country and meet with many of the people we serve. I have witnessed states in every region of the country and many of your districts meeting with the people you represent. They are optimistic about the future of agriculture, and so am I. President Biden, Secretary Vilsack, and REE are poised to support transformation in agriculture. We can meet and expand our commitment to leveling the playing field for farmers and ranchers as they work to feed the world, and I look forward to working with the Subcommittee and full Committee to support this mission.

[The joint prepared statement of Ms. Jacobs-Young and Mr. Ducheneaux follows:]

JOINT PREPARED STATEMENT OF HON. CHAVONDA JACOBS-YOUNG, PH.D., UNDER SECRETARY FOR RESEARCH, EDUCATION, AND ECONOMICS AND CHIEF SCIENTIST, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.; ZACH DUCHENEAX, ADMINISTRATOR, FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairwoman Hayes, Ranking Member Bacon, and Members of the Committee, thank you for the opportunity to come before you today to discuss Title XII of the farm bill with a specific focus on the Department's equity and outreach efforts. As the Under Secretary for the United States Department of Agriculture's Research, Education, and Economics (REE) mission area and the Administrator of the Farm Service Agency, we have seen the commitment of our staff across the nation, from our employees who work directly with Indian Country to our staff working in the Deep South, each coast, and many places in between. We have witnessed, firsthand, our employees' commitment to providing equitable access to and delivery of USDA programs and services including our farm loan programs, standing and *ad hoc* disaster assistance programs, partnerships with Minority-Serving Institutions, and commitment to developing a diverse workforce.

Production agriculture requires constant innovation and adaptation as farmers and ranchers pursue climate-smart solutions to extreme weather, rural businesses seek new markets, and underserved communities seek trusted partners to tackle systemic issues. Access to information and outreach underpins each of these objectives, and REE and FSA are well-positioned to be partners in providing timely research, tools, extension, and technical support producers need.

We know that family farms and ranchers want to stay on their land, like they often have for generations. That's why we are pleased that President Biden and Secretary Vilsack are strongly committed to supporting equitable outreach to producers, which we believe will define agriculture for coming decades. In August, the Department announced availability of up to \$550 million in American Rescue Plan Act funding to support projects that enable underserved producers to access land, capital, and markets, and train the next diverse generation of agricultural profes-

sionals. These provisions aim to help ensure underserved producers have the resources, tools, programs, and technical support that they need to succeed.

National Institute of Food and Agriculture (NIFA)

The challenges facing agriculture, human and animal health, food supply and conservation are immense, and helping producers tackle these issues is critical. We must meet those challenges head on and need a robust and diverse agricultural workforce to do so and leverage existing partnerships to help achieve that outcome.

First, this means ensuring that the REE workforce feels supported and able to carry out their mission to provide outreach to producers. REE faced significant staff losses over the past 5 years, and rebuilding that capacity is a key priority for the mission area. Rebuilding capacity will improve our ability to support the nation's farmers, producers, and consumers from the farm to the dinner table. It's never been more critical to restore our employees' voices and support their efforts to advance the Agency's mission. The President and Secretary have both been very clear—this new workforce must look like America, particularly to ensure that we are conducting equitable outreach to producers. Investing in inclusion, diversity, and inspiring future generations through formal and informal learning is critical for the future. As an agricultural scientist myself, I know that talent must be inspired, nurtured, and advanced across the country if the United States is to maintain its global leadership in science and technology. That's why Secretary Vilsack recently announced \$250 million for Minority-Serving Institutions that create career development opportunities in agriculture for the From Learning to Leading: Cultivating the Next Generation of Diverse Food and Agriculture Professionals (NEXTGEN) program. This competitive funding opportunity, made possible through investments provided in the American Rescue Plan Act (ARPA) Section 1006, as amended by Section 22007 of the Inflation Reduction Act, is aimed at attracting, inspiring, and retaining diverse and talented students at minority-serving institutions for careers in food, agriculture, and related disciplines, with an emphasis on Federal Government sector employment. USDA is dedicated to ensuring equity across its agencies and developing a diverse workforce at all levels.

At NIFA, we know that supporting 1890 Land-grant Universities is vital to making strong, life-changing impact toward Secretary Vilsack's vision. In Fiscal Year 2021, NIFA administered 16 programs specifically for Minority Serving Institutions with over \$250 million in funding; and over \$974 million in total grant awards to 1890 Institutions in the past 5 years. Our 1890 Scholarship program has also invested over \$19 million to support undergraduates majoring in food and agriculture-related degree programs to increase the Next Gen Workforce in food and agriculture. In addition to the scholarships, NIFA also provided \$6 million in support of four Centers of Excellence and more than \$20 million in recent capacity-building grants, ensuring our 1890 Institutions will continue to make major advancements in research, education and Extension. In May, we announced another \$4 million investment in two additional 1890 Centers of Excellence.

The Beginning Farmer and Rancher Development Program is also a key component of NIFA's Title XII outreach. This program provides unique educational, training assistance and outreach opportunities to help ensure there will be a new generation of farmers and ranchers—regardless of age or production choice. During Fiscal Year 2021, NIFA awarded over \$50 million for 85 newly funded grants and 55 continuation Beginning Farmer and Rancher Development Program projects. NIFA is also home to the Enhancing Agricultural Opportunities for Military Veterans Program, which provides grants to nonprofit organizations to increase the number of military veterans gaining knowledge and skills through comprehensive, hands-on and immersive model farm and ranch programs. The program encourages the development of training opportunities specifically designed for military veterans. AgVets projects offer onsite, hands-on training and classroom education leading to a comprehensive understanding of successful farm and ranch operations and management practices. Projects may also offer workforce readiness and employment prospects for service-disabled veterans as well.

Farm Service Agency

As we continue to increase and improve access to programs and services, FSA has identified and taken advantage of opportunities to advance equity through our programs and services. We began by establishing an Equity Officer position which sits in the Administrator's Office. This position provides guidance and the equitable review of the Agency's overall programs and services, including farm program and farm loan program implementation, along with agency efforts focused on supporting and uplifting urban agriculture, beginning farmer and ranchers, heirs' property and fractionated land issues, and Justice40. The Justice40 Initiative aims to ensure that

Federal investments benefit communities that are marginalized, underserved, and overburdened by the effects of climate change and underinvestment. The Equity Officer also helps guide the Administrator in ensuring our County Committees approach their work with an equity lens; supporting diverse hiring, recruitment, and retention; and improving the customer experience of all producers who seek assistance from the FSA. In addition to the Equity Officer, FSA will have six equity analysts working in our Outreach Office. These individuals will also work with the Equity Officer and FSA Outreach Director as they work to integrate into their respective Deputy Administrator areas at FSA. Collectively they will:

- conduct data analysis to ensure programs are administered equitably;
- participate in the development of programmatic policies and procedures to avoid unintended consequences in program outreach and delivery; and
- provide detailed analyses of recruitment and retention efforts to ensure the continuation of the best work force in the Federal Government.

We've already mentioned FSA's Outreach Office. This office plays a crucial role in coordinating and implementing our Agency-wide activities. These include not just our outreach efforts but also our technical assistance, education, and producer engagement efforts. The FSA Outreach Office also administers millions of dollars in cooperative agreements and partnerships with stakeholders. Our goal is to increase producer participation in FSA programs, with targeted outreach to underserved producers and communities including minority, young, and beginning farmers, ranchers, landowners, and operators who have not participated in or have received limited, and sometimes, zero benefits from FSA programs. This level of targeted outreach will improve and increase access to and participation in FSA, and even other USDA agencies' programs.

One of the many ways we have implemented targeted outreach is through our work across FSA to support beginning farmers and ranchers. At FSA, and throughout USDA, we understand that ensuring the success of beginning farmers and ranchers is critical to the future of the agriculture industry. USDA has a long history of recruiting and supporting the next generation of farmers and ranchers, especially the viability of beginning farmers and ranchers. FSA supports this work by providing dedicated staff to support field employees in reaching new farmers, providing ongoing trainings to employees, creating educational materials targeting beginning farmers, and by collaborating with agencies to reduce barriers to program participation.

This work is underscored by the announcement of our most recent land access program—the Increasing Land, Capital, and Market Access Program, through which FSA will administer up to \$300 million in grants and cooperative agreements as authorized by the American Rescue Plan Act Section 1006, as amended by Section 22007 of the Inflation Reduction Act. Through this program FSA will fund land access projects that help underserved producers by increasing their land access, capital access, and/or market access.

