S. HRG. 118–369

HORTICULTURE TITLE: HOW THE FARM BILL WORKS FOR SPECIALTY CORP PRODUCERS

HEARING

BEFORE THE

SUBCOMMITTEE ON
FOOD AND NUTRITION, SPECIALTY CROPS,
ORGANICS, AND RESEARCH

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY

UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

June 7, 2023

Printed for the use of the
Committee on Agriculture, Nutrition, and Forestry

Available on http://www.govinfo.gov/

U.S. GOVERNMENT PUBLISHING OFFICE
56–335 PDF WASHINGTON : 2024

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C O N T E N T S

Wednesday, June 7, 2023

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U.S. SENATE
Subcommittee on Food and Nutrition, Specialty Crops, Organics, and Research
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m., in room 328A, Russell Senate Office Building, Hon. John Fetterman, Chairman of the Subcommittee, presiding.

Present: Senators Fetterman [presiding], Stabenow, Brown, Klobuchar, Booker, Warnock, Braun, Boozman, Marshall and Tuberville.

Also Present: Senator Welch

STATEMENT OF HON. JOHN FETTERMAN, U.S. SENATOR FROM THE STATE OF PENNSYLVANIA

Senator FETTERMAN. Good morning. I call this hearing of the U.S. Senate Subcommittee on Food and Nutrition and Specialty Crops, Organics, and Research to order.

We need a farm bill that works for all of our farmers. That includes small farmers, and critically, farmers who grow crops like hemp, fruits, tree nuts, and vegetables. That is why we are holding this hearing today. The farm bill safety net programs have been vital for some producers, but as we consider this farm bill we must expand the support for specialty crops. This is an opportunity to decrease risk for our farmers, stabilize our food supply chain, increase accessibility to healthy fruits and vegetables, and support an important sector of this agriculture industry, and supporting specialty crop producers is crucial for my State, with a robust specialty crop industry.

Particularly, Pennsylvania is known for its booming mushroom industry, in fact, it's known as the mushroom of the capital world. More than 60 percent of mushrooms produced in the United States is grown right in Kennett Square in Pennsylvania. Woo-hoo.

[Laughter.]

Senator FETTERMAN. Mushroom farms are significant regional economic drivers. According to Penn State Extension, the industry employs nearly 9,500 people in the region and contributes an estimated $2.7 billion to our local economy. Currently mushroom producers are not covered under crop insurance. This exclusion could harm mushroom producers and the broader local economy. That is not just a mushroom problem. It is also not just a Pennsylvania

problem, specialty crops are drivers of local economies across the country. The bottom line is that we can strengthen local economies, supporting these small farms.

My colleagues and I have already been working ahead to support small farmers. I am proud to be a co-sponsor of Senator Brown's Local Farms and Food Act of 2023. This bill will invest in farmers by making it easier for them to grow their businesses, sell directly to their communities. This is a necessary investment in rural communities that will increase access to nutritious, locally grown crops. It will cut red tape and make it easier for farmers to bring their products to market. I am also excited to announce my bipartisan Protecting Mushroom Farmers Act. This will be directed at USDA to study crop insurance for mushroom production, to help these farmers. Finally, I look forward to working closely with my colleague, Senator Braun, to support farms impacted by the horticulture title.

I am now pleased to turn this over to Senator Braun.

STATEMENT OF HON. MIKE BRAUN, U.S. SENATOR FROM THE STATE OF INDIANA

Senator BRAUN. Thank you, Mr. Chairman. It is interesting here because we are talking about a small part of the farm bill, and the farm bill is at a record level in terms of spending. I am concerned about that larger picture of where we are at as a government in terms of how we are borrowing so much money, just routinely, year after year. Many things that we need to well here, this would be an example of it.

This is a small percentage of the farm bill, but as the Chairman has talked about, this is that leading edge of where you are coming up with new ideas for agriculture. You are also addressing sustainability. We have got panelists here today that will help us out with that discussion.

Indiana is a State where it is the second-biggest industry, and we are the largest State in the country on manufacturing per capita. Agriculture is right there behind it. We are known for a lot of specialty crops, including tomatoes for process experiment, peppermint, watermelons. I, back many years ago, started a turkey brooding and raising business that was right when they were coming from the range into confinement. That is how important agriculture is to our State.

Just like with many things, you have got to be careful that you keep it entrepreneurial, you keep a good business environment. A lot of times with any legislation comes regulation that sometimes works across purposes. I want to make sure that we are aware of that.

A couple of bills out there that we are sponsoring. The Plant Biostimulant Act. They have taken off in foreign markets. They are less known in the U.S. My bill would build on the USDA report from 2018 by codifying a definition of plant biostimulant and ensuring that these products have a clear pathway to market. Something new. We want to make sure it has got the proper amount of regulation. We do not want to stifle it along the way.

Industrial Hemp Act. That is from the time I spent here, a big industry across at least 18 to 20 other countries, mostly for the

fiber, not the oil or the seed stock in producing it. We need to get at that forefront, so we are a competitor in the world arena there. I have got a bill, along with Senator Tester, that I think is at the forefront of putting that proper mix of good context for the industry. Again, do not overregulate it.

American Food for American Schools Act, another bill out there.

I think, from this Committee, I am glad the Chairman is putting emphasis on small entities within agriculture, the things that are going to turn it around into being an industry maybe different from what it is today. This discussion right here today is where it starts. I am glad to be a part of it and am looking forward to hearing from our witnesses.

Senator FETTERMAN. Thank you, Senator, and I am excited to hear from the expert witnesses joining us today, and who will introduce themselves shortly.

We have Mr. Chris Alonzo, the President and Owner of Pietro Industries, Inc., and a third-generation mushroom farmer in Kennett Square.

Mr. Charles Wingard, the Vice President of Field Operations at Walter Rawl and Sons, Inc., based in Pelion, South Carolina.

Ms. Diana Kobus, the Executive Director for PCO Certified Organic.

Now I turn this back over to my colleague, Senator Braun.

Senator BRAUN. I have the pleasure of introducing Mr. Nick Carter from Indiana, a true entrepreneur. When we met earlier so many parallels. When I got started as an entrepreneur many, many years, you are doing it in an area I think that is so important. You are a farmer, entrepreneur, co-founder of Market Wagon, an online marketplace that connects food consumers directly with local farmers and artisans. Nick has co-founded or founded over half a dozen companies in technology and food sectors. He currently operates his own family farm called Mud Creek Farm. He is an active investor and advocate for food and agricultural businesses. From the day he got out of high school, he has been an entrepreneur and involved, and an amazing track record.

He is an active member of the Indiana Farm Bureau and serves on the organization's Diversified Agriculture Policy Advisory Group. He is passionate about using innovation to reconnect agri and culture. He is also the author of "More Than a Mile: What America Needs From Local Food." I look forward to hearing your thoughts.

Senator FETTERMAN. Thank you.

Mr. Alonzo, we will now start with your opening statement. You are now recognized for five minutes.

STATEMENT OF CHRIS ALONZO, OWNER/OPERATOR, PIETRO FARMS, KENNETT SQUARE, PA

Mr. ALONZO. Senators Fetterman and Braun and members of the Subcommittee, thank you for having me here today. My name is Chris Alonzo, and as you heard, I am a third-generation mushroom farmer from Kennett Square, Pennsylvania, and I have been growing mushrooms my whole life. I saw it with my father and followed in his footsteps.

While production in California, Oklahoma, Texas, Tennessee and other States are also strong with mushrooms, Pennsylvania produces two-thirds of all the mushrooms in the country. With this, we do this 365 days a year with agriculture. We employ over 10,000 people in mushrooms. However, we know that for every ag job there are five non-ag jobs. Really, it is over 50,000 people, and that is what contributes to the economy in Pennsylvania and to the country.

Our farm, Pietro Industries, Pietro means Peter in Italian, my grandfather's name, was founded in 1938. My grandfather was a founding member of the American Mushroom Institute, and so I am representing AMI today. In addition, I was on the board of the USDA-based Mushroom Council, so I come to you today humbly with a lot of experience talking about mushrooms, which I love.

Mushrooms are a uniquely nutritious, fresh, and functional food. It is a great source of protein and disease-fighting properties. Researchers have identified cancer-inhibiting compounds in the grocery store mushroom. They found that just adding a little bit of mushrooms into your diet helps increase the intake of these micronutrients, like vitamin D.

Mushrooms also have a great taste, great "umami" flavor, and they are healthy, they are hearty, they are filling. Whether you are a vegetarian or a meat-eater, they either make the main plate of the meal or they are a great addition to your meal. My son actually loves to go in, pick them off the beds, eat them straight whenever I give tours, and ask the other people on the tour to eat them fresh. Not everybody does.

Mushrooms are also uniquely sustainable. They reuse water and grow on a small footprint. Just one acre of land can grow a million pounds of mushrooms a year. That is this controlled environment that we can have within mushrooms. That is also what makes us different and unique than some other crops, why we are here, why we are specialty crops.

The mushroom compost, the food for the mushroom, is formulated using 30 different ag byproducts—corn, corn stove, hay, straw, poultry litter. We take all these byproducts from other farmers and make into our beneficial uses. We grow mushrooms and we also have the byproduct which is a great soil at the end. It is the food we eat, and this soil at the end, and taking these byproducts from other farmers, helps keep the watershed healthy with less runoff. Mushroom growers, therefore, not only produce mushrooms but a reusable, value-add soil amendment that sequesters carbon and regenerates soil.

All of these nutrition and mushroom compost discoveries have come from investment in research. Yet, the mushroom industry lacks critical resources required to stay competitive when it comes to operations. In an increasingly fast-paced agricultural sector, mushrooms need a few things. We need research on integrated pest management to mitigate mushroom-specific pests and pathogens. We need research on the beneficial uses of mushroom compost, which is not a fertilizer but actually sequesters carbon and regenerates our soil. We need research on harvesting mechanization for increased yield, quality, and employee retention. We also need research on the potential value to the industry of crop insurance.

These mushrooms are too perishable to import or export overseas. Fresh mushrooms are actually a national commodity that should be treasured. We need your help. Mushroom farmers are truly feeding America, and your support of research through the Farm Bill will strengthen this agricultural legacy for years to come.

Thank you.

[The prepared statement of Mr. Alonzo can be found on page 30 in the appendix.]

Senator FETTERMAN. Thank you. Now I acknowledge my colleague, Senator Boozman.

Senator BOOZMAN. Well, thank you, Mr. Chairman and Ranking Member Braun, for holding this hearing today and the great job that you have been doing with this Committee. This is such an important subject.

I want to take a second to introduce Dr. Worthington, and it is very much my pleasure to introduce her this morning. She is joining us from my home State of Arkansas. We are very, very proud of her and her work.

Dr. Worthington is an Associate Professor for Horticulture at the University of Arkansas. She holds a Ph.D. in crop science from North Carolina State University, and a master of science in horticulture and agronomy and international agriculture development from the University of California, Davis.

Earlier this year, Dr. Worthington was part of a team of 26 scientists from across the world that assembled the first complete sequence of the blackberry genome. This achievement will be a great help to fruit breeders striving to develop improved varieties that are more resistant to disease and tolerant of drought, as well as have greater nutrition and better taste.

Dr. Worthington's cutting-edge work is a testament to the importance of modern breeding tools to our specialty crop sector, in particular. We are grateful for the expertise she will share with us today. I am also grateful she brought us a sample of some of the work that she was doing, freshly picked, as she came up yesterday.

Thank you very much for being here. I thank all of the panel, and I love mushrooms, so I was glad to hear the mushroom story.

Thank you, Mr. Chairman.

Senator FETTERMAN. Mr. Carter, we are now recognizing you for five minutes.

STATEMENT OF NICHOLAS CARTER, OWNER, MUD CREEK FARM; CO-FOUNDER, MARKET WAGON, INDIANAPOLIS, IN

Mr. CARTER. Thank you Chairman Fetterman, Ranking Member Braun, and members of the Subcommittee. Good morning. Thank you for the opportunity to be here today.

My name is Nick Carter. I testify in front of you today as the owner of Mud Creek Farm, I am a farmer, co-founder of Market Wagon, and also as a member of Indiana Farm Bureau.

Mud Creek Farm is, by all measures, a small farm. On just 20 acres we have 400 laying hens, will finish about 20 head of lamb a year, and we do grow a couple of acres of specialty crops. That includes about an 800-square-foot greenhouse. Like I said, by all measures very small. All of our sales are direct to consumer. The

majority of it is through an on-farm retail stand, and the rest goes through Market Wagon.

While our farm is small, when 1,500 or more other small farms just like us come together in a marketplace like Market Wagon, then the real scope and impact of small farming comes into focus.

Market Wagon is a marketplace that is comprise of small, diversified farms and food purveyors just like ours, in 15 States. We delivered nearly a million orders to over 70,000 customers and making real impact for small family farms all across the Midwest and South. I am proud of that work.

The challenges that Mud Creek Farm and other farms like us face are many, but there are a few I wanted to highlight today. One is matching supply with demand. If we have extra crop as a small farmer, it is not at the scale that any institutional buyer could look at. Any supply glut is really ours to deal with. That means that we have to match the supply to the demand. We have to find a consumer for the crop as it is ready. To mitigate that risk, we diversify what we are growing and when we grow it—season extenders, high tunnels, things of that nature. We need, also, every possible market opportunity so that we can market the crop when it is available.

The second one to highlight is just management of capital. When you diversify the farm like we have—and when I say that we do both crops and livestock, and that is a key integration of those two things in a biome there—there become innumerable small implements like transplanters, mulch layers, manure spreaders, that each one of them could create tremendous efficiencies. The challenge is knowing where to deploy that capital and how to prevent over-leveraging so that one bad year does not make the farm insolvent.

Through Indiana Farm Bureau I have had the opportunity to advocate for specialty crop producers at the State level. A policy action group that I served on helps to craft policy that lowered the regulatory hurdles for small farms to sell their products to local consumers. Ultimately, that policy turned into a bill, and that bill was signed by Governor Eric Holcomb last year, and we are already seeing impact in our State, and I am proud of that work.

However, resources for specialty crop growers cannot just be at the Statehouse. The farm bill is a perfect opportunity to show support for these producers.

