Testimony of Sam Godwin
Box Canyon Fruit
"Increasing Resiliency, Mitigating Risk: Examining the Research and Extension Needs of Producers"
House Agriculture Committee
Subcommittee on Biotechnology, Horticulture, and Research
June 12, 2019

Thank you Chairwoman Plaskett and Ranking Member Dunn for the opportunity to testify before the Subcommittee today on the research and extension needs of tree fruit producers when it comes to increasing resiliency and mitigating risk.

I am Sam Godwin. I operate a family organic farm of 300 acres with my wife and oldest daughter. I also partner with my brother on another 85-acre orchard that was our father's farm. I have been tied to the industry for as long as I can remember. Growing up in the center of an orchard has many rewards but the business-related issues that our industry is facing can be overwhelming at times. I am here today to share some of my experiences from the farm to underscore the importance of research and extension for our future. I spend much of my time working with others from within our industry to help ensure that our children experience the same opportunities in the future as farmers that we did.

As a farmer, you learn that there are many things that are outside of your control. You learn to trust the process and have faith in your plans or actions. The problem we face is straightforward – we grow products that are not increasing in value at the same rate as input costs.

As a labor-intensive specialty crop industry, we rely on improved technological breakthroughs to drive future competitive advantages with our commodities. Today we find ourselves caught in a business that requires significant investments in long-cycle improvements, with customers and consumers who want short-term benefits. When you add on the additional risk created by new unknown cultivars, changing weather patterns, and new pests, we end up in a very high stakes game that could drain your working capital in a single season.

The Pacific Northwest is home to family-owned orchards like mine that provide approximately 67 percent of the apples, 74 percent of the pears, and 73 percent of the sweet cherries grown in the United States. Roughly 30 percent of each commodity is exported each season. Together, these crops are valued at an average of $3 billion annually, and create tens of thousands of jobs in rural communities throughout our region.

There are a number of reasons why our growers are so successful in what they do. One is our arid climate, consisting of cool nights and hot days during the growing season. A second is the innovative and collaborative nature of our industry, and our recognition that investments in new ideas are essential to staying ahead of the constantly-evolving threats to our continued success.

Emerging or evolving threats come in many forms. For example, pests like the Brown Marmorated Stink Bug and the Spotted Wing Drosophila (SWD) that were previously not present in our region have now become established in some areas because changing weather patterns have prevented larvae from being killed by sustained cold temperatures over the winter. Changing weather patterns have also contributed to our growers now needing to fight three or four generations of codling moth per season, instead of the two generations they faced twenty years ago.

It should be noted that SWD is considered a quarantine pest for cherries, and codling moth for apples, in some key export markets for these fruits – meaning that a finding of these pests in a shipment of fruit can jeopardize future access to these important markets.

Fire blight, which is a debilitating bacterium that infects pear and apple trees in years when the spring weather is warmer and wetter than normal, has become an increasingly challenging condition and economic vulnerability for growers. In 2018 alone, a sobering 88 percent of pear and 17 percent of apple acreage was impacted by fire blight to some degree, resulting in losses of an estimated $37 million.

Changes in seasonal weather patterns are also forcing growers to pursue more tools to prevent sunburn in the orchard, and the need to come up with inventive solutions to prevent heat-related storage disorders postharvest. In drought years, growers in some irrigation districts are facing water shortages just at the time that they need more water to protect the fruit from burning during the heat of summer.

Our growers have long recognized the need to invest in pursuing solutions to these ever-evolving challenges. In 1969, Washington state tree fruit growers voted to assess themselves on every box of apples, pears, and cherries commercially sold to establish and maintain the Washington Tree Fruit Research Commission (WTFRC). Last year alone, the WTFRC funded more than $4.5 million in research projects to address priorities of our growers. In 2013, we voted to impose an additional assessment on ourselves to fund a $32 million Tree Fruit Endowment at Washington State University (WSU). This endowment supports up to ten new research and extension positions, focusing on enhancing orchard and postharvest operations. This is the largest contribution to WSU in the university's history.

Ongoing projects funded by the WTFRC that deal with resiliency and mitigating risk include: maximizing the use of limited irrigation water to reduce stress on pear trees; modeling the effect of changing weather patterns on pests of concern; and improving soil health by looking at the effect of woodchip mulch, mowing, and cut grass that is blown into the tree strips. Dr. Whiting of WSU is also looking at the use of nanocrystals to reduce cold damage in apples and cherries. This is only a glimpse of the work tree fruit growers are supporting through the WTFRC.

However, these investments by industry only take us so far. Federal research programs like the Agricultural Research Service (ARS) and the Specialty Crop Research Initiative (SCRI) are critical to leveraging grower resources to address the multitude of challenges that our growers and packers are facing on a daily basis.

There are two ARS facilities in Washington state that conduct research on issues that are important to our growers: the Temperate Tree Fruit and Vegetable Research laboratory in Wapato, and the Physiology and Pathology of Tree Fruits Research laboratory in Wenatchee. Research conducted at these two laboratories have yielded many benefits for growers through the years, ranging from innovative methods for pest control to game changers in improving the postharvest storage of apples.