We'll conclude with this: what we have provided is only a brief look into the work we are doing at FSA to ensure equity and increase and improve outreach. We have a full suite of projects and programs that are either currently in the works or will soon be established to meet the diverse needs of our producers and stakeholders. Whether we are addressing Taxpayer Education, utilizing Limited English Proficiency tools to connect with producers, or expanding our programs to meet the needs of urban and suburban producers, FSA is excited about the incredible work our dedicated staff at headquarters and across the nation conduct daily to reach current and future FSA and USDA customers.

Conclusion

In our time leading our respective agencies, we have had the opportunity to travel across the country and meet with many of the people we serve. We have visited states in every region of the country—including in many of your districts—and met with the producers and communities you represent. They are optimistic about the future of agriculture, and so are we. President Biden, Secretary Vilsack, our mission areas, and the rest of the team at USDA are all poised to support a transformation in agriculture—through which we can meet and expand our commitment to leveling the playing field for farmers and ranchers as they work to feed the world. I look forward to working with the Subcommittee and full Committee to support this mission.

The CHAIRWOMAN. Thank you.

Mr. Ducheneaux, when you are ready, you can begin your testimony. You have 5 minutes.

STATEMENT OF ZACH DUCHENEAX, ADMINISTRATOR, FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. DUCHENEAX. Thank you. Chairwoman Hayes, Ranking Member Bacon, Members of the Subcommittee, it is truly an honor and a privilege to appear before this august body as your Farm Service Agency Administrator and to visit about the work that I have the further honor and privilege to lead. I am Zach Ducheneaux, and I have been in this role since February of 2021. Prior to this, I was the third generation on my family's ranch on the Cheyenne River Sioux Reservation, and I am proud to have raised the fourth generation on the ranch and even prouder to have recently welcomed the fifth generation to that same place where my ancestors lived and produced food since time immemorial.

As a former rancher and a lifelong advocate for underserved people, I have approached my work at the FSA with a personal understanding of where we have room for improvement and also some of the places where, through partnerships, we can double and triple the impact of our work, particularly in underserved communities. By bringing new producers and partners into the fold, we can move towards the goals that we all should share, to help producers access more and better markets, to build resilience, to mitigate the market impacts that linger after what we hope is a once-in-a-generation pandemic, to quickly recover from the more frequent and more severe natural disasters, and to be part of a climate solution through a strength that is inherent in diversity of people, production, ideas, and solutions.

I have had the good fortune to visit with our FSA employees across the country, and in every county office, I have tried to take time to listen and gain more understanding of the passion that drives them as they work tirelessly to deliver our *ad hoc* pandemic and disaster assistance programs, to say nothing of their normal role in providing vital standing programs and services. I have witnessed firsthand many of our employees' commitment to providing equitable access to and delivery of USDA programs and services across rural, urban, and suburban communities. Looking ahead, my goal is to weave the ethic of equity into the DNA of the Farm Service Agency so that it is organic in every interaction we have with producers, every program we deliver, and every service we provide.

I would be doing a great disservice if I didn't use a portion of this time with you to thank our staff for their tireless efforts and to encourage all of you to do the same the next time when you are back in your district, driving by one of our over 2,100 county offices. I am pleased to share some of the work with you that we are doing now.

First, equity starts at the top. That is why under the leadership and guidance of Secretary Vilsack we have established an Equity Officer position in the Administrator's office. Latrice Hill brings decades of experience to this role and significant expertise, and I look forward to working with her to make sure that my office is helping to guide the equitable review of every aspect of our work.

In addition, we will also have six equity analysts working in the outreach office who will work with the Equity Officer and the Outreach Director to bring this important effort closer to the producers through immersion in each of our Deputy Administrator areas here at the Farm Service Agency. That outreach office also plays a critical role in coordinating and implementing agency-wide activities. These include not just our own outreach efforts but also support technical assistance, education, and producer engagement efforts through millions of dollars in cooperatives agreements, partnerships with stakeholder groups of all kinds.

Our goal is to increase producer participation in our programs, with targeted outreach to underserved producers and communities, including women, veterans, minority, young and beginning producers who have not participated in or receive limited and sometimes zero benefits from our programs.

Currently, at the direction of Congress, the office is at various stages of implementing historic levels of agreements, programs, and opportunities in the next fiscal year that will have hundreds of millions of dollars of impact. Of note, Section 1006 of the American Rescue Plan Act authorized over \$1 billion for the Secretary of Agriculture to provide assistance and support for underserved producers through technical assistance and cooperative development training. From this funding, FSA has established the Increasing Land, Capital, and Market Access Program, providing up to \$300 million to work with stakeholder groups and advanced system changing solutions to improve access to land capital and markets for underserved producers.

Because our workforce should reflect the producers we serve and the next generation of leaders that we hope to cultivate, we have expanded our use of special hiring authorities and implemented several new recruitment efforts. This year, FSA is funding scholar and intern programs with targeted outreach to our 1890 and 1994 land-grant institutions, in addition to our existing Pathways Student Internship Program, where participation has also markedly increased in the last year.

There are many more efforts underway that I hope to visit with you about, and I thank you again for the opportunity to be here in front of this body.

The CHAIRWOMAN. Thank you both so much for your testimony.

At this time, Members will be recognized for questioning in order of seniority, alternating between Majority and Minority Members. You will each be recognized for 5 minutes in order to allow us to get to as many questions as possible. Please keep your microphones muted until you are recognized so that we can minimize background noise.

I now recognize Chairman McGovern. You have 5 minutes for questioning. You may begin.

Mr. MCGOVERN. Well, thank you very much. And thank you to our witnesses for joining us today. And Chairman Hayes, again, thank you for convening this hearing.

Title XII doesn't often get the spotlight, but it gets to the heart of how we can build a more just and inclusive food system. How ambitious we are about empowering farmers, especially those who are new to agriculture or have historically not had a seat at the

table, will be a key measure of whether the next farm bill is a success.

So, I want to focus my time on USDA's outreach efforts. And I appreciate that both of our witnesses affirmed that it is a priority for the Department. In August, I hosted my annual district farm tour, visiting over a dozen Massachusetts farms over 2 days and hearing directly from our farmers. Something that came up at every farm was the challenge of applying to USDA or state programs. Farmers, especially small farmers, have so much on their plate. And even if they are perfect candidates for a USDA grant or cooperative agreement, even if they know about the existence of a program, they may not have the capacity to engage in the application process.

So, I have two questions for both of you. First, could you please elaborate on the ways that USDA is working to expand outreach efforts, especially to small, independent, diversified operations, beginning farmers, and socially disadvantaged farmers? And second, do you believe that there are holistic changes that we can incorporate into the next farm bill to expand programming accessibility?

Dr. JACOBS-YOUNG. Thank you for the question, Representative McGovern. And yes, it is so important for us to be on the ground and working and witnessing the producers and learning from them what their highest priorities are. We have been very fortunate to receive funding from Congress that has supported us in our efforts to increase the amount of technical assistance and outreach that we give to these small farmers. I just spent last Monday, Monday of last week, I did a small conference, a small farmers conference in Hattiesburg, Mississippi, talking to a group of small farmers and learning from them what their highest priorities are. And you are absolutely correct. And these organizations that we are partnering with, with new funding, are helping us reach out to those farmers to learn more about the programs and services that we have at USDA and providing that technical assistance and bridging the gap between their day-to-day experiences and the services that they are eligible for. And so, I think that that is a very important point. And I know the Administrator here with his agency are doing a lot of work on the ground, and so I am going to turn to the floor to Zach.

Mr. DUCHENEUX. Thank you. Very good question. My background is in outreach and technical assistance. And the reality is many of our stakeholders do not have the capacity to leverage the trust that they have built in their communities of stakeholders to help them get into our programs. You are exactly right. Our programs often miss folks that are ideally situated to be those that we serve.

One of the things that we are doing to address that is to engage in multiyear agreements with these cooperators so that they know that they will be able to bring that staff on that can help us with that outreach effort, retain them, and train them as we work to meet producers where they are at, at the agency. We are streamlining our processes. We are reducing the size of our farm loan application, which is critical to producers being able to get in there and participate meaningfully. And we are exploring all of the flexibility that we can within all of our programs in order to try to meet

the need of those particular producers, who we should be reaching out more to serve.

Mr. MCGOVERN. Thank you very much. I yield back, Madam Chairwoman.

The CHAIRWOMAN. Thank you, Chairman McGovern.

I now recognize the gentleman from Pennsylvania. Mr. Thompson, you have 5 minutes for questioning.

Mr. THOMPSON. Thank you, Madam Chairwoman. Administrator Ducheneaux, thank you so much for your leadership and for your staff. As I travel around the country from time to time, I stop in and cold call FSA offices. I don't really introduce myself until I find out what they think. But then I always take the time to thank them for what they do, all of our USDA offices. I appreciate that staff.