Senators Roger Marshall and Peter Welch recently introduced a bill that would allow new ways for small producers to sell products across State lines, the DIRECT Act. It is an important, long-overdue modernization of the FSIS code that gives diversified farms, just like ours, increased access to sell direct to consumers, which is very, very important to us. I would strongly encourage you to advance that bill this year.

Programs such as the LFPP and Farm to School are great, but these grant programs need to become less onerous to apply for and manage in order for them to be accessible to small farmers.

Schools are the largest institutions that are embedded in the very community where diversified farms exist and have Federal buying power. In Indiana, we passed legislation that would allows schools to buy from local FFA chapters. Congress should consider

ways to give more flexibility and incentives to local schools to purchase locally grown fruits and vegetables right from their own community.

I support a robust crop insurance program, but as implemented, the current crop insurance programs are not really feasible for diversified farms like ours. The requirement for yield history and cost justification just do not align with the realities of a small farm growing specialty crops. As I have already alluded to, insurance is just one form of risk mitigation. The diversification in production that we do at Mud Creek Farm, that is our greatest risk mitigation technique.

As the Committee considers risk mitigation, I would encourage you to think beyond the scope of just insurance. The scope of solutions needs to include programs that enable capital deployment to accomplish diversification. The EQIP grant program, for example, can be leveraged to accomplish not only conservation goals but also diversification of farm activities.

Capital resources that enable investments that diversify a farm's operations would help farms like ours to increase production without risk of loss.

Again, thank you for the opportunity today to represent our farm and farms like us, and I look forward to the discussion.

[The prepared statement of Mr. Carter can be found on page 31 in the appendix.]

Senator FETTERMAN. Thank you, Mr. Carter.

Mr. Wingard, you are now recognized for five minutes.

STATEMENT OF CHARLES A. WINGARD, VICE PRESIDENT, FIELD OPERATIONS, WALTER P. RAWL AND SONS, PELION, SC

Mr. WINGARD. Thank you, Chairman Fetterman, Ranking Member Braun, and members of the Subcommittee.

My name is Charles Wingard. I am Vice President of Field Operations at WP Rawl in Pelion, South Carolina. This is my family's fresh vegetable operation, and we specialize in southern leafy greens, green onions and leeks, leafy herbs such as cilantro and parsley, and sweet corn. We are based in South Carolina. We have a market footprint of about 30 States, and we have field operations in Florida, Pennsylvania, and Michigan. I am here speaking on behalf of myself and International Fresh Produce Association.

Thank you for your support of specialty crops title in the farm bill. Our industry represents 44 percent of total U.S. farm crop income. However, our support in the current farm bill is only $2.1 billion, or another way of putting it is 3.5 percent of the total crop expenditures in the farm bill. USDA says we should make half of our plate fruits and vegetables. The farm bill is woefully short in that.

This Committee and Subcommittee showed great leadership 15 years ago when this title was introduced. It was developed to support industry much more so than any direct payments to producers. This ensures that the American consumer is the ultimate beneficiary of good public policy, and to date, by nearly all accounts, this title has been very successful, due to Senator Stabenow and Senator Roberts' leadership in buying into this vision 15, 18 years ago.

That was a great step forward then, but there is more that needs to be done now. First, we oppose any attempt to change the definition of specialty crops as outlined in the Specialty Crop Competitiveness Act of 2004. This definition includes fruits, vegetables, tree nuts, dried fruit, and nursery crops. Maintaining this definition is essential for consistency and to ensure that the unique needs of specialty crops are addressed.

Second, as you well know, a large portion of the U.S. population is overweight and exhibit poor dietary habits. I encourage you to find ways to make fresh fruits and vegetables more available to SNAP recipients and to expand the fresh fruit and vegetable snack program offered to school children that need it the most.

Third, I encourage you to expand the Specialty Crop Block Grant Program to at least $100 million annually. This program has been very effective at delivering research funding to the areas that need it the most, by the people who know it the best.

The Specialty Crop Research Initiative is another very successful program for our industry. A great example is the Eastern Broccoli Research Project. It was led by Cornell University, and the goal was to develop a broccoli variety that was suitable to the Eastern U.S. climate. It was deemed necessary due to climate change in the Southwest U.S. and consumers' demands to buy fresh fruits and vegetables with less food miles. Both of these reasons are important to help mitigate climate change. Initial collaborators included researchers in Maine, New York, Georgia, South Carolina, Florida, Virginia, Tennessee, Oregon, along with the USDA and four seed companies and seven fresh vegetable operations. I am proud to say that I was one of the seven.

The investment is about $10 million, and today a new variety with great promise is being released for commercial producers to trial in their operations. This promises to be a huge return on investment for the U.S. taxpayer.

Currently, there are 26 Specialty Crop Research Initiatives underway at 14 land grant universities, another good example of good government by utilizing the existing infrastructure and supporting those researchers that know the issues well. For example, Michigan State is leading multi-State research in extension efforts to develop modern pollination decisionmaking tools for blueberry growers. Penn State is still working to slow the spread of the spotted lanternfly and to educate the public in that region about the detection of the lanternfly and looking for control measures and looking for natural predators. Back home, Clemson and N.C. State are developing tools to assist growers with identifying, preventing, and managing the guava root-knot nematode, a new invasive species to us.

Very few, if any, of these 26 initiatives would have begun without public support through the Specialty Crops Research Initiatives. These issues are simply too small to attract any private research funding.

On a personal note, I produce about 700 acres of green onions on sandy soils, and there is only one herbicide labeled for use at planting, and it is being deregistered as we speak. My operation has invested in fixed assets to increase production while losing the only tool for preemergent weed control that we have. I know that there

are options that appear to be viable without compromising consumer safety, but none are labeled. Green onion production today is dominated by Mexican suppliers against whom we have a tremendous freight advantage on the East Coast.

However, if this ongoing dispute between the EPA and the herbicide manufacturer continues, then more of our Nation's green onion supply will be pushed offshore. This is an example of how we need Title 10 to have the tools to be able to expedite research and decisions. In other words, we need to cut through the red tape.

In closing, I want to thank you for the opportunity to share my thoughts and these recommendations that are crucial to the growth, sustainability, and competitiveness of the specialty crop industry and of my operation. I ask that you consider these priorities and allocate the necessary resources to support the diverse needs of our sector so that U.S. growers can prosper and share that health and prosperity with American consumers and the economy.

Thank you.

[The prepared statement of Mr. Wingard can be found on page 35 in the appendix.]

Senator FETTERMAN. Thank you, Mr. Wingard.

Dr. Worthington, you are now recognized for five minutes.

STATEMENT OF MARGARET LEIGH WORTHINGTON, Ph.D., ASSOCIATE PROFESSOR, HORTICULTURE, UNIVERSITY OF ARKANSAS SYSTEM DIVISION OF AGRICULTURE, FAYETTEVILLE, AR

Dr. WORTHINGTON. Thank you. Good morning, Chairman Fetterman, Ranking Member Braun, Ranking Member Boozman, and members of the Subcommittee.

I am Dr. Margaret Worthington. I am an Associate Professor of Horticulture and Director of the Fruit Breeding Program at the University of Arkansas System Division of Agriculture. Today I am speaking on behalf of the American Seed Trade Association.

The U.S. has a long history and tradition of entrepreneurship, founded on successful systems of technology transfer from the public sector to the private sector. Public-private partnerships are essential in deploying the strength of both sectors to develop better-improved varieties and bring them to the marketplace. This is especially true for low-acreage, high-value specialty crops.

Universities and companies are both using gene editing tools in research projects across plant species for a range of needed applications benefiting farmers, consumers, and the environment. These include disease resistance, drought tolerance, nutritional benefits, better taste, and food safety. Importantly, this research includes critical application in small acreage, high-value specialty crops. These crops face unique challenges, and in the past they have not been able to take advantage and benefit from modern breeding tools due to high costs and associated regulatory burdens.

Many countries have recently put forth policies that exempt or exclude products produced through gene editing from additional regulations, with clear and efficient implementation of these policies. However, differences in key elements of these policies means that the overall utility for plant breeding innovation varies greatly across the world. For example, EPA's recent final rule on plant-in-

corporated protectants, which was published just less than two weeks ago, is causing a great deal of concern in the plant breeding community.

EPA's updated policy is intended to address new and evolving breeding methods like gene editing. The goal is to establish new "derived from sexually compatible plant"-based exemptions for certain plant incorporated protectants that are introduced using tools like gene editing and result in plant characteristics that have already been created using conventional breeding. However, contrary to the EPA's approach to similar products developed using conventional breeding, the rule adds bureaucratic layers of red tape for products developed using gene editing. This is true even though the agency views those products as having no additional safety risks compared to those used with conventional breeding.

At the domestic level, the EPA rule runs counter to interagency alignment under the U.S.-coordinated framework. The rule is at odds with regulatory streamlining enabled and envisioned under USDA's recent revisions to Part 340 regulations. Internationally, the rule is out of step with a growing list of international regulatory authorities that have used scienced-based rationale to streamline their policies and support commercialization of innovative products. Instead of being a leader in innovation, the U.S. is now at risk of losing out. Our farmers could lag behind in access to latest improved varieties compared to their counterparts in the rest of the world.

These added and unnecessary regulatory burdens will increase the cost and time of getting new, improved varieties into the hands of our farmers. Especially I want to highlight many public sector breeders and small and medium-sized enterprises, and especially those working in most small acreage specialty crops, will not be able to afford the additional cost. All of this is going to force additional consolidation in the industry. Investment in future innovation, especially in gene editing, will be limited to a handful of very high-acreage crops and a handful of large companies.

Now seed innovation is, of course, not limited to plant breeding. Modern tools like biostimulants also offer tremendous promise to help mitigate and reduce greenhouse gas emissions, conserve and replenish soil health, and improve water quality. To fully realize their value it is important that the farm bill sets a clear Federal definition as is called for in the Plant Biostimulant Act, which was recently introduced in the Senate and the House. Special thanks to Senator Braun for leading and to Senator Grassley for co-sponsoring that key legislation.

Finally, when it comes to research, strong investments from discovery through development lead to better varieties, and this means better outcomes, both short-and long-term, for farmers, consumers, and the environment. Robust farm bill funding for primary USDA research is essential and desperately needed to continue supporting the work of programs like the National Plant Germplasm System, the National Clean Plant Network, and the Specialty Crops Research Initiative.

Thanks again for the opportunity to provide testimony on behalf of the seed industry and the plant breeding community. We look forward to serving as a resource in important discussions related

to the farm bill as they continue, and breeding and seed innovation, in general.

I will be happy to answer any questions you have.

[The prepared statement of Dr. Worthington can be found on page 40 in the appendix.]

Senator FETTERMAN. Thank you, Dr. Worthington.

Ms. Kobus, you are now recognized for five minutes.

STATEMENT OF DIANA KOBUS, EXECUTIVE DIRECTOR, PCO CERTIFIED ORGANIC, SPRING MILLS, PA

Ms. KOBUS. Thank you, Subcommittee Chair Senator Fetterman for the invitation, Ranking Member Senator Braun, distinguished Committee members, and the staff who make this time possible.

It is an honor to report to you today on how the farm bill can better serve organic specialty crop producers, especially through the certification process. I am proud to represent Pennsylvania, a State that enjoys supporting for organic from the highest level. It is third in the Nation in organic sales and is the only State with our own farm bill. It is my deepest hope that this is the beginning of many conversations we will have about organic farming and the good these farmers are bringing to all of us.

This dedicated group of specialty crop farmers and operations, and the research and infrastructure communities that serve them, bear a great regulatory burden for voluntarily choosing to utilize ecologically sound practices. Their work serves as a lesson for all of us. They function with, and as part, of nature. It is not an overstatement to say that their work is one of few things we can depend on to ensure the health and future of humanity, as we all continue to experience the increasing effects of excessive extraction from nature, for the economic benefits of a few.

These farmers know that fundamentally, you cannot have unlimited growth in a system with finite resources without creating harm. Day in and day out they do the hard work it takes to have a food supply that supports healthy people, a healthy business, and a healthy community. To invest in their work and the cost of organic certification is to invest in all of our futures. They provide the solid foundation of a resilient supply chain, economic regrowth in support of community well-being, and services that can ease the many cost burdens of healthcare, energy, and environmental remediation. We get their feedback every day, and they need more support.

The farm bill can better serve these organic producers through additional funding and making current programs permanently funded. A crucial step is to unify and streamline programs to help producers find, understand, and follow through with accessing them without redundant paperwork requirements.

Requests for additional program support fall into three categories. One, health benefits. Organic practices bring many health benefits which are further detailed in the written testimony. Achieving them requires transition incentives for small farm certification, including direct payments to farmers; more funding for the National Organic Program to work with certifiers, making the certification process more uniform; and including automatic access to programs for farmers; more funding for research that will en-

courage land grant universities to take on this work and compete with funding from chemical and pharmaceutical companies; making funds for the top regional centers permanent, and coordinating the Organic Transition Initiative efforts with the newly announced Regional Food Centers, streamlining delivery of technical assistance, training, and market and work force development.

Economic benefits. The Organic Hot Spot research from the Organic Trade Association and Penn State shows us that organic farming does not, as a rule, occur in wealthy communities, but it creates more wealth in communities. To support regrowth of these local strong communities, organic farmers need changes to crop insurance; equitable access to land for beginning and BIPOC farmers, and therefore production and distribution of food; new and better-connected infrastructure, including organic processing and distribution facilities, and coordinated market development.

Three, ecosystem services. Again, more details are given in the written testimony, but we need recognition and compensation for ecosystem services that these producers are providing, including automatic qualification as certified organic operations for any climate-smart benefits. We should also make every possible effort to fund and connect the work of indigenous communities with our efforts, since theirs are the original climate-smart practices, and we have much to learn from them.

In conclusion, the organic specialty crop community has an outsized regulatory burden for doing right by us all. They also have seemingly endless reserves of strength to accomplish the most sacred of tasks—figuring out how we can better nourish one another. Organic certification costs are only going to rise as this sector grows and the need for oversight increases with it. When we attempt to make organic food cheaper, we are approaching the problem from the wrong direction. We must recognize the true cost of healthy food production as well as the many externalized costs of conventional production practices and invest accordingly via the farm bill.

