STATEMENT OF THE
CALIFORNIA FARM BUREAU FEDERATION (CFBF)
Before the
U.S. HOUSE AGRICULTURE COMMITTEE

Presented by
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Thank you, Mr. Chairman, for the opportunity to testify before the full House Committee on Agriculture to discuss the role of farm policy for specialty crop producers, with an emphasis on technology and innovation. I am Paul Wenger, a third-generation California farmer, where my farm includes ground my grandfather purchased in 1910. Originally a dairy operation, we raised cattle for beef for over forty years, before converting to predominantly orchards, planted to almonds and walnuts.

For twenty years, I have served as an officer of the California Farm Bureau Federation (CFBF), the last eight of which I have led the organization as its president. I am here representing more than 28,000 agricultural members in 53 county Farm Bureaus with members who produce over 400 commodities in our incredibly diverse agricultural state.

Due to California's unique geography, microclimates, and water resources, we are the nation's largest agricultural production and exporting state growing more than a third of our nation's vegetables and two-thirds of our nation's fruits and nuts grow in California. Of those, our state grows more than 99% of the nation's almonds, artichokes, dates, dried plums, figs, garlic, kiwifruit, olives and olive oil, pistachios, raisins, table grapes, and walnuts.[1]

Considering that specialty crop programs currently receive 1% of total Farm Bill funding and 4% of non-nutrition title funding, it's vital that increased consideration is given to the most critical needs of specialty crops.[2] In my testimony I will share some history of California's specialty crop industry and how the Farm Bill might address current labor challenges.

I appreciate the opportunity to address this committee. I commend Chairman Conaway and the committee for taking time to review the interests of specialty crop growers in California.

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[1] https://www.cdfa.ca.gov/Statistics

[2] CRS Report R43632, Renée Johnson, Specialty Crop Provisions in the 2014 Farm Bill, Table 2 shows specialty crop spending levels as $773 million in mandatory and $302 million discretionary funding in each year from FY14-FY18. The Congressional Budget Office projected the total cost of the new Farm Bill to be $489 billion over 5 years, or $97.8 billion per fiscal year. This puts mandatory specialty crop spending at 0.79% of total farm bill funding. Mandatory plus discretionary spending for specialty crops puts the total at 1.1% of total. Since nutrition spending is 80% of total farm bill outlays, the total spent on all non-nutrition title farm programs is $19.56 billion per year. Of that total, mandatory specialty crop is 3.95% and mandatory plus discretionary spending is 5.5%. Numbers cited use the mandatory specialty crop figures.

FARM BUREAU AND THE FARM BILL

While this hearing's focus is on the federal government's role with respect to specialty crops and the need for continuous technology and innovation, it is important to reflect on how we got to where we are in the first place, and so I will begin by going back to the early days of farming in California and providing a brief history of the Farm Bureau organization.

In the mid to late-19th century, a census of California agriculture would have shown that the state was much like the rest of the nation at the time, consisting mainly of wheat and livestock. By 1890, poor soil conditions prompted farmers of that era to join together to improve farming conditions and tackle the many obstacles that stood in their way.[3]

As farmers embraced new technologies for that era, California production began to diversify into grapes, citrus, and other specialty crops, creating the foundation for the cornucopia of crops grown in California today. By the early 20th century, those who lived in my grandfather's generation led the nation in steam and then gas-operated tractors and were among the first in the nation to utilize electrification both for tools and pumping water.[4] They worked with academic institutions and the government to address and solve the problems they faced on the farm. This united coalition of farmers became known as the Farm Bureau, and CFBF is about to celebrate 99 years as a state organization.

Within two decades of the Farm Bureau's existence, the Great Depression hit and U.S. farm policy began taking shape as the government intervened in agricultural supply and price for that era's largest crops like corn, wheat, cotton, and rice, which eventually became known as "program crops" in what became known as the Farm Bill. Conservation efforts and crop insurance were also incorporated into the bill. In subsequent decades, each Farm Bill reauthorization would make tweaks to price and supply calculations for the program crops, while growers of other crops such as fruits and vegetables, were strictly subjected to the whims of the market with little to no government intervention, including access to adequate crop insurance products. These non-program crops came to be known as "specialty crops," which are now officially defined as fruits, vegetables, tree nuts, dried fruits, horticulture and nursery crops (including floriculture).[5]

As a statewide organization that represents both program and specialty crop producers, we have evolved with the changing needs of all farmers and ranchers. In the last few decades, there has been a marked shift in Farm Bureau's mission to identify solutions to the problems faced by farmers. Originally focused on a balance between research and policy, the primary concerns today, especially in California, are almost centrally squared on policy and regulation. At times, burdensome regulations overshadow the everyday problems of farming that can be overcome through technology and innovation.