I would like to discuss the role of the FSA county committees. From my perspective, my constituents and people I talk with across the country generally like having some of these decisions made at the local level rather than relying on a state officer or, worse yet, Washington having to adjudicate issues that they may have. Can you speak to the role that FSA county committees play in delivering FSA programs, and do you have thoughts on the Equity Commission's recommendation that USDA should consider termination of the county committee system?

Mr. DUCHENEAX. Thank you, Ranking Member Thompson. As I have gone around the country in the last year and a half, I have been a staunch proponent of participation in this opportunity. To me, in the county committee system, I see an opportunity for our producers to be a meaningfully part of the process of delivery of our programs and services. The challenges in some of our communities where producers don't have historic access to those programs, they are not able to get on the ballot and get selected to serve there. We are working with our counterparts and the Deputy Administrator for Field Operations to examine how we can improve outreach to producers so that they are aware of that opportunity to serve and share in that. I don't think that exists anywhere else in the Federal Government, so it is really a unique opportunity that we should capitalize on.

With respect to the Equity Commission's recommendation, I haven't seen it verbatim, but I understand that it asks about an analysis of what a world without county committees would look like. And the work that the Equity Commission is engaged in is at the direction of Congress, and their job is to take an outside look at the realities of the delivery of services all across the Department. And I think they are even reaching broader than that, looking across the Federal Government to see how the work and equity can be amplified.

Given that, and the fact that it is chartered by Congress, we will give every recommendation that they make due consideration and try to find a way to improve the work that we do to get at the ultimate end goal for all of us, which is equitable participation, equitable delivery of services, and equitable representation on the county committees.

Mr. THOMPSON. Yes, which I see—eliminating county committees, that eliminates opportunities for people, more diverse individ-

uals to be a part of those positions, you concentrate power at the state level, or here in Washington, it is just counterintuitive to what this—I find it hard to believe the Equity Commission came up or is even talking about that as a proposal.

I would be remiss if I didn't recognize the role that land-grant universities play in creating the next generation of agriculturalists and providing outreach to the agriculture industry. I had the privilege over the past couple of weeks of visiting a couple of schools, one on the East Coast, one in Texas, and it is just impressive, the amount of the quality of individuals, not just the faculty, but certainly with students, graduate and undergraduate.

So, while some states have only one land-grant university, other states have two or three. Under Secretary, can you talk about how these land-grant universities coordinate with USDA to ensure producers in every corner of every state can be reached?

Dr. JACOBS-YOUNG. Absolutely. In recognizing our partnership with USDA and the land-grant university system, we were actually created to be partners, long-term partners over 150 years ago. And the big jewel we have in the United States that I have talked with many international colleagues about is the Extension Service. So, we conduct research. ARS, NIFA provide funding for research. Land-grant universities produce a lot of research. And Extension Service and the partners and the cooperatives that they have take all of that research and they translate it into tools that people can use. And so, it is a beautiful system when it is properly resourced and it works, that we have I would say the full supply chain of conducting the research and disseminating it to the producers in every corner of this country.

Mr. THOMPSON. Yes, it seems like while some program and research stays within the halls of the university at the end of the day, that is not agricultural research. It almost without exception goes for the greater good. So, thank you so much.

Dr. JACOBS-YOUNG. Right.

Mr. THOMPSON. Thank you, Madam Chairwoman.

The CHAIRWOMAN. Thank you, Ranking Member Thompson.

I now recognize the gentleman from California, Mr. Carbajal. You have 5 minutes for questioning.

Mr. CARBAJAL. Thank you, Madam Chairwoman. And thank you, Dr. Jacobs-Young and Administrator Ducheneaux, for your testimony today. And thank you for the great work you do for our country, day in and day out.

USDA offers so many beneficial programs and grants to farmers and ranchers. These programs aren't very helpful if people don't know about them. I am glad to hear about the work being done through the Beginning Farmers and Ranchers Development Program. It is obviously very vital that we prepare the next generation of farmers, especially for beginning, underserved, and veteran farmers. However, it is equally important that existing farmers and ranchers are also aware of the programs and resources available at the USDA.

Administrator Ducheneaux, Section 12306 of the 2018 Farm Bill provided additional support for veteran farmers across USDA programs, including FSA down payment loans, reduced interest rates on guaranteed loans, and increased coverage under the Emergency

Assistance for Livestock, Honeybees, and Farm-Raised Fish Program, ELAP. I know that is a mouthful. Earlier this year, FSA issued a final rule implementing some of those adjustments. Can you please speak to any improved outcomes that you have seen for veterans as a result? And are there other ways that Congress and USDA can better support veteran farmers and producers?

Mr. DUCHENEAUX. Yes, sir, and thank you for the question. This one is really near and dear to me. My father was a veteran of the Marine Corps, and I have had a chance to work with a lot of the veteran farmers and ranchers across the country. I worked very closely with Gary Matteson at the National Veteran Farmer Coalition. One of the challenges that we have with regard to serving underserved populations like veterans, minorities, and what have you, we don't have any programs within FSA that are specifically designed for their unique circumstances. We will set aside some of our funding for those programs, but they still have to come in the door and qualify just like everybody else, on the same terms as everybody else.

And with respect to veterans, sir, we did make those announcements about the ELAP program. And I am not going to go through the whole jargon there that you did, but I agree that is a challenging mouthful to say. We had a veteran call us. He is a Vietnam veteran. And he said, "You did this additional benefit to veterans." And this is in our forage hauling that we announced last year to help producers mitigate the impacts of the drought. He said, "But, I am being told I don't qualify." So, I thought, well, that seems like a really simple fix. So, I went to work, and I worked with OGC and the Department, and it turns out we can't fix that. There is a statutory prohibition that limits our ability to address veteran issues in those programs. They have to be a veteran within the last 10 years, have to be no more than 10 years in farming or brand new to farming. So, for some of the existing veterans, it is really challenging to participate. But we guide our staff to treat everybody as though we need them in the building to work. We are pushing our boundaries for inclusion and not exclusion, so we were able to find other ways to help veterans who don't meet those three criteria in that section of the code.

Mr. CARBAJAL. Thank you. Administrator Ducheneaux, can you also speak to the current outreach FSA does to existing farmers to make them aware of the programs and the resources offered by USDA, especially after a major piece of legislation like the farm bill is signed into law? And how can Congress help improve this outreach?

Mr. DUCHENEAUX. Absolutely. As we have started our work with the guidance of Secretary Vilsack, we were told to engage with stakeholders early and often. And as you saw through the pandemic assistance programs and the Emergency Relief Program that we have administered in the last year and a half, we did reach out to stakeholders very early, got them involved in the process for building those programs. And I think that we have demonstrated that there is a lot of satisfaction there. That doesn't mean that all the work is done. As I mentioned in my oral testimony, there is a lot of work to do yet. We continue to look for opportunities to en-

gage with Congress and our stakeholder groups to improve our outreach and get it down there at a more granular level.

Mr. CARBAJAL. Thank you. I am going to ask this last question, but I know I am running out of time, so if you could submit something in writing, I would appreciate it. Administrator Ducheneaux, when conducting outreach to individuals, whether farmers, ranchers, or someone else seeking assistance from USDA, do you have a program to employ someone like *promotoras* that serve Latino communities? I don't know if you are familiar with that concept.

The CHAIRWOMAN. Thank you, Mr. Carbajal. Mr. Ducheneaux, if you can submit that question, we will make sure that you get it.

Mr. CARBAJAL. Thank you.

The CHAIRWOMAN. Thank you.

I now recognize the gentleman from Indiana, Mr. Baird, who is joining us virtually. You can unmute and ask your questions. You have 5 minutes.

Mr. BAIRD. Thank you, Madam Chairwoman. I really appreciate the opportunity to have this discussion. And I really appreciate Under Secretary Jacobs-Young for her new appointment and look forward to working with her in the future.

So, my question really deals with the fact that she and I are both graduates of the undergraduate land-grant system and fully understand and appreciate and recognize the importance the system plays in educating our next generation of agriculture and training our next generation of farmers and ranchers.

So, Madam Under Secretary, are there any specific programs or topics mentioned under the Beginning Farmers and Ranchers Development Program that you would like to see prioritized in the 2023 Farm Bill as we work through that?

Dr. JACOBS-YOUNG. Thank you, Representative Baird, and thank you for taking time to meet with me earlier this month.