Investing in organic research programs at the Agricultural Research Service and National Institute for Food and Agriculture will help farmers comply with organic regulations and thrive in the growing organic marketplace. This investment will result in healthier people, more resilient local economies, sustainable job creation, and stronger communities.

I look forward to any opportunity to talk further with your offices on these issues. Thank you.

[The prepared statement of Ms. Kobus can be found on page 46 in the appendix.]

Senator FETTERMAN. Thank you all now. We will now begin our five-minute rounds of questions for each member, and I am going to begin and start for myself. To everyone that I am going to be asking the questions, please recognize that I only have five minutes and I would like to get to three different questions, so here we go.

Mr. Alonzo, as Pennsylvania's lieutenant Governor I became very familiar with the commonwealth's robust mushroom industry. Of course, it is called the "Mushroom Capital of the World," right?

Mr. ALONZO. Yes.

Senator FETTERMAN. Yes. It is remarkable when you realize that it is about 60 percent comes from that part in Pennsylvania. I know there are very specific, in particular, challenges that you face. As we consider this year's farm bill an insurance for specialty crops, what would you like us to know about unique risks that are associated with mushroom production?

Mr. ALONZO. We grow indoors, although most of the process starts outdoors. We have all of our byproducts. The compost we make is great nutrition for the mushrooms, but that means other funguses, other pathogens want to get to that food as well. We are unique in that we need some attention for that crop where we could have a huge disaster by being so specific in what we do. We are unique to any other crop because mushrooms do not need sunlight. That, along with, you know, the fact that other pathogens really want to get in there.

Senator FETTERMAN. Yes. I am going to ask a question that is kind of like a little off it. I have been an advocate of psychedelics in terms of the magic mushrooms for PTSD and for veterans, especially. I always thought it could be—and maybe I am wrong—an amazing economic kind of boom for the mushroom, for the producer now, and I think it could be a revolution in mental health. Are you open to thinking of that, or this something that would be like, no, no, no?

Mr. ALONZO. We are absolutely open. We are entrepreneurs. More importantly, we are trying to create healthy food for the community, for the U.S. When we look at it, mushroom mycelium goes into products like furniture and soaking up oil. The nutrition side of mushrooms, we got to research through USDA with the Mushroom Council. Anything that ties in—health benefits, medical benefits—we are open to looking at. Obviously, you have to do it within parameters of being secure, safe, and responsible, but we are open to it.

Senator FETTERMAN. I think we should have more research and microdosing and other issues, I think, is essential, but thank you for that.

Moving over to Ms. Kobus, you know, certifying agents are leaders in implementing the USDA organic standards, and I know how crucial it is that standards are for certified organic producers. How can the USDA be more ensuring that the organic regulations are uniformly and consistently applied?

Ms. KOBUS. The USDA can take ownership of developing a program and certifying all organic inspectors under a standard such as ISO 17024, very similar to the program for food safety auditors and the need that arose in that industry. Organic is an industry that has really grown up now, and we need to professionalize some of these careers in order to maintain and grow the industry.

Senator FETTERMAN. Thank you. Dr. Worthington, I am interested in your research as it relates to a specific issue in Pennsylvania, the spotted lanternfly. I relish stomping on them, personally. They have a satisfying crunch when they go. Anecdotally, they seem like they really are starting to spread even more and more in Pennsylvania. A couple of years ago I never would have seen one in western Pennsylvania, and now I see them much more so, just a few years later.

Do you have any technologies that you discussed in your opening statement protecting crops from this and other pests? Do you have any more advice, any kinds of things about it?

Dr. WORTHINGTON. Well, I, in Arkansas, have not had the opportunity to crunch a spotted lanternfly yet because we do not have them yet in our State. I am aware that they are a major problem, especially in the Northeast U.S., and they are growing in their range, and they affect a wide range of specialty crops, many of which I work on, including grapes and peaches. It is something that I have got my eye on, for sure.

I think any approach to managing spotted lanternfly is going to be really interdisciplinary. I imagine you will see proposals coming through the Specialty Crops Research Initiative to tackle this pest.

I am not aware of any specific insect resistant genes that could be deployed right now for resistance to spotted lanternfly. However, I think it is important to make it possible to create these technologies in a fast way. You know, if we found it in a wild relative now, an insect-resistant gene for spotted lanternfly, it could take us 20 to 80 years to get it into a leaf plant material, and it could be done much, much faster using precise tools like gene editing.

I encourage the Committee to consider making science-based regulations that would enable us to tackle these problems quickly.

Senator FETTERMAN. Thank you. I now recognize Senator Braun.

Senator BRAUN. Thank you, Mr. Chairman. By the way, I share your passion for mushrooms. I, along with maybe Senator Heinrich——

Senator BOOZMAN. The psychedelic type?

Senator BRAUN. Maybe not the psychedelic type. I pursue morels, chanterelles, oyster shell mushrooms, hen of the woods, chicken of the woods. The variety of mushrooms that are out in the wild is amazing.

Real quick question. Has there been any attempt to cultivate them? Because I know they go for about $50 a pound.

Mr. ALONZO. We have tried to cultivate every single variety, and the ones you see in the grocery store are the ones we have been successful at. That does not come from a lack of effort. We have been able to do truffle, for example, but not in a way that we can actually stay in business. We keep trying, and research will help.

Senator BRAUN. Well, the amazing figure of how many pounds you can do per acre, and when I know what they go for in the marketplace——

Mr. ALONZO. We would flood the market.

Senator BRAUN [continuing]. it sounds like it would take farming to the next level.

A question is going to be for Dr. Worthington and Mr. Carter. I introduce the Plant Biostimulant Act with Senator—and it is bicameral and bipartisan as well. This bill would build on a USDA report from 2018 to help bring biostimulants to the marketplace. The products have several potential benefits including increased tolerance of abiotic stress, decreased nutrient runoff, improved quality and yield. It just looks like a host of benefits.

Mr. Carter, would you weigh in on how, as a specialty crop producer, they would benefit maybe you and others that are in your particular business?

Mr. CARTER. Absolutely. Thank you for your work on that. Biostimulants, as you said, would have a large impact for specialty crop producers. I can give you one example. We grow a lot of sweet corn. It is a huge consumer of nitrogen. The availability of nitrogen in the soil does not always translate to the amount that can be taken out because of the biomes going on in the soil and some of the chemistry taking place there, which I will let Dr. Worthington explain more because she probably is more qualified.

I know Mud Creek Farm is so named because we are bordered by Mud Creek, which is an important watershed in our community, so nitrogen runoff is something that we have to take very seriously. Similarly, specialty crop producers, tomatoes are continually seeing more and more impact of something called the blossom end rot, which has to do with calcium uptake.

Increasing the soil biome is key. We handle that on our farm. We shovel a lot of stimulant out of the chicken barn, and that has increased the soil biome quite a bit. I support the work for biostimulants as well.

Senator BRAUN. Thank you. Dr. Worthington, about a minute. Weigh in on the scientific side.

Dr. WORTHINGTON. Well, I do not work on plant biostimulants directly, but my understanding is they could be anything from microbial agents like mycorrhiza bacteria, algal extracts, organic acids, amino acids, or purified molecules like chitin. It is really important to regulate them and have a clear definition to be able to make sensible regulations. I know a lot of countries around the world have come up with clear definitions and have had new regulations passed that have enabled more research and development and commercialization of these products, making sure that they are effective and helpful for consumers.

Senator BRAUN. Thank you. Mr. Carter, you have been at the leading edge of specialty crops, being an entrepreneur out of the gate. I think that is always an interesting combination when you are so passionate about something you parlay it into something where you can grow a business. You have been at it. You have talked to other farmers. What are the three or four issues, because when we look at sustainability in agriculture, and we talk about what you can do with mushrooms on one acre, it is many times less resource intensive, a lot more income per acre? What are the three or four issues you hear most that keep this niche from becoming larger and more impactful?

Mr. CARTER. Thank you. One of the first ones that comes to mind has been regulatory hurdles for small producers to find market access. That is one thing I mentioned earlier in the work that we did in Indiana. One of the things I am engaged in quite a bit in Indiana happens to be interfacing between local health departments. The people that are responsible at the ground level of enforcing regulation often do not have the training, understanding, legal mindset that went into writing it. They overreach, and they create more burden than even as in the code itself.

Second is access to processing. We lack a lot of value-added processing in Indiana on the meat side as well as on the produce side, which could create more market access. When we think about fund-

ing, we think about incentives, we should look at bringing processing back into some of the local communities.

Senator BRAUN. Thank you.

Senator FETTERMAN. I now recognize Senator Booker.

Senator BOOKER. Thank you very much, Mr. Chairman. I just have to jump in on the mushroom bandwagon here, of all different types of mushrooms, I agree, but the data on psychedelics is extraordinary in terms of helping our veterans with PTSD, the ongoing research done at Hopkins and Columbia. I think it is something that we, as a Nation, need to start looking at, especially if we are trying to help a lot of folks who are coming home, hurt and harmed. I think it is a great specialty crop perhaps, and opportunity. I will jump off of that before my staff gets mad at me that I am off script.

Look, the title of the hearing is how the farm bill works for specialty crop producers. Unfortunately, it does not work well. It really does not. We are a nation, that you so rightly said, that our Federal dietary requirements say 50 percent of our diet should be specialty crops, but less than 10 percent of the farm ag subsidies go to farmers who grow fruits and vegetables. It is a stunning reality. If you are a small farmer growing specialty crops, the farm bill does even less to really help you. It is a stunning reality.

In fact, 93 percent of small farmers do not get crop insurance. Only seven percent take advantage of it. This is really stunning, especially when the majority of our farmers in America are small farmers. What they do for our local food systems, what they do for rural communities, the added benefit that our small family farmers are doing in America are incredible. We are a government that has really established help and support for large commodity crops and making it very hard for the food that we eat, as a country, to be produced.

Really quickly, Ms. Kobus, as you know, many organic farmers operate these small acreage farms. Yesterday I introduced a bill to establish an Office of Small Farms at USDA, which would directly serve small farmers with microgrants and technical assistance and would do a review of all USDA programs to make sure that they are accessible and beneficial to these small farmers. Can you explain really quickly the impact this type of USDA office would have for the farmers that you work with?

Ms. KOBUS. Absolutely. It would have huge impact. I support that idea 100 percent. It would give them a voice and get them a short way to reach help and reach assistance with the programs that are out there. A lot of the programs are not being taken advantage of because when you run a small farm, you know, farmers want to farm. They do not want to do paperwork, not to mention redundant paperwork. It would be huge in giving them the support they need to walk through what actually can help their farm and get it moving.

Senator BOOKER. Yes. The bureaucracy that a small farmer has to go through, who is not equipped to do it, is stunning. One of the things, when I visited with farmers, organic farmers around New Jersey, I just did not know the whole crop insurance system is not built for small farmers. The people who do this get commissions that are based on the size of the insurance policy premium. It is

kind of a warped, in my opinion, incentive. These incentives focus agents on writing policies with the big farms and disincentivize them from helping the majority of the farmers in America who are small farmers.

I believe in this farm bill we need to change this structure so crop insurance agents' commissions are based on the complexity of the policy, not the policy size, which would incentivize the agents to write a lot more crop insurance policies for small specialty crops.

Would this type of change be beneficial to the organic farmers that you work with?

Ms. KOBUS. Yes, absolutely. Additionally, technical assistance to educate those insurance agents would be additionally helpful, and data collection about the value of these specialty crops, if we could get the land grant institutions compiling research on the value it would definitely help with the crop insurance issue.

Senator BOOKER. I really appreciate that. Then just last, Mr. Carter, you state in your testimony that USDA should use its purchasing power within the fresh fruits and vegetables program to buy locally grown fruits and vegetables. We have incredible power within the Federal Government, but we are not using it to help to sustain, again, the food that America eats, not the ones that we put into the larger global commodities market or put into feed. This is folks who are growing the foods, that are keeping America healthy at a time that, again, Mr. Wingard, you pointed out. We are a nation that is exploding in diet-related diseases caused by these hyper-processed foods. It is stunning to me the cost taxpayers are paying right now. About 1 out of every 3 dollars that our Federal Government spends is being spent on health care. The overall majority of that is for preventable diet-related diseases.

Can you just talk about the impact it would have on local food systems, on local communities, on rural communities, on farms like yours if the USDA substantially scaled up local procurement?

Mr. CARTER. Yes. Thank you. Like I said, the schools are embedded in the communities where the food is grown, and like I mentioned, it is highly seasonal. We could scale up our production if we knew that there was an access to sell surplus. I would put substantially more tomatoes in, cucumbers, and the like if I knew that as I had surplus, as I had more supply than my own small retail stand could move, that there was an institutional buyer ready, and incentivized, to take that crop.

Senator BOOKER. Mr. Wingard, last—and I know I said two "lastlys"—but the programs like SNAP you mentioned, I have seen the incredible success of the GusNIP program, for example, drawing people toward local farming systems. It is an incredible purchasing power that we are using. Unfortunately, what I see often SNAP dollars used for without those incentives is the very foods that often lead us to explosions of diabetes, explosions of diet-related diseases.

Is that a way by trying to do incentives within our existing programs like GusNIP to get more of that governmental purchasing power toward supporting those who produce healthy foods?

Mr. WINGARD. Yes, sir, and you have got to realize, people that are on SNAP are the people who need it, and they do not have a lot of purchasing power when they go into the grocery story. Our

crops a lot of times are the more expensive crop or the more expensive products in the store, so they are going to feed more mouths with less money by buying those items than buying our items.

Any kind of way we can get those SNAP recipients incentivized to buy fresh fruits and vegetables will be good because it will start that transition in their lives to a healthier diet, to a healthier lifestyle, and less medical costs down the road. The fresh fruit and vegetable SNAP program is a great, great example of this.

Senator BOOKER. Mr. Wingard, you are a kind, gentle man. I am going to be your anger translator here for a second. It is not only the free market that is making organic foods more expensive. When my kids walk into a bodega, they are paying less for a Twinkie product than an apple because we subsidize everything in the Twinkie and not the fresh fruits or vegetables. It is not like you are working in a free market. You are working in a market that is stacked against the crop commodities and the crops you are growing.