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[3] "The Evolution of California Agriculture: 1850-2000," Olmstead and Rhode. *California Agriculture: Dimensions and Issues*, Jerry Siebert, editor, 2003. https://s.giannini.ucop.edu/uploads/giannini_public/4e/a8/4ea8b9cc-df88-4146-b1ae-e5467736e104/escholarship_uc_item_9145n8m1.pdf

[4] Olmstead and Rhode, p. 12-13.

[5] "What is a Specialty Crop?" USDA-AMS https://www.ams.usda.gov/services/grants/scbgp/specialty-crop

Despite the regulatory challenges, farmers are willing to embrace technology and implement new innovations to enhance and advance the profitability of their farms. Today's agriculture is built upon the many technological advances developed over the last 150 years.

California farmers and consumers alike have benefitted from the unique system of canals moving water from Northern California into the Central Valley or lifting it over the Tehachapi mountains into Los Angeles and the growing region of Palmdale in Los Angeles County. Innovation in our universities and scientific laboratories have continued to develop new crop protection tools that are focused on treating specific problems, as well as reaching major strides in biotechnology. Farmers have been quick to adapt to the utilization of broadband, GPS guidance, lasers and drones, to become the most cutting edge farmers on earth.

With the many great technological innovations of our day, our success is fragile. Producing specialty crops requires great expense and risk with no real safety net. As a nation, it should be in our interest to protect the specialty crop industry and allow it to thrive so that we do not lose out to competitors.

While specialty crop growers have been remarkably resilient when faced with inclement weather, hostile markets conditions, pests and diseases, labor shortages, or other obstacles to their success, access to effective risk management tools have gone largely unmet.

As crop insurance has broad and generally predictable application among the major farm commodities, there are unique issues within specialty crops that deserve the attention of Congress. For most specialty crops, viable crop insurance programs are still lacking. To encourage maximum producer participation, Congress should pursue risk management programs that meet the needs of every commodity, small and large, in the most efficient and cost effective manner possible.

We strongly support the Whole Farm Revenue Protection (WFRP) program, an insurance policy created as a pilot in the 2014 Farm Bill to build on the successes of the AGR and AGR-Lite policies, that has offered the first insurable product to growers of commodities that have never received support. As the WFRP remains as a pilot program, we will seek improvements to make it more accessible.

Aside from conservation programs like the Environmental Quality Incentives Program (EQIP), which are available to all commodities, it is inequitable that federal farm policy would focus on a narrow set of crops. The health and economic benefits of ensuring a vibrant domestic specialty crop sector became the impetus for the collective industry uniting to support a new program.

Specialty crop growers were unsuccessful in their bid to be included in the 2002 Farm Bill for assistance in maintaining domestic production, as global competitors didn't face the same burden and cost of regulations as did our domestically produced specialty crop growers. The resulting passage of the Specialty Crops Competitiveness Act of 2004 led to inclusion of a specialty crops title (known officially as the "Horticulture Title") in the 2008 Farm Bill, which became the first official acknowledgement of specialty crops in the Farm Bill.

The centerpiece of this almost decade-old title is the Specialty Crop Block Grant, a state administered program that partners with organizations on a cost-share basis to enhance the competitiveness of these agricultural products. California has benefitted tremendously from this program, with hundreds of grants awarded to address a large variety of industry needs. It has also

created new opportunities for specialty crop growers that didn't previously exist. These funds don't go directly to growers, but provide financial support to segments of the industry in need of solutions to perplexing problems.

Overall, we support a Farm Bill that provides a safety net to growers, protects the specialty crops programs, prioritizes working lands programs, and ensures scientific progress in research. We also support a unified bill that combines the nutrition title with the other Farm Bill titles.

We have been involved as a member of an American Farm Bureau Federation (AFBF) led committee of 16 states that developed vast resources on the Farm Bill for Farm Bureau members, policymakers, and the general public that are available at http://www.fb.org.