The Beginning Farmers and Ranchers Development Program, as you all are aware, is so critically important to helping us create an agriculture enterprise that is climate-smart, robust, culturally responsive, equitable, and most importantly, resilient and enables our farmers and producers to be economically successful. The Beginning Farmers and Ranchers Development Program has been critically important in recognizing—and we just had a question about the veterans—recognizing that there are many who are serving in the military who returned to their homes, and the rural economies have disproportionate number of military folks represented in the military. And so, we want to be able to help those folks reintegrate back into the United States. If they want to return to farming, we want to help them. And if they are new to farming, we want to help them in that case, too. So, there are some special programs that support the veterans, that support underrepresented groups and organizations. And so, we want to make sure that we have a five percent set-aside for our veterans so that we can make sure that we can support them to come back into farming or to enter farming.

We have NIFA's Agency AgVets Program (Enhancing Agricultural Opportunities for Military Veterans) that supports farming no matter how many years they have been in farming. So that is a different program than Beginning Farmers and Ranchers. And then

we have the AgrAbility Program that really is important for helping our disabled farmers stay on the land and continue to be successful, and that helps provide assistive technologies, I mean, all these cases, being able to help with financial planning and overall just to increase economic, environmental, and social sustainability of those farms. And so, we are just very thankful. And we are here to support Congress as you prepare the next farm bill with technical assistance and being able to provide any information that is needed to draft that new, important piece of legislation.

Mr. BAIRD. I really appreciate your perspective on that. And I do think it is important for helping our veterans that are interested in this kind of a program and maybe agriculture to move back into the civilian world. And this kind of a program can be very helpful. And I think from their perspective being out on the land and being in agriculture would be a real asset, so I certainly appreciate your perspective on that, and I appreciate your willingness to work with us to make sure we get that portion of the next farm bill correct. So, thank you very much, Under Secretary.

I would like to move to Administrator Ducheneaux then and talk about this outreach program for beginning farmers and ranchers. And, the 2018 Farm Bill, as you have already mentioned, said to create a team of state beginning farmer and rancher coordinators. So, could you elaborate on the implementation of that program and how you feel that is going?

Mr. DUCHENEAUX. Yes, sir. We have a beginning farmer and rancher development coordinator, or beginning farmer and rancher coordinator rather in the agency. Sarah Campbell is doing good work, working across the Department to make sure that we are coordinating efforts with our friends at NIFA, Rural Development, and what have you. The work that is so critical to beginning farmers and ranchers is getting them in the door, getting them that first interaction. And oftentimes, we don't have the chance to get that second impression. Many of these folks need that second impression, so it is important that we develop the capacity of our co-operators so that they can stay out there and advocate on our behalf.

Mr. BAIRD. I really think you hit on a key issue there. Sometimes looking at the Farm Service Agency or some of the programs that are available, and if you go on the website, you could get lost. So, I think it is really beneficial that we have people to help some of these beginning young farmers get started and get active.

And, one of the things that I see going on in the present time is some of these folks that want to know where their food is coming from, so it is the only opportunity that I have seen in my years to have young farmers get involved because they can go into this specialty, either foods or specialty crops provided to a local restaurant or something, so FSA's help there would be good.

The CHAIRWOMAN. The gentleman's time has expired.

Mr. BAIRD. I am sorry. Thank you, and I yield back.

The CHAIRWOMAN. Thank you so much, Mr. Baird, although I was enjoying listening.

Mr. BAIRD. Didn't mean to bother you.

The CHAIRWOMAN. I now recognize the gentleman from California. Mr. Panetta, you have 5 minutes for questioning.

Mr. PANETTA. Thank you, Madam Chairwoman. I appreciate that and always appreciate the questioning of my good friend, or statement of my good friend, Mr. Baird from Indiana.

Look, let me let me thank you, Madam Chairwoman, for holding this hearing today. Obviously, we have had a lot of hearings on the farm bill, and this type of discussion on how the USDA and its agencies execute Congressional policies and interact with our consumers, with our farmers, with our ranchers, and our partners is absolutely critical. And I think it has been made clear just from the short time of this hearing that at our two witnesses today represent two of the agencies at USDA that really are at the heart and soul of that type of implementation, from training and transitioning our beginning farmers and ranchers, to staffing our USDA offices around the country, to reducing food waste. The leadership and strategic direction that our witnesses provide to American agriculture is absolutely paramount.

And so, we obviously know that there have been challenges, especially with staffing during the pandemic, but also the difficulties of setting up a new Administration, to providing adequate technical assistance to local FSA offices, to supporting many of the programs that this Congress and Administration have rolled out. But those growing pains can be positive if we continue to work through it and if we continue to have discussions like this where we know that we have to work together and we know that we have to listen to the people we represent, especially our farmers, farmworkers, and producers and what they need and what they expect of the USDA.

Now, obviously, when we talk about equity and outreach, we have to talk about everybody responsible for producing our agriculture, our farmers and our farmworkers, our essential farmworkers. And Mr. Ducheneaux, first of all, let me congratulate you on your excellent decision to—on your recent choice for chief of staff. Obviously, that is something that is going to help not just you, not just your office, but going to help all of American agriculture. So good on you for that.

But I also understand that the FSA is standing up a pilot program, and part of that work will help us address our labor shortage, something that I think everybody in this hearing, everybody on the Agriculture Committee, and a lot of people in USDA understand. And so, we have to improve our labor standards for our farmworkers especially. Can you talk about this program's pilot that obviously deals with the labor shortage but also improves our standards for farmworkers?

Mr. DUCHENEAUX. Yes, sir. And, as you are well aware, there are people that know a lot more about this than I, but I am very well-prepared by those folks. As we travel the countryside and look at the realities of our food system that have been so clearly laid bare by the pandemic, we saw grocery stores that didn't have shelves full of meat when there are cows grazing 5 miles away. We saw produce shelves empty. And this Administration has really taken an interest in addressing what causes those shortages because food shortage is a national security issue.

One of those that we hear about every time we go out and talk with a producer or stakeholder group is farm labor. The lack of farm labor is a challenge. Rather than sit back and gnash our teeth

about the program, the Secretary went to work and found a solution, and he is working with our farmworker groups to identify ways to streamline and assist with getting H-2A visa workers in the country to do this work. And we are using \$65 million of ARPA funding to get at that through the stakeholder agreements. We had three listening sessions yesterday to ensure that we are getting it as close to right as possible. But it is important to note, another of the strengths of this Administration is that we don't mind making an adjustment if we don't get it exactly right the first time. And we have demonstrated that in the last year and a half as we roll out some of our other innovative programs in the disaster realm.

Mr. PANETTA. Look, I think you know the H-2A program right now, unfortunately, is the only game in town when it comes to ag labor, and so I appreciate you leaning into this issue, and I also appreciate the fact that you understand the emergency aspect of this issue and that basically, our producers, our farmers need those farmworkers. And obviously, we have to ensure the proper standards for those farmworkers as well. So, thank you for your work on this, and, more importantly, thank you for your continued work on this.

Madam Chairwoman, I yield back.

The CHAIRWOMAN. Thank you, Mr. Panetta.

I now recognize the gentleman from Tennessee joining us on the platform. Mr. DesJarlais, you have 5 minutes for questioning. Please unmute and begin your questions.

Mr. DESJARLAIS. Thank you, Madam Chairwoman.

Administrator and Under Secretary, I just was curious whether you had a strategy to deal with the crisis at the southern border in terms of the influx of several million illegal immigrants, many who will be applying for SNAP benefits under either asylum or because they are under 18.

Mr. DUCHENEAUX. Thank you, Congressman DesJarlais. It is a good and important question in these times. I think it is important to note that people with full bellies are satisfied and happy and contribute to the society. And when we have folks that are hungry, the American people have always stood up and helped to feed them. And it is no less important to feed those folks that are trying to get into this country to be part of the system than it is to feed those that are overseas or in our own rural and urban communities.

Mr. DESJARLAIS. Okay. Do you have any kind of numbers yet? We are getting ready to write a farm bill, and we have to fund the program. Do you have any numbers for us in terms of how many asylum seekers there are or how many children that we will be needing to feed?

Mr. DUCHENEAUX. Sir, I do not have any of those numbers, but I do have faith in the American farmers and ranchers to be able to stand up to the challenge and feed them.

Mr. DESJARLAIS. Okay. Who could get that number for me? Because we have gone through this a few times in this Subcommittee. And you agree that it is going to put a strain on the program, correct?

Mr. DUCHENEAUX. Sir, I don't have the numbers, and that is a little bit outside of the bailiwick of the Farm Service Agency, but I can work with our friends at the Food and Nutrition Service to ensure that you get those numbers.

[The information referred to is located on p. 1619.]