I will be your anger translator any time you want, sir.

Mr. WINGARD. Based on what you just said, and I heard the argument awhile back, we have subsidized obesity.

Senator BOOKER. Yes, we have, and not just obesity. We pay twice. We subsidize the things that make us obese, and then we subsidize the Medicaid and Medicare that treats everybody. We are a government that is digging a deeper and deeper hole, that is not only racking up costs—if you look at the Medicare and Medicaid costs over 20 years projected, we will not be able to afford anything in government. We are not only digging a deeper and deeper hole, but we are also adding to sickness and misery in our society. It is ridiculous.

All right. Mr. Chairman, thank you.

Senator FETTERMAN. Quite reasonable, Senator Booker. And now I am pleased to introduce our Chairwoman, Senator Stabenow.

Chairwoman STABENOW. Well, thank you. I think Senator Boozman was up next. I do not want to—Senator Boozman, were you up next?

Senator BOOZMAN. I think it was Senator Tuberville.

Senator TUBERVILLE. Well, I am learning a lot about mushrooms—

Chairwoman STABENOW. Oh, good.

[Laughter.]

Chairwoman STABENOW. This is good. We grow those too. Well, and I apologize for coming in late. Thank you.

Senator FETTERMAN. You should go next.

Chairwoman STABENOW. Yes. Thank you. I just actually came from the Senate Budget Committee that was also focused on agriculture and the costs of the climate crisis, and we had really great farmers there testifying about crop insurance, the importance of crop insurance, and the importance of conservation and the efforts that they feel are helping them mitigate the risk. It was a very interesting panel.

I want to thank you and Senator Braun for holding this meeting, and we are an incredibly diverse State in Michigan in terms of agriculturally. We are second only to California in the number of different kinds of crops that we grow. Even though dairy is No. 1, the

bulk of what we do is specialty crops. I appreciate all of your apples and asparagus and blueberries, and our world-famous tart cherries. You name it, farmers in Michigan grow it.

Supporting specialty crop growers has been a priority of mine since, frankly—I was in the U.S. House, working on the Agriculture Committee, and then was able to get the first-ever horticulture title to the 2008 Farm Bill. Mr. Chairman, at the time they said, "You do not add new titles to the farm bill. That is not possible." Because of an awful lot of hard work of a lot of people, we defied the odds, and we now have a title for specialty crops, which are almost half the cash receipts from the country. It is so important, as Senator Booker was talking about, in multiple ways, and certainly starting with our health and well-being. So 15 years later, here we are, continuing the benefit and more that we can do together, for sure.

Mr. Wingard, I wanted to start with you. First of all, I understand that you are now operating in Michigan, so good choice, before coming before the Committee. This was very good. Welcome to Michigan. I wondered if you could speak more—you know, one of the things that we did when we put the horticulture title in place was to look, with all the diversity of specialty crops, rather than our row crops and so on, and the way we were handling support for them, we set up to the Specialty Crop Block Grant Program. All these years later, the program has invested about $1 billion in specialty crops. We certainly have seen this in Michigan, the different grower groups that have been applying.

How have these sustained investments from Congress directly benefited specialty crop growers, in your mind, and I welcome any other thoughts on what else we should be doing.

Mr. WINGARD. Well, I am very familiar with the Specialty Crop Block Grant Program, and I do love Michigan. I am going to harvest, in one week, my first harvest in Michigan.

Chairwoman STABENOW. Wonderful.

Mr. WINGARD. I am in the Athens area, and it has been a very pleasant experience thus far. Everything looks really good up there. It looks so good, I am scared of what is coming around the corner. I am very familiar with the Specialty Crop Block Grant Program. It is used in all States, South Carolina for sure. What it does—and I have got some examples here—we had a leaf blight on mustard and turnip greens about 15, 20 years ago, and a lot of funding came through Specialty Crop Block Grant Program to work on new varieties for that. Clemson was the only public university to work on that, and along with USDA, a tremendous collaboration between those two organizations. Now we have two varieties of turnip greens.

They started with 1,000 different species of mustard and turnip greens, collected from around the world. They came to my farm and planted 750 of them, maybe 10-foot-long rows on about two acres. It looked like a bunch of weeds to me. They found 1 species out of 1,000 that had resistance. Through traditional breeding methods it took them about 12, 15 years to get that resistance into a turnip green and a mustard green that had desirable qualities for the market. We have two now, Charleston Southern and Carolina Southern, I think.

A lot of that funding came through the Specialty Crop Block Grant Program. The overarching thing there is what that block grant program does is it sends the money from Washington to State capitals and then lets the State capitals divvy up the money to the research where it needs to go, because the people in the State Departments of Agriculture know what the needs are. They are much closer to the problems, much closer to the researchers, and the money is better spent doing it that way than trying to be directed out of Washington to go here, there, and yonder.

Chairwoman STABENOW. Thank you very much. I agree.

Mr. Carter, I want to talk a little bit about local food systems. I am a very strong supporter of local food systems. Your startup, Market Wagon, is working in communities like Detroit and Grand Rapids to connect Michiganders to local vendors—I am very excited about that—including many who are selling, of course, fresh fruits and vegetables.

The COVID–19 pandemic really shook the ag supply chains, as we all know. How did the pandemic affect demand for locally produced foods across your network, and how do thriving local markets like those in Grand Rapids and Detroit help expand business opportunity for small and diversified farmers?

Mr. CARTER. Thank you, Senator. Yes, you are right. The pandemic had a big impact on our operation, mainly because we are e-commerce with delivery, so obviously everybody needs to stay home and take delivery of food. There was a large spike on the demand side of that marketplace.

On the supply side, which is what we are here to talk about, the producers, suddenly their restaurants that they sell to, farmers markets, most of the markets that small producers can sell in were shut down. The resilience of small, diversified farms is that they are agile, so they were able to immediately—and by immediately I mean in a matter of a week—divert inventory, divert production from what was going into food service and to farmers markets or other retail to Market Wagon. We grew 600 percent in four weeks. It was a matter of scale that can almost break a company. It is only because we were able to match the supply with the demand as that was growing, growing broader just in terms of what a marketplace like this and local foods mean.

You know, the average age of a farmer has gone up by a year almost every year. If you are a statistician, that is not good for new people coming into the industry. I am a fourth-generation farmer, and I would have left the farm. I would have been a part of that statistic. I was 18. There was no future in the small farm at that time.

What we are seeing now, through creating market access—Market Wagon and other similar enterprises—is the ability for someone in my generation or younger to say, "Dad's got 2,000 acres of corn and soy," or whatever, large-scale ag, "and there is not enough income there for me to join that enterprise. I can take these three over here and I can make specialty crops and make a living on it." And that is amazing.

We are seeing first-generation farmers, we are seeing next-generation farmers, and we are bringing people into this industry, cre-

ating jobs, creating entrepreneurship, and I am really excited about that.

Chairwoman STABENOW. Thank you. Thank you, Mr. Chairman.

I just wanted to underscore what you just said, because when we think of markets in the Agriculture Committee, traditionally over the years we have thought of trade, and certainly we feed the world, American farmers, and trade is really important. There are more markets now that we are talking about, and we have farmers, a lot of younger farmers, that are making a good living out of local and regional markets right here. It is exciting because we have got more opportunity to have money go back to rural towns and be able to strengthen rural communities by having different kinds of markets, which I think bodes well.

Thank you, Mr. Chairman.

Senator FETTERMAN. Thank you. The Chair now recognizes Senator Tuberville.

Senator TUBERVILLE. Thank you, Mr. Chairman.

You know, being a former college football coach I learn a lot in these hearings—mushrooms, spotted lanternflies—but hey, turnip greens are right up my alley, Mr. Wingard, and collards. You did not bring that up, and I am kind of disappointed, but that is all right.

You know, in Alabama, my home State, we have 3,500 specialty crop farms and 60,000 acres, and growing, and hopefully we will continue to grow. Mr. Carter, my concern is we are losing our generations of farmers. We are selling out because we cannot make any money. Some can and some cannot. I think specialty crops are going to be a boon for us, and we talked about the SNAP program and farmers markets and all those things, where people can actually make money with what they do.

In this farm bill we have got to prioritize what we are doing. Safeguards, you know, for the small farmer, not just the big farmer. We have got to have competitive markets.

Mr. Wingard, I want to ask you about this. In Alabama, we have 200 farms that utilize H–2A programs, temporary and seasonal workers, and if we did not have that, they could not survive. Now we have started this Adverse Effect Wage Rate program that determines wages for the H–2A, and we are going up, what, 14 percent this year, and I think it is going to cost us $8 to $10 million to our farmers. Give me your thoughts on that.

Mr. WINGARD. Okay. Well, first of all it is going to cost you more than $8 or $10 million.

Senator TUBERVILLE. I am just talking about for our State.

Mr. WINGARD. I am talking about for your State too. It will be a higher cost than that.

Senator TUBERVILLE. Do not hurt my feelings now.

Mr. WINGARD. Well, you should know, first of all——

Senator TUBERVILLE. Our farmers listening to this, by the way.

Mr. WINGARD. Collards is my biggest crop. I did not mention that. I am a Tiger letterman. My blood runs orange. I was on the football team at Clemson.

Senator TUBERVILLE. Oh, okay.

Mr. WINGARD. I was just a water boy.

Senator TUBERVILLE. Well, you took everything from us at Auburn, you know, the mascot and everything. But go ahead.

Mr. WINGARD. Yes, sir. Anyway, the H–2A is a serious concern to us. It is literally an obstacle. One of the regulatory burdens you have heard about here today, our H–2A wage rate in South Carolina is right at $15 an hour. We got the 14 percent pay raise too, and Pennsylvania, I think, is $17, and Michigan is $17, $18.

We do not know, as producers, how it is set. We do not know what it is until about maybe the 5th or 10th of December, and it goes into effect January 1st. If we bring workers in on November 1st for 10 months, and we sign a contract, everybody agrees to the contract, and then on January 1st, the wage goes up, so the contract really does not apply to the wages. It is becoming a disincentive for farmers to try to do it the right way as it speaks to labor.

My business model, in my business, labor is about 30, 35 percent of our total expenses, so that 15 percent wage rate we took in December, 5 percent fell straight to the bottom line. When you have long-term contracts such as larger growers do, buyers do not really care about what our wages did or what our costs did. We agreed to the contract, and they expect us to deliver at that price. Now we have to cut costs somewhere else.

Senator TUBERVILLE. What is the answer?

Mr. WINGARD. The answer is fixing the labor program, fixing the H–2A, having some serious reforms in the H–2A program.

Senator TUBERVILLE. Has anybody else got a thought on that, the H–2A? Anybody? Nobody. All right. Thank you very much.

Mr. Carter, the adjusted gross income and other forms of means testing disproportionately impact specialty crop producers from participating in certain USDA disaster programs, like the Noninsured Crop Disaster Assistance, Tree Assistance Program (TAP). However, the Emergency Relief Program does not have a cap on AGI, allowing specialty crop producers opportunities for large payments to compensate for their losses.

What are your thoughts on instituting a waiver of the AGI means test for the NAP and the TAP disaster programs which operations derive at least 75 percent of their income from farming and forestry? What impact would that have on family farms and specialty crop growers?

Mr. CARTER. Generally, I think that having the AGI limits on any of these benefits seems counterproductive. I am not personally knowledgeable. I do not have any direct experience in that situation, but it seems that taking the most profitable, which typically, in a free market enterprise, means the most successful and the best at what they do, and telling them that they are not eligible to have risk mitigation does not stand to reason to me.

Senator TUBERVILLE. Does anybody want to comment? Anybody else?

Mr. WINGARD. I agree with your thoughts, and I think that the AGI means testing is punishing those who did the best, those who took the risk, grew, reinvested in their company. I think the AGI means testing punishes them.

Senator TUBERVILLE. I have got one more question. Mr. Wingard or Mr. Carter, or anybody, our Southeast fruit and vegetable growers are impacted by cheap imports from countries that do not ad-

here to our Nation's environmental and labor laws. Neither the USMCA or the International Trade Commission has resolved these issues. Growers continue to seek Mexican and South American imports hit grocery stores at the same time as U.S. harvest, decreasing the price our farmers receive for their products. Should this be addressed in the farm bill, and any recommendations? Anybody?

Mr. WINGARD. So, Coach, the U.S. domestic producers have high costs to produce our food because of regulations and high standards, and those costs are what we invest in our people, our process, and our facilities, in order to achieve those standards and to meet the regulations. If the farm bill wants to address that, and I think that is fine to do, then we need tools like market development, we need money for research and technology, we need access to better crop enhancement materials so we can spend $25 an acre on weed control with an effective herbicide instead of $225 or $325 an acre using hand-pulling, we call that pulling.

You know, we need access to robotics. We need research on robotics, robotic weed control, robotic weeders, robotic transplanters, which is what we are looking at, and we need varieties that are improved varieties that have better disease resistance, drought resistance, pest resistance, and other ways that can help us offset the cost of our production.

Senator TUBERVILLE. Basically, you need the tools to be able to compete.

Mr. WINGARD. We need more tools in the toolbox, yes, sir, more plays in the playbook.

Ms. KOBUS. The organic demand right now in the United States far exceeds the supply we are able to put into it domestically, so we would love to get those farmers a higher premium for the crops that they are growing by transitioning them to organic, and that could be a huge boost to those local communities, and it is a sustainable way to build those communities. The demand is definitely there.

Senator TUBERVILLE. Thank you. Thank you, Mr. Chairman.

Senator FETTERMAN. The Chair now recognizes Senator Boozman.

Senator BOOZMAN. Thank you, Mr. Chairman. We are not used to witnesses and Senators trash talking each other during the hearing.

[Laughter.]

Senator BOOZMAN. Dr. Worthington, thank you for your testimony and thank you for the work that you are doing on agriculture biotechnology. Regulatory certainty is of paramount importance. For decades now, the Federal Government at large has attempted to harmonize and modernize its biotechnology approval process which would pull this regulatory system into the 21st century and provide the transparency and predictability developers, farmers, and consumers need. These principles are also a key to American innovation to U.S. agricultural production and to addressing global environmental challenges. The list goes on and on. The Department of Agriculture made great progress in this endeavor and should be commended.