With regard to specialty crops, AFBF policy supports the inclusion of a specialty crops title in future farm bills, additional research into harvest and cultural practices, expanded disease and pest research programs, improved pest exclusion programs, and funding to promote market expansion of U.S.-produced specialty crops. AFBF policy also adopts as a principle for the next Farm Bill, expansion of the Fresh Fruit and Vegetable Program and maintaining adequate funding for the specialty crop industry with emphasis on fundamental research, marketing and promotions, and pest management programs.

BARRIERS TO SUCCESS & SOLUTIONS

California specialty crop growers have long led the way in adopting and embracing new technologies and innovation in order to remain competitive and profitable. Until laws and regulations on labor, immigration, taxes, the environment, food safety, crop protection and trade better reflect real-world realities of family farming, the best bet for future success growing specialty crops can be summed up by one word: innovation.

The most significant innovation that can be achieved on the farm is increased mechanization. The need arises as the pool of available workers dramatically declines. Equipment, robotics, and other tools can help offset the growing labor shortage. If we don't aggressively invest in the development of new technologies, the consequence will be to lose a large share of our nation's specialty crop production.

While it is outside the jurisdiction of this committee, we ask first and foremost that Congress move rapidly toward allowing a legal workforce in the United States to guarantee that future immigrants who desire to work in American agriculture be allowed entry. We strongly oppose a mandatory E-Verify on employers until a satisfactory immigration path for agriculture is realized. We also caution Members that fixes around the edges of H-2A won't alleviate the current labor shortage.

There has never been greater need for accelerated leaps of innovation for specialty crop production. In the past three decades, of all Farm Bill research funds, only 15% have been

directed to specialty crops.[6] To get the most bang for the buck, public-private partnerships in the Farm Bill should be emphasized that address mechanization.

The development and adoption of on-farm mechanization has a storied history. From tillage to planting to harvest, most operations conducted on the farm today are done by machine. For less fragile or perishable crops, like grains, nuts, or fiber crops like cotton, their harvest is completely accomplished by machine. Mechanized machinery for the harvest of a small set of specialty crops such as nuts, wine grapes, and processing tomatoes have been commercialized and are in widespread use. However, the farm operations for fleshy specialty crops (e.g. fresh fruits and vegetables), beyond tillage and fertilization are mostly done by people working in the field. Many vegetable crops (e.g. tomato, or celery) are transplanted, where people manually feed individual seedlings into a mechanism for placement in the soil, while the weeding and thinning of vegetable crops and the thinning of fruit crops is mostly done by hand.

Our land-grant university system was integral to the development of labor saving mechanical technologies. UC Davis' Department of Biological and Agricultural Engineering has a long history of innovation for the mechanization of various specialty crops, such as the development of the field harvester for processing tomatoes. It is important to note that the process from the initial vision to complete commercial acceptance and utilization took over two decades. The innovation traces back to the 1940s when a new type of tomato plant was developed. It produced fruit with a uniform ripening ability (so all fruit ripened at about the same time), the fruit detached easily from the plant, and it produced a flesh and skin that were resistant to the mechanical rigors of machine harvest. About a decade after the breeding work began, a new type of machine was developed that automatically harvested the new type of tomato.

By the end of the Bracero farm labor program in 1964 the UC team had successfully created both the machine as well as the tomato it could harvest. With the ensuing farm labor shortage caused by the termination of the Bracero program, the processing tomato industry successfully made the transformation from an entirely manual harvest in 1961 to 95% machine harvested fruit in 1968. The entire process required a dedicated effort spanning a period of 25 years. The initial labor savings due to the use of mechanized processing tomato harvest was about 50%. As technological enhancements were made to the machine, such as automatic color sorters to remove immature green tomatoes, and improved farming practices were made to better facilitate machine harvest, the labor savings increased to the point where we have achieved a 90% labor savings compared to hand harvest of processing tomatoes today.[7]

To advance the progress for mechanization of specialty crops, a significant investment in plant breeding and mechanical engineering is required. <u>According to the University of California, funding on the order of $10M to $20M per specialty crop is required to support the integrated multidisciplinary teams of biologists and engineers required to develop prototype smart machines and robotic systems needed to mechanize specialty crops and to simultaneously develop the next generation of machine harvestable specialty crop plants</u>.