Mr. DESJARLAIS. Okay. Under Secretary, do you have anything that you would like to add to my concerns regarding this problem?

Dr. JACOBS-YOUNG. I would like to add that I think that we should definitely take this back to the Department and work to submit some responses for the record. Administrator Ducheneaux and myself, we are not the experts in this area. However, we have lots of experts at the Department, and we would be happy to provide some responses for the record.

Mr. DESJARLAIS. I would appreciate that. Thank you both for your attendance, and I yield back.

The CHAIRWOMAN. Thank you, Mr. DesJarlais.

I now recognize the gentleman from Florida. Mr. Lawson, you have 5 minutes. Please unmute and begin your questioning.

Mr. LAWSON. Thank you very much. And welcome, everyone, to the Committee. I have a question that is centered around some of the things that Congressman Thompson talked about. Veterans make up 70 percent of agricultural producers with Florida leading as one of the top five states for producers with military service. The 2018 Farm Bill amended the definition of *veteran*, promised to give them the same benefit as beginning farmers and ranchers. Madam Under Secretary, have these updates to Section 12306 increased the enrollment and participation of veteran producers in USDA programs?

Dr. JACOBS-YOUNG. Thank you for your question, sir. So, one of the things I know from the mission area that I am the Under Secretary for in terms of the National Institute of Food and Agriculture, we have significant investments in terms of support for our veteran farmers. And it is for those who are beginning farmers and ranchers, and it is support for those who have been in the farming or ranching industry for quite some time. And working to ensure that we can expand awareness and access and remove barriers to our programs and services, we have been working with many different cooperative organizations to really just help echo some of the work that we are conducting both internal to USDA with our land-grant partners and our Extension Service. And so, we are putting all hands on deck to be able to reach the people who can benefit from the services because with the status of our farmers' average age 58, some of us resemble that remark. We recognize that if we don't have a pipeline primed and prepared to come onto the lands and continue to grow the food and to raise the animals and provide the fiber and fuel that we all enjoy, which enables me to sit here at this table today, that we will be in trouble in terms of protecting the food supply for our country. And so, the veterans are an incredibly important piece of this puzzle, and so we are more than excited about some of the new investments that Congress has entrusted us with, and we want to do the best we can to ensure that all people know about what is available to them and that it is as efficient and effective as possible.

Mr. LAWSON. Okay. Thank you very much. And earlier, you mentioned about land-grant universities as a lifeline for agricultural research, innovation, and development. These institutions educate the next generation of farmers, ranchers, and citizens and really form the backbone of our nation's network of agricultural extension and experiments.

The Chairman of this Committee, and I, have worked a great deal in providing scholarship funding to HBCUs to educate farmers and to get young farmers involved in agriculture.

And so, the question would be the agriculture youth organization coordinators were hired in 2019 to build awareness among youth in agriculture and engage with land-grant universities. Under Secretary, could you expand upon what sort of projects the coordinators have been engaged in with land-grant universities to make this successful?

Dr. JACOBS-YOUNG. So, sir, I would like a clarification. Are we talking about the liaisons to the 1890 institutions?

Mr. LAWSON. Yes. How have they played a role since we are talking about the research that the land-grant institutions are doing? And then at the same time—my time might run out—but agriculture has provided scholarship funding to educate young people at HBCUs in order for them to get a bigger interest in farming and stay in agriculture industry?

Dr. JACOBS-YOUNG. Yes, absolutely. So, I know—in the interest of time—so on last Tuesday, I had an opportunity to visit Alcorn State University and meet with our 1890 scholars, our USDA 1890 scholars, and many of them are off on their way to a professional career in agriculture. And I wish I had more time because I would tell you about some of the exciting things that we shared, and that was all worked through the 1890 liaison who is stationed there at Alcorn State University that helps recruit and retain and helps train and helps provide internship opportunities by working back with the Department. So those coordinators are extremely important, those liaisons. We call them the 1890 liaisons. They are critically important for helping us prepare the next generation of students out of the 1890 institutions.

Mr. LAWSON. Madam Chairwoman, as I yield back, I think this is something that we need a little bit more elaboration on in your Committee. I yield back.

The CHAIRWOMAN. Thank you, Mr. Lawson. And I would agree, 5 minutes is not enough time to hear about all the exciting things that are happening at these land-grant institutions.

I now recognize the gentleman from Texas, Mr. Cloud. You have 5 minutes for questioning.

Mr. CLOUD. Thank you, Madam Chairwoman, I appreciate it. Thank you all for being here today. And I just wanted to start off by thanking Administrator Ducheneaux for helping us with the redfish issue we had after the Texas freeze. I know there is still an issue going on with the pricing. But, first of all, I just wanted to say I was visiting the farms 3 weeks ago, things are still going, and so really appreciate the help with getting that wrapped into ELAP.

Now, my understanding is there is still some discrepancy on the pricing issue. And we are waiting, I guess, on the FSA to kind of

respond at this point and to give their analysis. Do you know when we could expect that? Is there a timeline on that?

Mr. DUCHENEAUX. Yes, so the redfish producers exercised their appeal rights to go to the National Appeals Division to seek a determination on whether or not we used the right information. We got that NAD appeal determination this summer, and we are working on getting back to Mr. Ekstrom and the redfish folks here in the next couple of weeks with our answer.

Mr. CLOUD. Okay. Well, I appreciate it. Thanks so much.

When I am talking to our folks in the ag industry, the thing that I hear most often—other than things on, “Hey, next year’s farm bill”—still have to do with staffing issues in Texas in the FSA offices. And so, I was wanting to see if we can get an update and ask for an update. And then we had a phone call and then we were going to get some—we were expecting a letter would be provided after that phone call, and we hadn’t received any information yet from that. So, I was just wondering where the bottleneck is at the moment. Is it in recruiting? Is it training? Do we have retirements? I guess, in the perspective of our ag workers, what is taking so long to get this issue solved?

Mr. DUCHENEAUX. Well, as of just yesterday, we were at 95 percent fully staffed. And when you consider that that is over 10,000 employees just in the Farm Service Agency, there is some attrition as folks go out and it takes time to onboard.

Mr. CLOUD. Sure.

Mr. DUCHENEAUX. So, honestly, a five percent gap isn’t that bad when you think about the—

Mr. CLOUD. Is everybody back in the office working?

Mr. DUCHENEAUX. Everybody is back in the office. We continue to monitor local COVID realities and take steps to keep folks safe, but every office is open. You may not get to see the smile on faces in a few places because we will wear a mask when there is community spread, but the offices are back open. The biggest challenge that we see in retaining staff is the workload doesn’t match the compensation. We are asking our folks to do yeoman’s work, working overtime, and oftentimes, the wages that they receive in exchange for that time don’t match the responsibility or the importance of the work, sir.

Mr. CLOUD. Okay. Are you looking into ways to automate processes as well? And some of that can be done through technology and updating old systems. I know government is notably—and this isn’t just your agency, this is everywhere—just—[inaudible] behind when it comes to—

Mr. DUCHENEAUX. Yes. I am a big fan of automation, but I am bridging that generation where the folks older than me, they want a person in front of them to talk to, and that is critical that we maintain that county office presence. But at the same time, if we take advantage of technology, we can streamline the processes. We are taking our farm loan application, for example, down from around 35 pages, a lot of which doesn’t matter anyway, down to about 12 pages and getting to the meat of the issue so that we can better use not only the producer’s time but also our employees’ time. And we are taking the lessons we learned in deploying the Emergency Livestock Relief Program and the Emergency Relief

Program phase 1 where we are using information we have already got to deliver those programs to producers out there in the countryside.

Mr. CLOUD. One other challenge I heard that I wanted to bring up was just the issue of cross-agency jurisdictions that happen a lot. There are three or four examples, and maybe we can get you some of these in writing. But, for example, the plains cotton farmers said they would get a form from the ERP in the mail and then when they would try to verify the information for accuracy, FSA would say that your insurance provider had to make that corrected information, but then they go to the RMA and RMA says, no, that is FSA's. And so, it leaves the farmer stuck in limbo there. And we have three or four examples of other things like that where it is cross-agency jurisdiction, which ends up being the farmer *versus* the bureaucracy. At least that is how they feel, and just trying to get an answer and move forward for them is difficult sometimes.

Mr. DUCHENEAUX. Yes, sir. And, as with any new approach, there are growing pains, and we are interested in seeing all of those realities and making adjustments as we go out. But if you would give me the list of those, I will make sure that we get some attention to them.

Mr. CLOUD. Thank you very much.

Mr. DUCHENEAUX. Thank you, sir.