Unfortunately, last week the EPA released a final rule on plant-incorporated protectants, commonly known as PIPs, that does the

opposite. This rule will frustrate U.S. innovation, drive companies to export their staff, investments, and technologies to our international competitors and create market barriers that only the largest multinational corporations can overcome. In short, EPA's PIP rule puts American farmers and consumers last. More significant, it removes another tool from the toolbox that specialty crop producers, all producers, so desperately need.

Dr. Worthington, you work in the field every day. What impact will EPA's rule on have on U.S. agriculture and U.S. innovation?

Dr. WORTHINGTON. Yes. I think it is going to disincentivize innovation, and I think it is going to have a disproportionate impact on specialty crops and on small and medium-sized enterprises and public sector investment. You know, there has been so much investment through farm bill-sponsored programs, in research, and in plant breeding. You know, we find all these disease resistance genes. We do all this work. What this is going to do is make it more difficult to commercialize those products.

I think that ultimately you are going to see more consolidation in the industry with this regulation, and the innovation will be on a few large crops, by a few very large companies, like you have seen with older transgenic technologies, despite the fact that we are dealing with a very, very different technology here, with, you know, traits, genes that are from sexually compatible species that have already been produced using conventional plant breeding.

I would just advocate for a more product-rather than process-based regulatory framework. I want to highlight that the new EPA rule is a setback for interagency alignment. It is in direct conflict with the USDA's recent revisions to its Part 340 regulations, and it is also out of step with a lot of other countries, including our No. 1 seed-trading partner, Canada, which has a very progressive, science-based policy on regulation of these plant-incorporated protectants that are existing within sexually compatible species.

Senator BOOZMAN. Good. Thank you very much.

It is interesting, Madam Chair, one of the things that we have discussed at length, because it has come up through these subcommittee hearings as we talk to producers, and again, both of us are out and about the country doing listening sessions, is the amount of paperwork that you have to endure. It impacts specialty crops much more than the other commodities, in the sense that they are used to doing it. You know, they have just kind of grown up in this.

The other problem is that for conservation programs and things like that it is easier to get a larger grant than it is a small grant, you know, where the small grant can make every bit as much difference in what you are trying to achieve.

You know, the way you can help us is put that at the top of your list. It is interesting—Several of the witnesses talked about that already, you know, brought that forward, but this is something that is not going to cost money. This is going to save money. This is going to make you so much more productive. It will level the playing field, okay. If you have a decent education you ought to be able to fill the form out.

Then the other problem that we have got is not getting it done in a timely fashion. That is the other problem is us having to wait on these things.

Thank you for mentioning it, and let's really be unified in that. That is something that I just do not think there is any excuse for. You know, those are things that we can fix. We appreciate your testimony, and we are going to work really hard to see how we can be helpful in the next farm bill. Like I say, thank you very much, Mr. Chairman, for holding the hearing.

Senator FETTERMAN. Thank you. The Chair now recognizes Senator Warnock.

Senator WARNOCK. Thank you, Mr. Chair. I think all might be aware that Georgia is known as the Peach State, but climate change is threatening to put our State fruit at serious risk. This year, Georgia experienced a very mild winter, and then we got a late freeze, and this combination, kind of a one-two punch, wreaked havoc on our peaches. Experts from the University of Georgia estimate that 90 percent of Georgia's peach crop failed, 90 percent.

Mr. Wingard, I know that South Carolina and some of the other Southeastern States where you work grow a lot of peaches and other specialty crops similar to Georgia. Can you describe how the changing climate has affected production in the Southeastern United States?

Mr. WINGARD. Thank you, Senator. I do not do any peaches. I am a leafy greens guy. I will tell you what I know, and it is not much. They are struggling with climate change. They are struggling with different patterns of weather, and we too have seen a significant decrease in peaches. I think our number is in the 60, 70 percent decrease or loss.

I think that can be addressed a little bit through some research. It is a long process to fix because peach trees are about three or four years old before you ever pick a peach. There is a lot of research going on, on peaches. Dr. Worthington and I were discussing it before the hearing. I think peaches, and other crops that are affected by climate change, can be bred to adapt to a new climate.

I spoke earlier in my oral comments about the East Coast Broccoli Initiative, and that is essentially what that was about, is to get broccoli varieties bred that are adapted to the climate in the Eastern U.S. as opposed to the Southwestern U.S. I think research is the answer to that.

Senator WARNOCK. We will only see continued climate change. That is not going away, sadly. It will continue to cause uncertainty for growers, so research is important. Also as we get the research we have got to be nimble in our policy approach, because the research is not going to help us much if we are not able to apply it to our practices.

In 2021, Georgia produced 130 million pounds of peaches valued at $85 million. When these crops fail at this large of a scale that affects the producer, but we need to remember that the local economy also takes a hit. As we reauthorize the farm bill, do you or anyone else on the panel that would like to speak to this, do you agree that our crop insurance programs need to be updated to better reflect the realities of climate change and avoid ad hoc disaster programs?

Ms. KOBUS. Yes. I think it is really important to recognize that if we are not talking about the root causes of climate change, and industrial agriculture being second as the root cause of climate change, we are doing a disservice to the discussion here today. Technology is going to help us continue to adapt, but we can only adapt so far. You know, there is a thin layer of the atmosphere and a thin layer of the soil that provides life to us humans on the planet, and we really need to engage in the practices to mitigate the effects of industrial agriculture and really transform the food system for all of our benefit.

Senator WARNOCK. We need to give our growers the tools in order to manage the actual risks that they are facing, which has implications not only for them but for our economy.

When I meet with Georgia growers, one of the issues they consistently bring up are the lack of options they have for managing risk, and one program they have come to rely on is the Tree Assistance Program. TAP allows producers to replant bushes, trees, or vines that produce an annual crop loss due to natural disasters. Currently the program does not allow producers to replace their damaged plants with improved varieties that are more resilient to disease or environmental changes and may even provide higher yields.

Mr. Wingard, can you describe the challenges that this creates for producers, and is this something you think we should address in the farm bill, or anyone on the panel?

Mr. WINGARD. Well, I am not a peach farmer and I do not do any trees, but I do think it makes sense that if you have trees or vines or bushes that are damaged and you have more suitable or improved varieties to replace them with, yes, it makes sense to replace them, and it makes sense——

Senator WARNOCK. And not being forced to replant the trees that you know are not going to work.

Mr. WINGARD. That is correct. In my opinion, you should do it a little bit along the way, so you do not have to wait and do a large part of it at one time.

Senator WARNOCK. Thank you. I am out of time, but I look forward to exploring ways we can make these kinds of technical changes in the farm bill that will improve the prospects of growers and our economy. Thanks, Mr. Chair.

Senator FETTERMAN. The Chair now recognizes the distinguished gentleman from Vermont.

Senator WELCH. I thank the distinguished Chairman from Pennsylvania and thank our witnesses. We love this Agriculture Committee. We all want to do the best we can, and you are really being helpful, and I appreciate it.

Just one observation. I kind of wonder why we use the term "specialty crops" when we are really talking about pretty healthy food, and healthy food is really important. I just want to thank all of you for that. Mr. Chairman, at some point I think we might want to consider a new name for "specialty," because this is tremendous.

One of the things that I think we are struggling with here on this Committee is to actually put more of an emphasis on the nutritional benefits of this healthy food. In the farm bill in 2018, we authorized $61.5 billion for the commodity crops, and they are im-

portant. When you compare that to $2 million for the horticultural crops, it would suggest that one element is getting pretty generous treatment and another element is being ignored, when, in fact, the contradiction is that all of these healthy foods are so good for us. I am for having a much greater emphasis on trying to get these programs more fully supported.

I will start with you, Ms. Kobus. Just outline what the benefits of local—I am going to continue using the term "specialty crops" but I do not like it, okay—what do they provide to our communities?

Ms. KOBUS. Oh gosh, well, so many things in addition to that local, sustainable economy, and the healthier food, less food miles that food is traveling. You know, the bigger a farm is, the more challenges we face. To transition more small specialty crop growers to organic, there are definitely challenges in doing that, but on the other side the health benefits. We know that it produces healthier food. We know it produces healthier soil.

Senator WELCH. You know, let me go on that point. One of the extraordinary contributions agriculture has to our communities is that the farmers are the custodians of the open landscape. One of the barriers to entry is it is so expensive. My sense is that for younger farmers, for folks in underrepresented communities, these smaller farms are an access point of entry if we can find ways that they can get the research that should back them up, the markets that they need, and that they are local.

I introduced the Opportunities in Organic Act that would, among other things, increase the cost-share payments for some of our underrepresented groups trying to get into farming. I will ask you again. Given your experience with the organic certification process, what do you see as the greatest barriers of entry to our small and mid-sized agricultural producers to transition to organic?

Ms. KOBUS. Yes. Definitely access to land is a big one, and those initial costs of certifying land that has not yet been certified. There are big challenges in that three-year period where you take an acre from convention land to certified organic. That act, in particular. It builds on a lot of the Transition to Organic Partnership Program work that we are starting out here in the organic community, but it really fills in the holes for a lot of the practical challenges.

Senator WELCH. Thank you. I am going to ask Dr. Worthington, too, to maybe comment on that. I do want to ask you about this, but I want to followup at some later time about your comment about the regulatory process in Canada versus the U.S. I came in at the tail end of that.

Just the question I asked Ms. Kobus, could you address that?

Dr. WORTHINGTON. Well, I have had a little bit of experience with the organic industry. I was funded by the Organic Research and Extension Initiative for my Ph.D. research that got me here today, I guess. I think her comments are much better than mine about the barriers to entry for organic growers. I have not worked in the certification sphere before.

Senator WELCH. All right. Okay, thank you. I see that my time is up, but I want to thank each of you for doing such important work on behalf of agriculture and the specialty crops. Thank you.

Thank you, Mr. Chairman.

Senator FETTERMAN. Thank you. Sincerely, thank you for coming and doing all the traveling from a long distance to share your experiences and expertise today. I sincerely can say that I learned from you today. The input from experts like you at these hearings are crucial to the work that we do as we write the bill. We want to remind that this farm bill is really all about farmers, all farmers.

We heard a lot today from witnesses of the need to support specialty crop producers and certified organic produce. As the farm bill takes shape over the coming weeks and months I will be working closely with colleagues on both sides of this office to do just that.

Also thank you again to our witnesses and my colleagues for being here. I look forward to making this bill work for all farmers, and you have really enriched the farm bill for coming today.

The record will remain open for five business days, and now this hearing is adjourned.

[Whereupon, at 11:32 a.m., the hearing was adjourned.]

APPENDIX

JUNE 7, 2023

AMERICAN MUSHROOM
1284 GAP NEWPORT PIKE, AVONDALE, PA 19330 AMERICANMUSHROOM.ORG

Testimony Before the U.S. Senate Subcommittee on
Food and Nutrition, Specialty Crops, Organics, Research
Written Statement of Testimony
Testimony of Chris Alonzo
Owner/Operator, Pietro Industries
June 7, 2023

Senator Fetterman and Members of the Subcommittee:

Thank you for the opportunity to appear before you today to talk about the mushroom industry. My name is Chris Alonzo, and I'm a 3rd generation mushroom grower from Pennsylvania. I've been growing mushrooms my whole life. While production in other states such as California, Oklahoma, Texas, Florida, North Carolina, and Tennessee is also strong, Pennsylvania produces 2/3 of the country's mushrooms. We do this 365 days a year, employing over 10,000 people in our Commonwealth.

Our farm, Pietro, was founded in 1938 by my grandfather, and today employs nearly 200 people. My grandfather was a founding member of our Trade Association, American Mushroom, and I am here representing that industry association, as well. I'm also a former board member of our USDA-based Mushroom Council.

Mushrooms are a uniquely nutritious fresh and functional food--a great source of protein and disease-fighting properties. Researchers have identified and tested cancer-inhibiting compounds in the common supermarket mushroom and have found that adding a mushroom serving to the diet increases the intake of several micronutrients, including shortfall nutrients such as vitamin D. (Food Science & Nutrition (January 2021)) Last, mushrooms have a universally compatible "umami" flavor, and are hearty and filling, which makes them uniquely able to enhance and economically extend both plant-based and meat-including diets, alike.

Mushrooms are uniquely sustainable, as well. They reuse water and grow on a small footprint: The equivalent of one acre of land can produce 1 million pounds of mushrooms annually. Mushroom compost, the bedding material needed to grow mushrooms, is formulated using up to 30 recycled ag byproducts, from poultry litter to corn stover to hay and wheat byproducts. This mitigates direct runoff and watershed impact for other farms by taking their crop waste. Mushroom growers therefore produce not only mushrooms, but a reusable, value-add soil amendment that sequesters carbon and regenerates soil.

All of these nutrition and mushroom compost discoveries have come from investment in research. Yet, the mushroom industry lacks critical resources required to stay competitive when it comes to operations. In an increasingly fast-paced agricultural sector, mushrooms need research on integrated pest management (IPM) to mitigate fungi-specific pests and pathogens; research on the beneficial uses of mushroom compost, which, *not* a fertilizer, sequesters carbon and regenerates soil; research on harvesting mechanization for increased yield, quality, and employee augmentation and retention; and research on the potential value to the industry of crop insurance.

Too perishable to import or export overseas, fresh mushrooms are a national commodity and should be treasured. But we need help. Mushroom farmers are truly feeding America, and your support of research through the Farm Bill will strengthen this agricultural legacy for many years to come.

Indiana Farm Bureau®
Advocating for Agriculture

Statement from Indiana Farm Bureau

Testimony presented by Nick Carter
Owner, Mud Creek Farm; Co-Founder, Market Wagon; Member, Indiana Farm Bureau

United States Senate
Committee on Agriculture, Nutrition, and Forestry
Subcommittee on Food and Nutrition, Specialty Crops, Organics, and Research

Hearing on Horticulture Title: How the farm bill works for specialty crop producers

Washington, D.C.

June 7, 2023

Chairman Fetterman, Ranking Member Braun, and members of the Subcommittee, good morning and thank you for the opportunity to be here today to discuss how the Farm Bill works for specialty crop producers. My name is Nick Carter and I testify in front of you today as the owner of Mud Creek Farm, the Co-Founder of Market Wagon, and as a member of Indiana Farm Bureau. Because of the experience I've gained through these roles, I believe I can give a unique perspective on how the 2023 Farm Bill can provide vital resources to specialty crop producers.