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[6] Helena Bottemiller Evich, Politico, "The vegetable technology gap: Washington spends millions on crop research. Why doesn't more go toward the foods we're actually supposed to eat?" March 8, 2017. http://www.politico.com/agenda/story/2017/03/fruits-and-vegtables-technology-000337

[7] http://ucanr.edu/sites/Postharvest_Technology_Center_/files/231316.PDF

We believe it is important to address the need for mechanization in the next Farm Bill through a dedicated allocation within the Specialty Crop Research Initiative (SCRI), as well as funding through the Agriculture and Food Research Initiative (AFRI) that has previously assisted mechanization research by promoting and enabling collaboration between land-grant universities and top robotic engineering departments.

There are tremendous opportunities for public-private partnerships in advancing mechanization for additional specialty crops in the future. A great example to highlight is the olive industry's efforts. The California Olive Committee continues to be committed to developing a mechanical harvesting machine suitable for the olive industry, and has been dedicating resources to perform research, cost studies, and experimental testing of both new and existing technologies. Currently, olives are handpicked and due to this, cost as well as availability of adequate labor have been some of the greatest challenges for our olive growers.

Over the past several decades, the olive industry has allocated hundreds of thousands of dollars toward developing mechanical harvesting tools to assist the industry with labor-saving options. Currently, the California olive industry provides over $400 million into the California economy, according to a report commissioned by the California Olive Committee and conducted by Dennis H. Tootelian, Ph.D., Tootelian & Associates.[8] However, due to new California state laws creating further restrictions and mandates on labor, and an increase in California wages and workers' compensation rates, table olive growers are looking at all available tools to reduce costs. By lowering these costs, the California olive industry will be able to compete against other countries who are currently providing subsidies for their olive industries.

The American Olive Oil Producer Association, an SCRI participant, recently wrote House Appropriations with concerns that SCRI funds would be cut. Olive oil has already achieved mechanized harvesting, but improvements can be made in orchard installation, management, harvesting and milling. The industry continues to seek for advancements that can result in the highest quality crop with the best yields and highest rate of extraction of extra virgin olive oil. Technological advances and innovation are imperative to a nascent domestic industry that is competing with traditional "old world" producers.[9]

Similarly, California-based Grimmway Farms, the largest carrot grower in the world, is exploring a concept of robots planting in pots, moving the pots to the field, and then returning the pots to harvest, relieving the need for a large crew.[10]

Ongoing research and design of robotic strawberry and lettuce pickers are still years from being field ready, which has resulted in the production of these and other labor intensive crops being relocated to other countries.

The opportunity for increased mechanization of specialty crops will be driven largely by the availability of an adequate and affordable labor supply, as well as other cost-benefit

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[8] http://calolive.org

[9] http://aaopa.org

[10] http://www.growingproduce.com/vegetables/robots-container-production-and-the-future-of-vegetable-growing/ and http://grimmway.com

considerations, including the international competitiveness of the U.S. industry. Ongoing research and design of robotic strawberry and lettuce pickers are still years from being field ready, which has resulted in the production of these and other labor intensive crops being relocated to other countries.

Just as mechanization helped early California farmers to displace labor, more advances are needed to maintain existing production in light of a diminishing pool of available workers. These advances can only come through equipment, robotics, and other tools that will help offset the growing labor shortage. It will take time and additional funding to get to the point where robotics plant, thin, prune, pick and process every crop, but there are commodities raised in California that must achieve a greater reliance on mechanization or the consequence will be to lose our domestic production of those crops.

Dedicated funding for advancements in technology and mechanization would be widely supported in the Farm Bill, though we reiterate that this is not an immediate substitute and remedy for the need to enact immigration reform laws that would protect and promote domestic agriculture and ensure the competitiveness of specialty crops.

CONCLUSION

The bottom line for California agriculture is continual innovation in order to stay competitive. With an uncertain labor situation, additional production costs, and unpredictable weather, California agriculture continues to find ways to adapt to the challenges.

Research and new technologies will be key to helping our specialty crop producers compete, whether it’s in improved production which includes mechanization, or more effective and affordable pest and disease protection. CFBF encourages Congress to support research for new technologies in the next Farm Bill.

I’m reminded by Ronald Reagan's famous quote about government’s view of the economy: "If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidize it." Specialty crop producers are already taxed and regulated. Let's all hope we never get to the point where our specialty crop production stops moving.