Mr. CLOUD. Thank you, Madam Chairwoman. I yield back.

The CHAIRWOMAN. Thank you, Mr. Cloud.

I now recognize the gentlewoman from Ohio. Ms. Brown, you have 5 minutes. Please unmute and begin your questioning.

Ms. BROWN. Thank you, Chairwoman Hayes, for hosting this timely hearing as Congress continues to prepare for farm bill reauthorization.

Many of the programs and agency-wide initiatives that we have discussed in hearings this year rely on strong departmental operations and effective outreach. It is vital that we continue to support these efforts. So, Dr. Jacobs-Young, how does the USDA measure the impact of its outreach grants and the activities those grants fund beyond the numbers of producers' reached, number of grants, and dollars awarded?

Dr. JACOBS-YOUNG. Thank you for your question. And most recently, Secretary Vilsack announced the \$250 million NEXTGEN program. And in that program where we are working specifically with minority-serving institutions, we are asking on each one of those applications for robust evaluation plans. We also plan to engage with each one of the applicants who are selected for awards throughout the tenure of those award processes. And so, we want to be able to work cooperatively with the minority-serving institutions that will receive the \$250 million in funding.

So now let's talk a little bit about the question: how do we know we have been successful? I think that is what I hear you saying. And one of the things that I would love to see as an agency administrator, when I was Administrator for the Agricultural Research Service, continuing to look at our demographics, and the higher you get to the executive and what we call the GS scale in government, the numbers decreased. So let me say we see a lot of diversity at

the certain GS level, and then the higher you go, we see those numbers reduced.

And so, for me as an Administrator or now as Under Secretary, to me, the success is when I look across my staff and I look at my staff at all levels and they look like America. And so that is why I think it is so important, Congresswoman, that you get to see people that look like me, that get to see people who look like the Administrator, and that get to see people who look like America in leadership roles so that we can encourage them to continue. So, whether they—I just talked to a group of fifth graders this Monday in Denver. And let's just say talking to a whole room of fifth graders is a bit challenging, but Congresswoman Hayes has been in this position before, I am sure. Keeping their attention was a full-time job. But I hope that those kids walked—there were a group of Brown, lovely, lovely kids of color. And I hope that they walked away with an idea that they can be me because I can't be here forever. And I am hoping that if I convinced even one or two of those children to continue their education in agriculture and at least 75 percent of them to continue to go on to college and to grad school, then I would have been successful. But I will see it and I will know it when I see it in the numbers that we experience in our agencies across the country.

Ms. BROWN. Thank you so much.

Mr. Ducheneaux, in your testimony you mentioned about the work of the equity officer, equity analysis analyst, and the Justice40 initiative in combating discrimination within the agriculture sector. What metrics are you using to assess the success of these positions and efforts?

Mr. DUCHENEAUX. Thank you very much for the question. As a former Executive Director of an organization that participated in some of these agreements, I can tell you that it is rigorously and frequently that the USDA asks for information about the success and outcomes for our cooperators, oftentimes, more than their capacity will allow. It is why capacity development for our cooperators is so important.

But if you want to look at an example of how that can happen and how Federal investment in knowing better information, you need look no further than the National Agricultural Statistics Service. In 2002, they made a concerted effort to get out there and do a better accounting of Indian Country. The Navajo Nation went from one producer magically to tens of thousands of producers because they made the effort and they got out there and tracked it. So that Federal investment leveraged into better information, just like the information with the cooperators will. Many of our cooperators who have been able to develop that additional capacity also have stepped now into tracking outcomes and program participation on behalf of the Federal Government, for instance, tracking loan participation rates, loan success rates, conservation program success rates, and even import investment leveraging of capital.

Ms. BROWN. Well, thank you. I see, Madam Chairwoman, that my time has expired. So, with that, I want to thank the witnesses for their testimony before us today, and I will yield back.

The CHAIRWOMAN. Thank you, Ms. Brown. I will just say that you are speaking my language when you are talking about ag pro-

grams in schools. I would like to see more of those programs offered to students much sooner, much younger because we can capture their creativity and their innovation. And, like you said, they will begin to believe that they can, too, be engaged in agriculture and see themselves in these roles.

I now recognize the gentlelady from Florida, Mrs. Cammack. You have 5 minutes. Please unmute and begin your questioning.

Mrs. CAMMACK. All right. Well, thank you, Chairwoman Hayes, Ranking Member Bacon. And I will just jump right into it. Thank you to you both for appearing before the Committee today.

Administrator Ducheneaux, thank you for highlighting the work of the Farm Service Agency. Now, as you continue to explore ways to serve producers, how is the Department thinking about ways to improve technology needed to ease the burdens related to reporting and program enrollments, *et cetera*? That has been a common comment and complaint that we have heard amongst our FSA folks.

Mr. DUCHENEAUX. We get that same complaint as we go out and talk to producers in the countryside and our county office staff as well. Every program that we roll out, we have to do a Paperwork Reduction Act and a time burden analysis, and we are working to bring those down and working to streamline our programs. And we are really taking the lessons learned, as I mentioned previously, from the Emergency Relief Program where producers receive that pre-populated form and are able to sign and verify, commit to the 2 years of linkage that we are required in the statute, and receive the benefits that they are entitled to.

In the Emergency Livestock Relief Program, we actually used information that we had using the Livestock Forage Disaster Program and acreage reports and simply made a payment to producers that were eligible for that program with no paper transactions at all. And the challenge is to do so in a way that maintains program integrity because it is important to fulfill our role as stewards of the taxpayer dollar as we deliver these programs and ensure that they get where Congress intended them to go as we do this.

The Livestock Forage Program is one that we are looking specifically at, how can we automate that so that when the Drought Monitor triggers that disaster assistance, we should be able to automatically make the payment like we did with the Emergency Livestock Relief Program. So, we are trying to find that balance between streamlining but maintain program integrity because we want to make sure that we are being good stewards of the money.

Mrs. CAMMACK. Right. Thank you for that. And while we are on the subject of FSA, Administrator, the county committees, as you know, are a direct link between the farm community and the Department of Agriculture. And my colleague, Ranking Member Thompson, brought up earlier USDA's Equity Commission recently recommended that USDA seriously consider termination of the FSA county committee system to, quote, "design a more equitable alternative for all farmers." Now, I am concerned by the many claims and reporting that county committees are responsible for minority farmers not being able to access loans. That is serious. But it is also my understanding that the county committee does not have any say in the loan approval process. Is that the case? Yes?

Mr. DUCHENEAUX. That is the case.

Mrs. CAMMACK. Okay. So, they have no say in the approval process. So, as Administrator, then what are you doing to ensure that the Equity Commission members have an educated understanding about what the county committees can and cannot do?

Mr. DUCHENEAUX. That is a very good question.

Mrs. CAMMACK. Thank you.

Mr. DUCHENEAUX. We have participated at every opportunity with the members of the Equity Commission. But we have to understand that we are working to overcome decades and generations of when that was actually the case, when county committee members did weigh in on loan applications. Those are very recent changes in the grand spectrum of time of this, but the county committees are integral in the delivery of the billions of dollars of programs that we administer annually. They are responsible for making determinations about producer eligibility and making assessments about prices in that particular region.

Mrs. CAMMACK. Right

Mr. DUCHENEAUX. So, it is important that they are truly representative of those that are producing.

Mrs. CAMMACK. Well, and I am running short on time, so I am sorry to cut you off a little bit there. When was the change made?

Mr. DUCHENEAUX. I don't know that off the top of my head, but I will get it to you. It is sometime in the last few decades.

[The information referred to is located on p. 1619.]

Mrs. CAMMACK. Okay. So, I mean, decades. Okay. There has clearly been time to educate these committee members about the fact that they are not the final say or a part of the approval process, so it kind of seems to me that USDA, with this recommendation, is throwing the baby out with the bath water. And I got to tell you, I am speaking with producers all up and down my State of Florida, and we have just been battered by the worst hurricane in Florida's history. As you know, Florida is home to over 300 specialty crops, and it is the number two economic driver of our state. So, we have real serious challenges. And our FSA committees, those county committees are a key part to the Agriculture Committee as a whole, but they will be a major component to recovery.

So, I think the last thing that they want to hear is that the FSA or USDA in the days and weeks after this disaster is possibly going to do a wholesale reconfiguration of how these agencies they have relied on will work moving forward based on—and I am just going to call a spade a spade here. It seems like virtue signaling and some woke ideology. But I would like to continue this conversation. I know my time has expired, so in the interest of doing what is best for the these county committees and our producers around the country, I will follow up with you later, but thank you.

And, Madam Chairwoman, I yield back.