Located within the City of Indianapolis, Mud Creek Farm is comprised of 20 acres that are home to 400 laying hens, a flock of lamb and goats – finishing 20 head per-year – a 1,600 square foot greenhouse and two acres of specialty crops. Our crops include a wide array of high-value consumer products including lettuce, spinach, tomatoes, cucumber, zucchini, green beans, peppers, sweet corn, and winter squash. Our sales are all direct-to-consumer, with the majority coming through an on-farm retail stand, and a small number of products being sold online via Market Wagon. The business currently sustains one full-time equivalent (FTE), with plans to scale to three FTEs in the next five years.

In 23 cities around the Midwest and South, Market Wagon operates fulfillment hubs that use proprietary logistics technology and practices to deliver food from over 1,500 small farmers just like Mud Creek Farm directly to consumers' doorsteps. The consumer experience is an e-commerce grocery service with an entirely unique supply chain comprised of small, diversified farms and food purveyors.

Key Challenges of Mud Creek Farm, and similar farms represented on Market Wagon:

1. Matching supply with demand
   As small scale growers, our specialty crop farms cannot meet the requirements to supply institutional buyers and outlets for downgraded products, which means the farm must find consumers for all of its highly perishable products as the crop is ready. These small farms employ various techniques such as succession planting, indeterminate crops, and season extenders (row covers, greenhouses, etc.) to diffuse supply over time.

2. Matching labor demand with labor supply
   Despite the diversification in product supply, the nature of the work is still heavily concentrated in the summer season. Seasonal labor is often relying on unskilled workers, whereas crop production in this diversified method requires a workforce capable of diverse activities. I need a labor force that can operate and troubleshoot small machinery, visually identify a fruit's readiness for picking, and administer basic care to small ruminant animals— all with minimal supervision and a high sensitivity to schedule and timing of activities. As a result, the industry desperately needs congressional action on immigration reform as it prioritizes long-term investment in mechanization and automation research.

3. Management of Capital
   Discussions often center around access to capital, but that's not the greatest problem. Most of the items required to scale even a small farm have lasting value, make great collateral, and are therefore bank financeable. The challenge is knowing where to deploy capital, and how to prevent over-leveraging such that debt service poses a risk of insolvency in the event of a bad season or crop. There are innumerable small implements – transplanters, mulch layers, manure spreaders – that could each create significant labor-saving and/or production improvements, but

they require capital. The challenge is further complicated when a farm diversifies—as Mud Creek Farm has—into a wide range of crops, as well as livestock. Add to the implement for crop production a list of livestock equipment such as trailers, chutes, barns, feeders, waterers, and the very breeding stock itself. Managing capital isn't a problem unique to small farms, but specialty crop producers face a different type of challenge due to the diversification of their operation.

2023 Farm bill Priorities:

I'd now like to turn to my time as a member of INFB, Indiana's largest agricultural grassroots organization representing farm families across all 92 counties. Nearly 270,000 members strong, our organization prides itself in being an advocate for Indiana agriculture, and, through Indiana Farm Bureau, I've had the opportunity to advocate for specialty crop producers by serving on INFB's Diversified Ag Policy Advisory Group. This group is made up of specialty crop producers from across the state tasked with helping craft state and federal policy that supports diversified growers.

At the state level, this group of specialty crop growers helped craft policy to further expand the options small, home-based vendors have to sell their products to local consumers. Ultimately, this policy priority turned into legislation that was signed into law by Gov. Eric Holcomb. Within the first year, we had six new vendors selling on Market Wagon as a direct result of this new legislation, my own farm included. However, resources for specialty crop grows can't just happen at the Statehouse. Congress must provide further resources for diversified specialty crop growers, and the 2023 Farm Bill provides the perfect opportunity to support these producers.

Crop Insurance

I support a robust crop insurance program, which should entail expansion of insured commodities to include specialty crops as well as enhancements to Whole Farm Revenue Protection (WFRP) insurance that provide a more appropriate level of affordable coverage and safety net, along with reducing the amount of paperwork required. As implemented, the current crop insurance programs are not feasible for diversified farms like Mud Creek Farm. Yield records on a per-acre basis are unattainable for an operation that harvests multiple successions in quantities of row-feet, not acres. Other requirements for establishing prices and costs to measure the loss are challenging when labor, inputs, and land costs are all fungible across a diverse set of crops and activities.

For these reasons, crop insurance alone is a small portion of the overall risk mitigation that enable small farmers to succeed. The diversification that I described in Mud Creek Farm is itself our greatest risk mitigation technique. If squash beetles diminish my cucurbit harvest, I can replant those rows with green beans. If lack of rain renders a sweet corn patch useless to harvest, I can enclose it with temporary fencing and graze off the stalks.

As the committee considers risk mitigation for small farms, the scope of solutions should consider programs that encourage diversification. The existing Environmental Quality Incentives Program (EQIP) grant program, for example, can be leveraged to accomplish not only conservation goals, but diversification of farm activities, or the installation of risk-mitigating assets such as irrigation. Other forms of capital resources such as forgivable loans and grants, targeted toward investments that diversify a farm's operations, would enable farms like ours to increase production without risk of loss.

Market Access

Programs such as the Local Food Promotion Program (LFPP) and Farm to School are useful and meaningful tools for specialty crop growers. Efforts to make the grants more accessible to small farmers, and less onerous to apply and manage, would extend the LFPP's effectiveness. Schools are the largest local institutions, embedded in the communities where diversified farms exist, with federal buying power. In Indiana, the General Assembly passed legislation to allow schools to purchase produce from local FFA chapters. Congress should consider ways to give more flexibility and incentives to local schools to purchase locally grown fruits and vegetables from local producers.

Senator Roger Marshall (R-KS) and Senator Peter Welch (D-VT) recently introduced a bill that would allow new ways for small producers and butchers to sell products across state lines. The Direct Interstate Retail Exemption for Certain Transaction Act, or DIRECT Act, is an important and long-overdue modernization of the FSIS code that removes a barrier for diversified farms such as Mud Creek Farm to sell direct to consumers. The legislation will provide more opportunities for small producers without compromising on food safety and actually expands traceability to avoid the spread of food borne illnesses.

Other priorities

Crop insurance options and market access are critical areas for specialty crop growers, but there are several other improvements that this farm bill could provide to specialty crop producers, including:

- Incorporating all types of domestic fruits and vegetables (fresh, frozen, canned and dried) into the Fresh Fruit and Vegetable Program providing an affordable option for increasing the variety available year-round for all and more market opportunities for producers. Priority must be given to fresh and locally grown product when available not withstanding price;
- Ensuring adequate funding for the specialty crop industry with emphasis on fundamental research, marketing and promotions, and pest management programs;
- The USDA giving more consideration to specialty crop growers when considering planting history for various programs;
- Defining "specialty crops" as any fruit, vegetable, nut or non-program crop grown for consumption and sales;
- Dedicated funding for specialty crop growers in working lands programs;
- USDA commodity purchases; and
- The fruit and vegetable industry developing a termed stopgap profit/loss assistance program to mitigate the impact of producer losses due to foreign imports.

Conclusion

Again, thank you for the opportunity to testify today. For all of our specialty crop growers and our industry sector partners, we appreciate the important work you do as representatives of our industry in Congress. I truly love working and raising my family on our small, diversified farm, tackling the challenges it presents, and enjoying the successes we achieve. I look forward to answering your questions and discussing how the 2023 Farm Bill can further support our specialty crop growers.

TESTIMONY of **Charles Wingard, Walter P. Rawl & Co**
On behalf of the International Fresh Produce Association

June 7, 2023

U.S Senate Committee on Agriculture, Nutrition, and Forestry

Subcommittee on Food and Nutrition, Specialty Crops, Organics, and Research
Hearing on
"How the Farm Bill Works for Specialty Crop Producers"

Thank you to the Chairs and Ranking Members for this opportunity. My name is Charles Wingard, Vice President of Field Operations, for Walter P. Rawl & Co headquartered in South Carolina. We grow multiple crops, including collards, kale, mustard & turnip greens, cilantro, parsley, and green onions in South Carolina, Florida, Pennsylvania, and Michigan.

Today, I am representing the International Fresh Produce Association, and I will also be highlighting our shared support for the work and recommendations of the Specialty Crop Farm Bill Alliance. I am proud to speak on behalf of American producers of fruits, vegetables, tree nuts, and horticultural producers who grow the healthiest, most vibrant products in the world. Domestically, specialty crops account for over 44% of the farmgate value for crops. According to a recent study, the fresh produce and floral industry alone provides 2.2 million jobs across all 50 states and contributes $120.6 billion to the labor income in the United States economy. These statistics highlight the importance of specialty crops and the need for focused attention and support in the upcoming Farm Bill.

Via the work of the Specialty Crop Farm Bill Alliance, I would like to highlight some key priorities that IFPA and I believe are critical to the success and growth of our sector. Let me begin with our opposition to any attempt to expand the definition of specialty crops beyond the existing definition outlined in the Specialty Crop Competitiveness Act of 2004. This definition includes fruits, vegetables, tree nuts, dried fruits, and nursery crops. Maintaining this definition is essential for consistency and ensuring that the unique needs of specialty crops are addressed. Now, on to my recommendations for the Farm Bill.

Crop Insurance and Safety Net

Crop insurance plays a crucial role in mitigating risks for producers. However, specialty crop operations are underrepresented in these programs. USDA must improve and prioritize data collection and analytics, and the evaluation of a risk management tools designed exclusively for specialty crop growers.

Specialty crop producers face unique challenges with the application of Adjusted Gross Income (AGI) limitations compared to other commodity crop producers for most Farm Bill programs. The current implementation of AGI limitations disproportionately prohibits specialty crop producers from participating in certain USDA programs in a meaningful way and potentially inhibits specialty crop producers from

participating in disaster programs. Although a means test may be appropriate for participation in many USDA programs, AGI is an ill-suited means test for specialty crop producers. USDA programs that require a means test for participation should be based on income derived from farming and be flexible enough to account for the variety of structures, accounting methods and other special considerations for specialty crop producers, not just their AGI. Further, conservation programs incentivize production practices to the broader benefit of society and should not be subject to any AGI limitations. If AGI continues to be utilized as a means test for specialty crop producers, it should revert to the 2002 Farm Bill model and used for the Coronavirus Food Assistance Program (CFAP). That policy being that if 75% of income is derived from farming, no AGI limitation should be applied.

Technical enhancements to programs such as the Tree Assistance Program, Whole Farm Crop Insurance Program, and Noninsured Crop Disaster Assistance Program are also needed to improve their accessibility, value and effectiveness. Greater outreach efforts, improved data collection, and fair pricing mechanisms would foster greater participation of specialty crop growers in these programs.

Conservation and Climate

Like other sectors of agriculture, conservation and climate change represent significant challenges for specialty crop producers. To tackle these issues effectively, we propose an increased emphasis on climate adaptation in conservation programs, along with expanding the activities covered by these programs to more than just carbon capture in soils. Additionally, we need more research, data collection, and agency engagement with our sector on climate change and its impact on specialty crops.

Reforms to enable more specialty crop producers to participate in conservation programs, should include considerations water availability and impacts on other resources. Most immediately, we urge Congress to amend adjusted gross income limits in conservation programs so that middle class specialty crop producers can access cost share funding.

Nutrition

Underconsumption of fruits and vegetables in the American diet is a tremendous, missed opportunity for health of our nation. Only one in ten Americans meets the recommended dietary guidelines, while three-quarters of the population are overweight or obese. Children and people living at lower income levels are most in need of dedicated resources for fruit and vegetable access for SNAP participants and the Fresh Fruit and Vegetable Program (FFVP) that has expanded to all states and territories due to its success and popularity. A USDA evaluation found that FFVP increases consumption among low-income students, helps reduce plate waste at school meals, and, most notably, can reduce obesity rates by three percent. The program is oversubscribed, with many more districts (all low-income) applying each year than funding made available. To remedy that, Congress should make FFVP automatically available to any elementary school that currently qualifies as low-income under the Community Eligibility Provision (CEP).

Reforming USDA procurement programs to include a wide range of specialty crops is another commonsense way Congress could promote healthy eating habits and combat nutrition-related health issues. Despite Buy American requirements, non-compliant imported products still reach American schools. While we recognize that noncompliance at the school level is often unintentional, violations hurt American

growers so Congress should strengthen and require USDA to enforce the Buy American requirements in USDA school meals programs. Further, Congress should specifically define that a U.S. product must be at least 25% greater in cost to qualify as having a "significantly higher cost" than a foreign product.

Research

Research and innovation are pivotal to the long-term sustainability and profitability of the specialty crop industry. I encourage you to consider sustained and expanded funding for the Specialty Crop Research Initiative (SCRI), IR-4, the Office of Pest Management Policy (OPMP), and increased resources for research focused on compliance with the Food Safety Modernization Act (FSMA).

SCRI addresses the critical needs of our industry by awarding grants that support research and extension that address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional, contained environment and organic production systems. Because the program is overprescribed and funding has not been increased in several cycles, the specialty crop sector asks Congress allocate an additional $50 million in annual mandatory spending to SCRI and should prioritize new innovations and technologies, research into plant breeding, genetics, genomics, crop management, and other methods to improve crop characteristics across scales of production and efforts to identify and address threats from pests and diseases.

Since the passage and implementation of FSMA, the produce industry has faced a wide variety of hurdles in complying with this statute, the accompanying regulations, and the obligations that they create. Technical assistance for producers as well as additional research into helping producers comply with FSMA is still needed. If properly funded, the Cooperative Extension Service is well positioned to help producers with their growing FSMA compliance obligations. Comparably, National Institute on Food and Agriculture (NIFA) should be given additional funding to conduct produce safety research focused on helping producers comply with FSMA.