For years, ARS has been level funded while costs have increased, leaving research stations struggling to meet staff and infrastructure needs. We appreciate the increase that Congress provided to ARS salaries and expenses, as well as buildings and facilities, in fiscal year 2018 and 2019. We were especially pleased to see funding provided to create a new scientist position focusing on pear genetics and genomics, which will be housed in the ARS facility in Wenatchee.

This has been a high priority of the pear industry for more than a decade. While there are countless ways a scientist with these qualifications can provide benefits to the industry, the development of a dwarfing rootstock for pears is something growers have long sought. By making trees shorter, it reduces the need for workers to use ladders in the orchard – enhancing safety and reducing labor needs at a time when finding an adequate number of workers for activities ranging from pruning to picking is becoming increasingly difficult. Growers have invested substantial resources in pursuing this goal, and this scientist will play a key role in achieving this objective.

Unfortunately, in spite of these funds being provided more than a year ago, due to the glacial pace of ARS's hiring process, this position has yet to even be advertised. This is part of a much larger problem, as hundreds of vacant scientist and support positions – many due to retirements – are remaining open at ARS for years. These positions have been fully funded by Congress, and we would appreciate any effort the members of this Subcommittee can make to encourage ARS to eliminate this HR bottleneck and fill these much-needed positions.

In addition to the federal resources dedicated to agricultural research through ARS, the SCRI has also provided great benefits to the specialty crop industry since day one. During the first year of the SCRI program, a grant provided to a group led by Carnagie-Mellon was used to develop a machine vision system. That system is now a critical component of an automated robotic harvester that has been developed by a California company with support from the WTFRC, providing a new tool to help growers adapt to an increasingly scarce labor supply. This next season will be the first in which it will be in, albeit limited, commercial operation.

Another example of an SCRI success is the RosBREED program, which is delivering breeding tools to accelerate the commercialization of tree fruit varieties with enhanced disease resistance and superior consumer attributes – enhancing the resiliency of growers' operations by reducing production costs and increasing returns.

We would like to thank Congress, and in particular the House and Senate agriculture committees, for fully funding the SCRI in last year's Farm Bill. While we certainly recognize the challenges that citrus growers are facing with citrus greening, the decision to fund efforts to

combat that devastating condition separate from the overall SCRI program frees up much sought-after resources in this over-subscribed program for other important priorities.

Unfortunately, it was discovered several months ago that a drafting error in the Farm Bill removed the U.S. Secretary of Agriculture's authority to waive the 100 percent matching requirement for the SCRI. This made SCRI unique in agricultural research programs without the opportunity to waive this requirement, and changed the rules for those seeking grants this year in the middle of the application process – and the middle of their budget cycle. This has led to a number of valuable projects that made it through the first round being withdrawn from consideration due to the inability of the applicant to quickly come up with the 100 percent match. This includes several projects important to tree fruit growers such as myself.

We request that you work with your Senate counterparts to fix this drafting error without further delay so that these, as well as future, valuable projects are not lost.

There are other important programs within the research arena that benefit our industry, including the Technical Assistance for Specialty Crops Program that provides resources to address sanitary and phytosanitary barriers to trade. Our industry has utilized this program several times, most recently to develop pest lists for Myanmar to keep this market open for apples, pears, and cherries.

The IR-4 program, which supports research to facilitate the registration for crop protection tools for minor crops, is also valuable. Registrants often choose not to expend the resources to register a product for a specialty crop, where the market for that product is much smaller than for major commodities grown on more acres.

The Agriculture and Food Research Initiative and the Organic Research and Extension Initiative are two additional competitive grant programs that serve as a resource for addressing grower challenges.

Research means nothing without a focused effort to get the information discovered into the hands of growers. Federal formula funds provided to universities for research and extension activities through the Hatch Act and Smith-Lever Act have eroded over the years. This has created a void in this critical last mile of allowing agricultural research to be applied on a broad scale. We encourage you to reinvigorate federal investments into extension activities.

Agricultural research is like a three-legged stool – it fails to fully achieve its purpose without the investment and support of industry, the federal government, and the university/extension system. The success of this model is exemplified in Washington state, where ARS scientists work across the parking lot from WSU scientists, who both go to the Washington Tree Fruit Research Commission and other commodity organizations for funding of individual projects.

It is a challenging time to be a tree fruit grower. We are facing new trade barriers in key export markets. Labor, which is our largest input cost, is becoming exponentially more costly and difficult to find year-after-year. Pest and disease pressures certainly aren't getting any less challenging, while the rapid growth in specialty varieties of apples with different sets of

characteristics that respond differently to these pressures further complicate the scene. Our growers do not ask for direct subsidies. Investment in research is key to ensuring that we can continue to provide top-quality, American-grown apples, pears, and cherries to consumers both here in the U.S. and around the globe.

Once again, I would like to thank the Subcommittee for giving me the opportunity to testify before you today on the research needs of growers like myself when it comes to resiliency and mitigating risk. I am happy to answer any questions you may have.

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