Mr. DUCHENEAUX. I would appreciate the follow-up. Thank you.

The CHAIRWOMAN. Thank you, Mrs. Cammack.

I now recognize myself for 5 minutes.

Before I begin my questions, I first want to say to Administrator Ducheneaux, you spoke to my heart when you said people with full bellies contribute to our communities because that is really where I see my role in this work. Yesterday, as many of you know, the White House convened a conference on hunger, and farmers will be

critical to any plan that we have moving forward to address hunger and food security issues in this country. So, I think that this hearing is both timely and relevant to the work that has to be done.

I have said since the day I came to Washington, hungry kids don't learn. I know that, and that can extend to any other community on any other topic. But we must be invested in feeding people in this country. And the idea that we have so many farmers and ranchers locally who are not being utilized is something that we have to really look at differently.

Dr. Jacobs-Young, in my district, only nine percent of farmers are younger than 35, and $\frac{1}{3}$ are older than 65, which aligns closely to the long-term trends. So, I know how critical it is, as I said before, to get more younger, beginning farmers involved in agriculture and to share the importance of programs like Beginning Farmers and Ranchers Development Program. What changes to the 2018 Farm Bill have improved access, and has NIFA received more applications as a result? If not, what should we be doing differently as we move forward?

Dr. JACOBS-YOUNG. Thank you for the question, Chairwoman Hayes. So, the number of applications received by the Beginning Farmers and Ranchers Development Program is one that I will have to provide following this hearing today.

I do want to talk a little bit about in your home state, some of the work that has been happening with the Beginning Farmers and Ranchers Development Program, working with the University of Connecticut Extension Service, and they are working with a program called Solid Ground (Solid Ground, a Program for New Farms and Farmers). And I love that—well, I don't know if we want it so solid. We need it a little bit aerated, soft, and tilled at some points. But Solid Ground program where they are working with the beginning farmers to do expert training, they are setting up peer networks, that they are doing things like technology, awareness, building robots, which helps them after they harvest their production to be able to reduce the amount of loss that is experienced, and so really being able to introduce them to some of the technology. And then importantly as well, they are talking about farmer wellness. And this is something I had a chance to talk to the small farmers about last Monday because if we don't take care of ourselves, if we don't look at our diet and our nutrition and we are not healthy, we are not going to be at our best either. And so, this program also looks at farmer wellness. And so, I think that those are some very important facets.

What I will say is we just want to thank you all for the support that we have received for this program because it has been so helpful, and it has engaged so many across the country to really do this important work of making sure that those who venture into farming can be successful. And so that is something that I just want to thank you all for, for your support with that, and we will follow up with those numbers for the record.

The CHAIRWOMAN. Thank you for that. And you can take me down a rabbit hole on this one because I have seen at many of our VOAG training programs where young people who are interested in technology didn't realize that drone research could contribute to agriculture, and it was a way that they can have gainful employment

in the field in just so many different areas, so very excited to hear you shout out my state.

In my last minute, I have a question for you, Mr. Ducheneaux. As of 2017, only five percent of farmers in the U.S. were Black, Latino, Hispanic, Asian, Native or Pacific Islander, or identified with multiple races. In my district, it is only about 2 percent. Without reaching these communities who make up more than 40 percent of our country, we are going to really struggle to address the need for more farmers. Given the urgency of this issue, do the Farm Service Agency and the 2501 Program work together to support farmers of color and farmers with prior military service?

Mr. DUCHENEAUX. Thank you, ma'am. All things being equal over the span of time, we wouldn't even be sitting here talking about equity. But the fact of the matter is that nearly 40 percent of this country is minority, less than 12 percent, actually 11 point something percent are minority farmers. So, there is tremendous inequity just in who is farming. But, if you take a closer look at the numbers, there is a disparity of about two percent in farm program payments between farmers that aren't farmers of color and farmers that are. We have to reach those farmers and at least bring equity to the proportion of program participation and the proportion of existing farmers while we work to increase opportunity for producers so that our farming population can better represent our national population.

The CHAIRWOMAN. Thank you, sir. We all benefit when we have honest conversations and commit to finding solutions to these problems. And I think that is where we have to go from here.

Seeing no other Members on the platform or in the Committee room, I will now—oh, I probably should have yielded back for my question. I don't know. Usually, I am over there.

I want to thank our witnesses for taking the time to join us today. We really appreciate your time and expertise. I will ask that you—there are so many other things that I would have loved to hear about. We had some questions from Mr. Carbajal, Mr. DesJarlais, Mr. Cloud, Mrs. Cammack, and even myself that I would love to follow up on. This really requires a much more extensive conversation because I truly believe that we have the ability and the capacity to close these gaps and do better moving forward. Your insights on the 2018 Farm Bill provisions related to USDA Department operations and outreach programs and the impact of COVID-19 on the Department and its programs and everything else mentioned here today will inform us as we begin the process of drafting the 2023 Farm Bill.

We have really just seen how incredibly important our agricultural sector is not only to our country but to the global economy. We have seen that amplified over the last few years, and I think more people are hyperaware of the role that local farmers and ranchers play. And as legislators, I think we are hyperaware of what we have to do to support this industry.

Working together, we can ensure that the structure and operations of the Department serves farms and ranches of all sizes. That is very important to me because in my State of Connecticut I deal with many smaller farmers for who one bad season, one missed crop, one bad market, and they are out of business for good.

So, we really have to make sure that our programs reach farmers of all sizes from the largest that we have in our country to the smallest family farms that that we serve.

So, I thank you again, Under Secretary Jacobs-Young and Administrator Ducheneaux, for your expertise in these areas and your commitment to the work that you do. I think that your presence here really speaks volumes just about the subject of this hearing, that we are trying as a country and as an Administration to expand our efforts to reach into other communities, to close the gaps that we know exist. So, it is very important. It is very important that you are representing the Department and that you bring such unique and varied experiences, and that your work will help guide it and inform us moving forward.

I guess that serves as my closing statement. Our Ranking Member isn't here but our—I am sorry, my Ranking Member isn't here, but the Ranking Member of the full Committee, Mr. Thompson, is here, so I welcome you to give closing remarks if you would like.

Mr. THOMPSON. Well, no, just thank you so much for your continued service and your leadership. This was a good hearing, good information. One of the things I would like to follow up with you, one, this entire issue is I would love to have the data from the root cause analysis the USDA must have done in order to come to the conclusion for the actions that they have taken, really using the data to look at what are the variables of why some succeed and some don't succeed, even in just having access. Is it some systemic race issue from decades ago? How much of a role does the size of the farm operation, the access to capital? There are just so many things out there. And I am sure, given the amount of money and emphasis that USDA has taken, there has to be a really good root cause analysis that has been done other than just looking at demographics of the industry. And so that would be great. Thank you for your continued leadership.

And, Madam Chairwoman, thank you for the hearing.

The CHAIRWOMAN. Thank you, sir. Thank you for joining us. You are always such a tremendous contributor to all of the hearings on this Committee.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any of the questions posed by a Member.

This hearing of the Subcommittee on Nutrition, Oversight, and Department Operations is now adjourned.

[Whereupon, at 10:51 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUPPLEMENTARY MATERIAL SUBMITTED BY ZACH DUCHENEAX, ADMINISTRATOR,
FARM SERVICE AGENCY, U.S. DEPARTMENT OF AGRICULTURE

Insert 1

Mr. DESJARLAIS. . . .

Administrator and Under Secretary, I just was curious whether you had a strategy to deal with the crisis at the southern border in terms of the influx of several million illegal immigrants, many who will be applying for SNAP benefits under either asylum or because they are under 18.

* * * * *

Mr. DUCHENEAX. Sir, I do not have any of those numbers, but I do have faith in the American farmers and ranchers to be able to stand up to the challenge and feed them.

Mr. DESJARLAIS. Okay. Who could get that number for me? Because we have gone through this a few times in this Subcommittee. And you agree that it is going to put a strain on the program, correct?

Mr. DUCHENEAX. Sir, I don't have the numbers, and that is a little bit outside of the bailiwick of the Farm Service Agency, but I can work with our friends at the Food and Nutrition Service to ensure that you get those numbers.

Although this matter is not within the purview of FSA, FSA conferred with USDA's Food and Nutrition Service (FNS) on this question and provides in response the latest data relevant and available from FNS, which is from Fiscal Year 2019. A total of 37.2 million individuals received Supplemental Nutrition Assistance Program (SNAP) benefits on average each month in FY 2019. The citizenship breakdown of these individuals is as follows:

- 33.9 million (91.1%) are U.S.-born citizens;
- 1.9 million (5.0%) are naturalized U.S. citizens;
- 295,000 (0.8%) are refugees, asylees, or individuals given a stay of deportation; and
- 1.1 million (3.1%) are other noncitizens—*e.g.*, a legal permanent resident with 40 quarters of work (which is typically 10 years of work history), military service, 5 years legal U.S. residency, disability, or under age 18.
- Included in the above groups are 2.5 million U.S. citizen children *who* are living with non-citizen adults (adults may or may not be SNAP participants).