The IR-4 Project serves a critical role for agriculture by facilitating the availability of needed pest management solutions for specialty crops. The private crop protection industry often focuses its product development efforts and resources on large acreage, major row crops where potential sales are significant. As a result, specialty crops are left with few tools for effectively managing pests and the tools made available to specialty crops can lag as to the latest advances in crop protection. The IR-4 project aims to combat these market inefficiencies by advancing crop protection product registrations for the specialty crop sector. Increased IR-4 funding is warranted because the need for the Project's services continues to increase while government funding has been stagnant for 10 years. The result is, over the past three years, the IR-4 Project was forced to reduce its primary research efforts by almost 25 percent. IR-4 currently does not have the resources to adequately address pest management voids for specialty crops. At present, there are more than 200 existing pest management voids, and each year IR-4 receives an additional 100+ new research requests. Based on current funding, IR-4 can only address about 50 such requests per year. IR-4 also performs crop protection work on non-food environmental horticultural crops and florals. This industry has no major support for crop protection activities from other sources and is fully dependent on IR-4 for all new approvals. This segment of IR-4 has been under-resourced long-term and is in desperate need of new funds to address pest management voids. For these many reasons, Congress should increase federal mandatory funding for the IR-4 Project to $50 million annually.

OPMP is invaluable as a reviewer of EPA-proposed and final pesticide regulations and guidance, as well as for Endangered Species Act (ESA) consultations with NOAA Fisheries and the Fish and Wildlife Service. Despite the small size of the office, OPMP has been very substantively involved in nearly all significant EPA and ESA pesticide regulatory actions that may affect the agricultural community, including specialty crops. The specialty crop industry believes that this role should be supported and expanded to meet the challenges of future workload and asks that Congress allocate an additional $5 million annually in mandatory funds for OPMP.

And, on the topic of crop protection, I am very troubled about lack of available alternatives for specialty crops. Specifically, our ability to produce our green onion crop – one of the largest in the nation – is at real risk due to EPA's recent announced intention to revoke the registration of a one of the few, key herbicides, DCPA, available for use on onions. We believe that there may be options, but none are labeled for use so our ability to produce green onions is about to be severely hindered. To effectively serve the specialty crop industry and American consumers, we need mechanisms in place that can fast track research and approval of crop protection tools. Both USDA's Office of Pesticide Management Policy (OPMP) and the IR4 Project are key voices for specialty crop producers working with EPA on these issues and I implore you to elevate their mission and ensure their stable and robust funding.

Specialty Crop Block Grants

As you may know, the Specialty Crop Block Grant Program has been instrumental in supporting specialty crop producers. Currently, these grants are funding important projects in many states including at my alma mater, Clemson University, and at Penn State, Michigan State, Cornell and the University of Georgia to name a few. We recommend increasing the mandatory funding for this program to $100 million annually.

Organics

In 2019, 58% of organic sales came from crops, led by vegetables and fruits (including berries and tree nuts) and represents $9 billion in sales. Organic production is growing in importance for specialty crops and has gained increasing participation throughout the supply chain. The National Organic Program (NOP) should be required to consult with EPA and FDA on all regulatory decisions and include relevant agency information or feedback provided with all Federal Register notices. This should include the public health implications of eliminating any sanitizers from the National List of Allowed and Prohibited Substances. As well, the number and makeup of National Organics Standards Board (NSOB) seats should be expanded, to include more scientific expertise, better account for differing commodity needs and production innovations, and more effectively respond to the growing consumer demand for organic products.

Trade

American growers like me adhere to strict regulatory requirements and private standards designed to protect the environment, ensure safe food, and safeguard workers. Maintaining these high standards is extremely costly, plus American growers pay some of the highest labor costs in the world. My investment is undermined when our foreign competitors do not have the same burdens thus giving them significantly lower costs of production. When Congress reauthorizes the upcoming Farm Bill, the trade title must

recognize this imbalance and provide non-distorting support in the areas of market development, research, innovation, and technology. This support should assist specialty crop producers in maintaining competitiveness, offsetting the cost of production, and ensuring the stable, robust domestic food production.

Through the Market Access Program (MAP), USDA-FAS partners with U.S. agricultural trade associations, cooperatives, state regional trade groups and small businesses to share the costs of overseas marketing and promotional activities that help build commercial export markets for U.S. agricultural products and commodities. MAP reaches virtually every corner of the globe, helping build markets for a wide variety of U.S. farm and food products. USDA-FAS provides cost-share assistance to eligible U.S. organizations for activities such as consumer advertising, public relations, point-of-sale demonstrations, participation in trade fairs and exhibits, market research, and technical assistance. When MAP funds are used for generic marketing and promotion, participants must contribute a minimum 10 percent match. For the promotion of branded products, a dollar-for-dollar match is required. Despite representing over 44% of the domestic farm gate value for crops, specialty crops receive only 25% - 30% of MAP funding allocated with the remaining 70% - 75% going to non-specialty crops. Despite that imbalance, each year more than 37 U.S. specialty crop organizations receive more than $50 million of the $200 million currently available from this oversubscribed market development program. MAP has been at the same funding level since 2006, and since that time, fully one-third of MAP funding has been lost to sequestration and inflationary pressures. Compounding the problem is the loss of U.S. market share due to retaliatory tariffs, port congestion, and other supply chain dysfunction. To alleviate these problems, MAP funding should be increased from $200 million to $400 million in the next Farm Bill.

The Technical Assistance to Specialty Crops program (TASC) funds projects that address sanitary, phytosanitary, and technical barriers that prohibit or threaten the export of U.S. specialty crops. Eligible crops include all cultivated plants and their products produced in the United States except wheat, feed grains, oilseeds, cotton, rice, peanuts, sugar, and tobacco. TASC benefits an entire industry/sector rather than a specific company or brand. U.S. non-profit, for-profit, and government entities are eligible to apply. This program should be continued at $9 million annually and it is important that the funds are used exclusively for specialty crops as originally defined in the Specialty Crop Competitiveness Act of 2004.

The International Maximum Residue Limits (MRL) Database contains maximum acceptable levels of pesticides and veterinary drugs in food and agricultural products in the United States, as well as 70 other countries, the European Union, and the Codex Alimentarius Commission. Specifically, the database includes more than 300 fruit, vegetable and nut commodities, as well as more than 270 pesticides approved for use on those commodities by the U.S. EPA. MRL database funding must be maintained due to its critical role in maintaining trade markets for all commodities.

Thank you again for the opportunity to share my thoughts and these recommendations that are crucial to the growth, sustainability, and competitiveness of the specialty crop industry and my operation. I ask that you consider these priorities and allocate the necessary resources to support the diverse needs of our sector so that U.S. growers can prosper and share that health and prosperity with American consumers and the economy.

Testimony of Dr. Margaret Leigh Worthington
Associate Professor, Horticulture
University of Arkansas System Division of Agriculture
on behalf of the American Seed Trade Association

Hearing of the U.S. Senate Subcommittee on Food and Nutrition, Specialty Crops, Organics and Research:
HORTICULTURE TITLE: HOW THE FARM BILL WORKS FOR SPECIALTY CROP PRODUCERS
June 7, 2023

Good morning, Chairman Fetterman, Ranking Member Braun, Chairwoman Stabenow, Ranking Member Boozman, and Members of the Subcommittee. I'm Dr. Margaret Leigh Worthington, Associate Professor of Horticulture and Director of the Fruit Breeding Program at the University of Arkansas System Division of Agriculture in Fayetteville. I'm pleased to be here today to offer testimony on the Horticulture Title of the Farm Bill, specifically as it relates to specialty crops.

I'm speaking today on behalf of the American Seed Trade Association (ASTA), which represents nearly 700 member companies involved in seed production and distribution, plant breeding, seed treatment and related industries in North America. ASTA's members include companies of all sizes and sectors, representing every crop type -- from vegetable and flower, to row crop, to environment and conservation seed – and all production types, from organic to biotech.

The U.S. has a long history and tradition of entrepreneurship, founded on successful systems of technology transfer from the public sector to the private sector. Especially true for low acreage crops, public and private partnerships are essential in deploying the strengths of both sectors to bring improved varieties to the marketplace.

THE NEED FOR INNOVATION

Modern Plant Breeding

Plant breeding dates back thousands of years to when people first domesticated wild plants. As the years have gone by, plant scientists' understanding of agriculture has continued to progress. Building on the foundational principles that have been used for generations, new and evolving plant breeding innovations are allowing us to more efficiently and sustainably address the real and pressing challenges facing food and agriculture production. The continuous advancement in the understanding of plant genomes provides new opportunities to meet these challenges in a safe and sustainable way, both today and in the future.

Universities and companies alike are utilizing gene editing tools in research projects across all plant species, for a range of needed applications benefiting farmers, consumers, and the environment – from disease resistance and drought tolerance, to added nutritional benefits, better taste, and food safety. These crops are critical to complement staple crops in providing essential nutrition and health to the U.S. population. Importantly, this research includes critical applications in small acreage, high-value specialty crops, which face unique challenges and have not previously been able to fully utilize the potential of the latest breeding tools due to the high cost and associated regulatory burdens. It is well documented that regulatory hurdles have contributed to limiting GM technology to only a few crops affordable by only multinationals, denying specialty crops an essential tool to meet global challenges (Miller et al. 2010). Unfortunately, investment in gene editing tools and trait targets in the specialty crop sector is similarly limited, due to uncertain regulatory outcomes in the U.S. and global inconsistency of regulatory policy.

I direct active cultivar development programs in blackberries, peaches, grapes, and muscadine grapes at the University of Arkansas System Division of Agriculture. When I first started in my position in 2016, it was hard to envision how we would be able to make use of gene editing given our lack of understanding of fundamental genetics in these specialty crops. However, advances in genomics in the past seven years have enabled the discovery of genes associated with disease resistance, flowering time, and consumer quality traits, even in relatively low-acreage crops like blackberries and muscadine grapes.

For example, elite wine and table grape varieties are susceptible to many diseases. In a typical year, growers can be expected to make 10-15 fungicide applications. This heavy spray schedule causes environmental impacts and financial burdens for growers. There are 45 known disease-resistance loci within the sexually compatible gene pool for grapes, many of which were discovered in part due to funding from the USDA-NIFA Specialty Crops Research Initiative. The process of backcrossing these resistance loci from wild relatives to elite germplasm is incredibly time-consuming, especially considering the long generation time in many perennial specialty crops. Traditionally, it has taken 20-80 years from making an initial cross to release of a new grape cultivar with a disease resistance locus. And, unfortunately, the market for new disease-resistant wine grape cultivars is limited as many consumers demand traditional wine grape varietals like Cabernet Sauvignon or Pinot Noir. Gene editing could be used to develop a cultivar that is identical to Cabernet Sauvignon with stacked resistance loci for powdery and downy mildew resistance in a fraction of the time of traditional breeding methods. This technology would enable consumers to enjoy the same wines that they love, while allowing growers to drastically reduce the number of fungicide applications they make each year.

Appropriate policies can incentivize investments in plant breeding innovation, such as gene editing, creating new jobs and market opportunities, and boosting resiliency and sustainability along the entire food value chain. In order for the tremendous benefits of these innovations and others like them to become widely available, the U.S. government must create an innovation-enabling environment that includes sustained and substantial investment in public-sector agriculture research; fair, strong, and enforceable protection for intellectual property

rights to incentivize entrepreneurship and public-private technology transfer; science-based, predictable and transparent regulatory policy in the U.S.; and regulatory policy alignment around the world. While Farm Bill reauthorization plays a key role, the utility of new innovations in plant breeding will be limited without effective policy and regulatory systems in place to allow for and foster continuing innovations such as these.

Impediments to Access

Many countries have recently put forth policies that exempt or exclude plants produced through gene editing from additional regulations with clear efficient implementation of the policies. However, differences in key elements of these exemptions or exclusions mean the overall utility for plant breeding innovation varies greatly. For example, EPA's final rule—published less than two weeks ago—on plant-incorporated protectants (PIPs), is causing a great deal of concern in the plant breeding community. This is in large part due to EPA's focus on the process used to create the product, rather than the product itself.

EPA's updated policy is intended to address new and evolving breeding methods like gene editing. The goal is to establish new "derived from sexually compatible plant"-based exemptions for certain PIPs that were introduced using the tools such as gene editing that result in plant characteristic(s) that could have been created using conventional breeding. However, contrary to EPA's approach to similar products created using conventional breeding, the rule adds bureaucratic layers of red tape for products developed using gene editing -- even though the agency views those products as posing no greater risk than those produced through conventional breeding; keep in mind that conventional breeding also includes plants created by making mutations much more imprecisely, including using radiation and chemical-induced mutagenesis.

Furthermore, the exemptions represent a narrow set of sexually compatible derived PIPs that are possible using gene editing. For this narrow set of exemptions, EPA's rule takes a highly restrictive and precautionary approach, particularly compared to important trading partners and agricultural competitors such as Canada, Argentina, and Brazil. In doing so, EPA imposes burdensome data requirements on developers who must undertake a mandatory premarket process to confirm "eligibility" for the exemption. "Exempt" PIPs are also subject to a recordkeeping requirement. None of these requirements are imposed on similar conventionally-bred PIPs.

A recent European Commission study found that new breeding techniques afford, "an opportunity for small and medium enterprises (SMEs) to develop minor, niche or orphan crops, and special traits in plants, in response to local needs." I agree, and want to see the full benefits of innovation harnessed across all crops and all sectors.

The transactional costs of compliance are very likely to result in higher prices for the end-product than otherwise would have occurred, thus adding a premium for developers, farmers, and ultimately consumers. Such a premium could serve as a countervailing force to uptake, and

in turn, impede the very-real societal benefits these tools can deliver. This is particularly true for SMEs, which are far less able than larger companies might be, to bear the costs, extended process, and potential market delays. In other words, process-based differential regulatory systems will have a negative effect on the democratization of the technology. The higher the cost or barrier, the greater the market concentration we can expect — the tools will be limited to large companies, in a few large-acre crops, and focused on a few large-acre traits.

I recently co-authored a paper in Nature Plants that demonstrated how various breeding methods, including gene editing, can lead to the same seedless grape phenotype (Jenkins et al. 2023). The same can be said for pest-resistant phenotypes. In essence, precision tools like gene editing can allow us to reach the same outcome as could be achieved through more traditional breeding methods, or that could have happened in nature over time through natural mutation, but in a much more targeted and efficient way. This is the beauty of innovation: we are constantly learning, improving, and finding new and better ways of doing things – in plant breeding, just like in all areas of society. This is critical as we're up against the clock to address the very real and rapidly evolving threats facing the future of a secure and sustainable food and agriculture system. We can't rely on the tools of yesterday to address the challenges of tomorrow.