Insert 2

Mrs. CAMMACK. Okay. So, they have no say in the approval process. So, as Administrator, then what are you doing to ensure that the Equity Commission members have an educated understanding about what the county committees can and cannot do?

* * * * *

Mrs. CAMMACK. . . . When was the change made?

Mr. DUCHENEAX. I don't know that off the top of my head, but I will get it to you. It is sometime in the last few decades.

I appreciate your question regarding FSA County Committee involvement in reviewing farm loan program applications. While since removed, Sec. 332 of the Consolidated Farm and Rural Development Act (Con Act) established county committees at the former Farmers Home Administration (FmHA) and Sec. 333(2) established the requirement that those FmHA committees certify farm loan eligibility in writing. In October of 1994, Public Law 103-354 subsequently removed sections 332 and 333(2), which in turn removed farm loan eligibility certification authorities from the county committees.

Several notices have since clarified the role of county committees in this process, particularly as the FmHA and the Agricultural Stabilization and Conservation Services (ASCS) merged into the current Farm Service Agency (FSA). Notably:

- FC-5 dated 11/9/95 required that former ASCS State Executive Directors (SEDs) delegate all authorities held by FmHA County Committee to "Ag Credit Team" members with loan approval authority. (Note: this change took place after a portion of the former FmHA merged with former ASCS to form FSA, and the former FmHA teams with loan approval authority—known as Ag Credit Teams—became the loan approval officials in FSA).
- FC-158 dated 12/24/97 eliminated requirement of former FmHA Committees to determine eligibility for *guaranteed loan* requests.

- FC-205 dated 8/5/98 replaced FC-158 and eliminated the requirement for former FmHA Committees to determine eligibility for *both direct and guaranteed loan* requests.
- FLP-37 dated 3/11/99 replaced FC-205 and eliminated former FmHA Committees from borrower training as well as direct and guaranteed loan eligibility based on Civil Rights Action team recommendation.

Since these changes, no FSA County Committees or their historic predecessors have had authorities to determine eligibility for farm loan programs or approve farm loans.

SUBMITTED QUESTIONS

Response from Hon. Chavonda Jacobs-Young, Ph.D., Under Secretary for Research, Education, and Economics and Chief Scientist, U.S. Department of Agriculture

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Question 1. The long-term national trend shows that American producers and farmers are getting older on average. As the agriculture industry continues to deal with rising temperatures and rising costs, it is important we continue to elevate agriculture as a viable and sustainable career for the next generation.

I'm proud to see the Agricultural Youth Organization Coordinator is supporting young adults who are invested in the agriculture industry. How early does the coordinator suggest engaging with K-12 children and how can these children be supported through a pipeline of programs through adulthood?

Answer. The 2018 Farm Bill established the position of Agricultural Youth Organization Coordinator to promote the role of youth-serving organizations and school-based agricultural education. The Office of Partnerships and Public Engagement's (OPPE) team supports the Youth Coordinator in building youth awareness of the reach and importance of agriculture across a diversity of fields and disciplines.

The first few years of life lay the foundation for resilient, safe, healthy, and economically secure children. Access to high-quality child-care and early learning opportunities strengthens this foundation and directly supports the success and well-being of rural families. USDA Rural Development encourages continued investment in high-quality, affordable child-care and early learning opportunities as a critical component of building and strengthening economic prosperity in rural communities.

USDA's child nutrition programs help ensure that children receive nutritious meals and snacks that promote their health and educational readiness. The USDA Farm to School Program joins schools, farms, and community organizations across the country to positively impact kids from pre-K through high school and plays an important role in getting healthy, locally grown foods onto children's trays. This fiscal year, USDA will award Farm to School Grants through a competitive process that provides bonus points to projects operated by and serving communities that are underserved, marginalized, or adversely affected by poverty and inequality. We know from research that if children get that solid start, they will pay more attention in school, they will be less likely to arrive late to school, and they will be less likely to not go to school at all. As a result, they are more likely to perform better and, in fact, over the length of their school years, they are more likely to graduate from high school.

From grade school to graduate school, the USDA National Institute of Food and Agriculture funded programs to promote education in the food and agricultural sciences. From Learning to Leading the Next Generation of Diverse Food and Agriculture Professionals Program (NEXTGEN) will enable 1890 institutions, 1994 institutions, Alaska Native-serving institutions and Native Hawaiian-serving institutions, Hispanic-serving institutions and insular area institutions of higher education located in the U.S. territories, to build and sustain the next generation of the food, agriculture, natural resources, and human sciences workforce including the future USDA workforce primarily through providing student scholarship support, meaningful paid internships, fellowships, and job opportunity matching, and also facilitating opportunities to learn the processes and pathways leading to training and employment in the Federal sector.

USDA offers Federal internship and employment opportunities for current students, recent graduates, recent veterans, and those with advanced degrees. We also offer internships for students with disabilities, and partner with third party internship programs including: The Thurgood Marshall College Fund (TMCFF); the Hispanic Association of Colleges and Universities (HACU); The American Indian High-

er Education Consortium (AIHEC); The High School Equivalency Program (HEP); and The College Assistance Migrant Program (CAMP). USDA also partners with several student organizations to provide a range of programs to assist youth to meet and exceed their potential and unlock countless career paths in agriculture.

Question 1a. Is the coordinator ensuring that children from underserved communities are also included in agriculture education?

Answer. Within the Office of Partnerships and Public Engagement's the Youth Coordinator position is closely aligned with our education initiatives and programs serving the 1890 historically Black land-grant colleges and universities, 1994 Tribal land-grant colleges and universities, and Hispanic-serving institutions. The Youth Coordinator will work closely with the USDA Liaisons that advise and assist communities, students, faculty, universities and colleges, farmers, ranchers, foresters, and others on USDA programs and initiatives and to build a pipeline of students studying agriculture and entering USDA. USDA liaisons develop and maintain partnerships with key USDA stakeholders to enhance outreach between USDA stakeholders and USDA agencies, mission areas, and staff offices. This alignment fosters OPPE's coordination and collaboration efforts across USDA to better prepare underserved students and ag professionals for success. This supports USDA's historic commitment to root out generations of systemic racism; center equity in decision-making and policymaking; have a diverse, modern, and inclusive workforce; lower barriers to access; and ensure USDA programming is inclusive of all employees and all customers.

Response from Zach Ducheneaux, Administrator, Farm Service Agency, U.S. Department of Agriculture

Question Submitted by Hon. Salud O. Carbajal, a Representative in Congress from California

Question. Administrator Ducheneaux, when conducting outreach to individuals, whether farmers, ranchers, or someone else seeking assistance from USDA, do you have a program to employ someone like *promotoras* that serve Latino communities? I don't know if you are familiar with that concept. *Promotores de salud*, also known as *promotoras*, is the Spanish term for "community health workers". *Promotores* are trusted members of their community who help individuals navigate health care or teach the community about resources, like where to get vaccinated and why. Would something like this be beneficial to help Latino and other minority communities access USDA programs and re-build trust?

Answer. Currently, the Farm Service Agency has a team headquartered in Washington, D.C., as well as State Outreach Coordinators and County Office Coordinators, who work to provide outreach, education and technical assistance. Each staff member across FSA is also responsible for providing these resources as well. FSA has a network of over 2,000 Service Centers around the country to work closely within the communities they serve. In addition, the USDA has Beginning Farmer and Rancher Coordinators at the national and state levels who specifically focus on helping new farmers gain access to USDA's valuable resources. As USDA works with new and beginning farmers, these coordinators also focus on making sure their services are available in multiple languages to make sure all potential customers can understand and ultimately take advantage of the resources that USDA has to offer for the next generation of farmers and ranchers. USDA also has an array of cooperative agreements to support technical service providers, who provide instrumental hands-on technical assistance in communities where they have built strong relationships and trust at the local level. While USDA does not have *promotoras*, we will continue to look for ways to enhance our efforts and work within USDA and through our cooperative agreement partners to ensure we have individuals in place to provide equitable service. I appreciate your question and also welcome the opportunity for continued discussion and collaboration to make sure the farmers, ranchers, and farmworkers you represent have the knowledge and resources they need to access USDA programs and services.