To quote the 1992 Update to the U.S. Coordinated Framework, Federal oversight "focuses on the characteristics of the biotechnology product and the environment into which it is being introduced, not the process by which the product is created." By focusing on the process rather than the product, EPA's recent rule runs counter to this intent. Here is an example of how the agency's policy of differential treatment would play out in the real world:

- A developer of a disease-resistant grape variety generated through conventional breeding will have no requirements from EPA prior to putting this product into commerce.
- The same developer could then use a more efficient method of breeding, like gene editing, to generate the exact same disease resistance characteristic in another variety of grapes. The PIP is the same, however, the developer will have to make a submission to EPA, providing data to justify that the variety is eligible for the "PIPs created through genetic engineering from a sexually compatible plant" exemption. The developer will have to wait for EPA to confirm their justification and maintain records for 5 years.

Precision breeding tools like gene editing are desperately needed to support the production of more resilient plants, that can grow, for example, with less water, pesticides and other inputs, and result in fruits and vegetables that stay fresher longer. These are all important characteristics needed by U.S. farmers to address sustainable agriculture production and food security.

At the domestic level, the EPA rule runs counter to interagency alignment under the U.S. Coordinated Framework, at odds with regulatory streamlining enabled and envisioned under USDA's recent revisions to its Part 340 regulations. Internationally, the rule is out of step with a

growing list of international regulatory authorities that have used a science-based rationale to streamline their policies to support the commercialization of innovative products. Historically, U.S. leadership in innovation-enabling regulatory frameworks has attracted investment and entrepreneurship to our country, ensuring our farmers have access to the latest improved varieties. However, in this area, the U.S. is now at risk of losing out; and U.S. farmers could lag behind in access to the latest improved varieties, as compared to their counterparts in other areas of the world. Now is not the time to impose barriers to U.S. innovation, especially in specialty crops; but unfortunately, that's exactly what EPA's new policy has done. Instead, the U.S. should be a global leader in science-based policies that drive innovation and enable the benefits of gene editing to be realized around the entire world.

The bottom line is that these added and unnecessary regulatory burdens will increase the cost and time of getting new improved varieties in the hands of our farmers. Many public sector and SMEs, especially those working in small acreage crops, will not be able to afford the additional cost. All of this will force additional consolidation in the industry; investments in future innovation will be limited to a handful of crops and a handful of companies.

Innovative Crop Protection and Biostimulant Tools

Seed innovation is of course not limited to plant breeding. Modern tools like precision seed treatments help protect the developing seed during its most vulnerable time – at planting and germination. Their highly targeted approach means less impact on the surrounding environment, and allows farmers to increase productivity while using less – that's a win for a farmer's bottom line and a win for the environment.

Biostimulants are another emerging and promising tool to support a more sustainable agricultural and food system, for example, to help mitigate or reduce GHG emissions, conserve and replenish soil health, and improve water quality. The last Farm Bill recognized the importance of biostimulants and directed USDA to complete a report identifying recommendations, including potential definitions for plant biostimulants. The final report was a valuable step; however, until a clear definition is established, the regulatory path to market is unclear.

To fully realize the value of these tools, it's important that the Farm Bill sets a clear, federal definition, as called for in the Plant Biostimulant Act recently introduced in the Senate and the House. Thank you specifically to Senator Braun for leading, and to Senator Grassley for cosponsoring this key legislation. This would create needed certainty to ensure these innovative tools are broadly available to producers.

AGRICULTURAL RESEARCH

A safe and secure agriculture and food production system begins with high performing varieties. Better seed and better plants are generated through innovation; and innovation is a direct result of strong investments in agricultural research. The U.S. seed and plant breeding

community relies on the support of Farm Bill funding and programs to ensure continued leadership as the provider of the best seed to the world. U.S. breeding and seed companies, public and private scientists, and U.S. producers will continue to innovate to improve crops and production practices, thanks to ongoing and future cutting-edge research. Strong investments in research from discovery through development lead to better varieties, which means better outcomes for farmers, consumers, and the environment, in the short and long term.

The University of Arkansas System Division of Agriculture Fruit Breeding Program has benefitted tremendously from Farm Bill funding since its inception in 1964. We have received support from Hatch Act funding and competitive USDA-NIFA programs including Agriculture and Food Research Initiative (AFRI) and Specialty Crops Research Initiative (SCRI) that have supported many graduate students and helped us to train the next generation of public and private sector specialty crop breeders and allowed us to develop innovative new products like thornless blackberries that fruit on first-year canes and highly-flavored table grapes. I want to especially thank this Committee for their efforts to reinstate the SCRI match waiver by working with the Appropriations Committees over the last few years. I hope that the next Farm Bill will include a long-term solution.

We have also benefitted indirectly from Farm Bill funding to our valued colleagues and collaborators at the USDA Agricultural Research Service, the National Clean Plant Network (NCPN), and the National Plant Germplasm System (NPGS). Because of the support we received from Farm Bill Funding, we have publicly released 66 fruit varieties that are now grown in Arkansas and around the world on six continents. These innovative new varieties have generated profits for growers, nurseries, and shippers/marketers and provided healthful and exciting options in the produce aisle for consumers across the U.S.

Agriculture research is the foundation for advancing U.S. innovation in the specialty crop sector, and ensuring a strong return on investment in public and private ag research dollars. Robust funding for primary USDA research is essential, and desperately needed to continue supporting the work of programs like the NPGS, NCPN, and SCRI.

CONCLUSION

Thank you, again, for the opportunity to provide testimony on behalf of the seed industry and the plant breeding community. We look forward to serving as a resource as important discussions continue related to the Farm Bill and breeding and seed innovation in general. I'll be happy to answer any questions you have.

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June 5, 2023

Senator John Fetterman
Chairman
Subcommittee on Food and Nutrition, Specialty Crops, Organics, and Research
United States Senate
Committee on Agriculture, Nutrition, and Forestry
Washington DC, 20510-6000

Thank you Senator Fetterman for the invitation,

Thank you also to Ranking Member Senator Braun, distinguished Committee Members, and the staff who coordinate these efforts.

It is an honor to report to you on how the Farm Bill can better serve organic specialty crop producers, especially through the certification process. I am proud to represent Pennsylvania, a state that enjoys support for organic from the highest levels, is third in the nation in organic sales, and is the only state with our own Farm Bill. **It is my deepest hope that this is the beginning of many conversations we will have about organic farming and the good these farmers are bringing to all of us.**

This dedicated group of specialty crop farmers and operations, and the research and infrastructure communities that serve them, bear a great regulatory burden for voluntarily choosing to utilize ecologically sound practices; but their work serves as a lesson for all of us: they function with, and as part, of nature. It is not an overstatement to say that their work is one of few things we can depend on to ensure the health and future of humanity, as we all continue to experience the increasing effects of excessive extraction from nature, for the economic benefits of a few.

These farmers know that fundamentally, you cannot have unlimited growth in a system with finite resources without creating harm. Day in and day out they do the hard work it takes to have a food supply that supports healthy people, a healthy business, and a healthy community. To invest in their work and the cost of organic certification is to invest in all of our futures. They provide: the solid foundation of a resilient supply chain, economic regrowth in support of community well-being, and services that can ease the many cost burdens of healthcare, energy, and environmental remediation. **We get their feedback everyday, and they need more support.**

The Farm Bill can better serve these organic producers through additional funding and making current programs permanently funded. A crucial step is to unify and streamline programs to help producers find, understand, and follow through with accessing them without redundant paperwork requirements. Requests for additional program support fall into three categories:

1. Health Benefits - Organic practices bring many health benefits through: producing more nutritious food, bringing equitable access to production and procurement, limiting chemical and pesticide exposure and drift, focusing on farmworker health and safety, and creating healthier communities through ecosystem services. Achieving them requires:
    1. Transition incentives for small farm certification, including direct payments to farmers, which provide producers with the tools and resources necessary to choose and implement the farm practices, systems, and business models that work best for them and the land they farm. What is helpful can vary considerably, even in microclimate within a county.

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2. More funding for NOP to work with certifiers, making the certification process more uniform and including automatic access to programs for farmers.
3. More funding for research that will encourage land grant universities to take on this work and compete with the funding from chemical and pharmaceutical companies. Benefits of organic research go beyond organic management, and lessons learned can be used by all types of producers to develop more ecologically and economically sound operations.
4. Making funds for the TOPP Regional Centers permanent and coordinating the OTI efforts with the newly announced Regional Food Centers, streamlining delivery of technical assistance, training, and market and workforce development.

2. Economic Benefits - The Organic Hot Spot research from the Organic Trade Association and Penn State shows us that organic farming does not as a rule occur *in wealthy communities*, but it *creates more wealth in communities*. To support re-growth of these local strong communities, organic farmers need:
    a. Changes to Crop insurance.
    b. Equitable access to land for beginning and BIPOC farmers, and therefore production and distribution of food.
    c. New and better connected infrastructure, including organic processing and distribution facilities, and coordinated market development.
    d. Coordination and access to emerging markets: organic fiber, including hemp, need attention and support.

3. Ecosystem Services - Soils farmed organically better withstand both droughts and excessive rain events. Organic seeds, that are developed for use without additional inputs and for use in microclimates, offer resilience in the food system in the face of a changing climate. Healthy soils and cover cropping plans provide food for pollinators, and they sequester and store carbon in far superior amounts than any experimental carbon capture technology.
    a. We need recognition and compensation for the ecosystem services these producers provide, including automatic qualification of Certified Organic operations for any 'climate smart' benefits.
    b. The practices of indigenous communities are the original climate smart practices, and we should also make every possible effort to fund and connect the work of these underserved communities with our efforts. We have much to learn from them.

The world currently produces enough food to feed the population one and a half times over, so why are people still starving and why is our healthcare becoming more burdensome? It is because we are *overinvesting* in a food system that continues to degrade the health of people and the planet, and *underinvesting* in proven ways we know can regenerate a food system for the good of all of us. The funding coming into the organic community of late shows that those in Washington know what to do to shift to a healthier food system, but we need to redirect **much more** of the funding in the Farm Bill to do those things.

The USDA Certified Organic market, once seen as a niche or fad market, now represents $67.6 billion in annual sales, and it continues to grow year over year. Demand for organic products continues to grow while domestic production has not kept pace, resulting in consumers purchasing more and more imported organic products. To

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increase domestic organic production, intentional investment into actionable research for organic producers is essential.

What really sets the organic industry apart is the economic system change it represents. As the Organic Hot Spot studies have shown, the organic industry does not take root in wealthy communities, but creates them in a variety of compounding ways. Organic inputs and materials generally come from local and regional sources, keeping dollars invested in rural economies rather than extracting and shipping them off to international corporate headquarters. Organic agriculture can help revitalize landscapes through working with natural processes, resulting in a variety of ecosystem services that build a resilient landscape. Put simply, organic agriculture is a proven system of management that not only brings economic gains to an area, but ecological health improvements as well. Positive feedback loops for property values, quality of life, health, and jobs are all created.

Organic certification costs are only going to go up as the sector grows and the need for oversight increases with it. When we attempt to make organic food 'cheaper', we are approaching the problem from the wrong direction. We must recognize the true cost of healthy food production, as well as the many externalized costs of conventional production practices, and invest accordingly via the Farm Bill. Investing in organic research programs at the Agricultural Research Service and National Institute for Food and Agriculture will help farmers comply with organic regulations and thrive in the growing organic marketplace. The research shows this investment results in healthier people, more resilient local economies, sustainable job creation, and stronger communities.

In conclusion, the organic specialty crop community has an outsized regulatory burden for doing right by us all. **They also have seemingly endless reserves of strength to accomplish the most sacred of tasks: figuring out how we can better nourish one another.**

Specific Program Requests for the 2023 Farm Bill:

Organic Research and Extension Initiative (OREI) - This program received mandatory funding in the 2018 Farm Bill. Research is a critical tool to help farmers tackle the production challenges they are facing in a way that adheres to the organic requirements. We can provide even more tools to help farmers further combat these challenges by increasing OREI funding to $100 million annually in the 2023 Farm Bill

Specialty Crop Research Initiative - Increases in funding are needed, including sharing the outcomes with venues such as NRCS and extension for technical assistance and support. One important example of how this can help organic specialty crop producers is through learning how to combat invasive species and pests through cultivar testing (research through Penn State).

Certification Cost Share program - This is a critical tool, especially for transitioning and beginning farmers, currently up to 75% or $750 of an organic producer's certification costs. The 2023 Farm Bill can further incentivize the entry of new organic producers, including historically underserved and socially disadvantaged producers, by increasing the maximum of $750 to $1,500 per certification scope and taking concrete steps to streamline and simplify the reimbursement and application process.

Crop insurance - While there were improvements made to programs that support crop insurance for organic producers in the 2018 Farm Bill, such as fully funding the Organic Data Collection program, there is still room for improvement as crop insurance continues to not fit the work of a lot of organic producers, especially specialty crop growers. There are several ways the 2023 Farm Bill can seek to make crop insurance an actual workable resource for organic specialty crop grower:

- Most importantly, adapt existing USDA risk management tools authorized by the Farm Bill to ensure that they meet the unique needs of the organic sector, including during the time of transition to organic.

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- Increase mandatory funding for the Organic Data Initiative (ODI) to $10 million over the life of the Farm Bill and authorizing up to $5 million annually for appropriations.
- Direct USDA to collect comprehensive market and data information on the organic sector by integrating data collection into routine USDA surveys and segmenting organic data in reporting results to the public.

Transition to Organic Partnership Program (TOPP) - PCO is honored to lead the Northeast/Mid-Atlantic Region of TOPP, which is part of the USDA's Organic Transition Initiative (OTI). We are actively working with regional leads across the US as well as partners in our region to create a network of support for organic producers, providing technical assistance, mentorship, and other services to ease the transition to organic and the ongoing certification process. Codifying and providing continued funding for key elements of the Organic Transition Initiative in the 2023 Farm Bill ensures this comprehensive effort will continue. Organic and transitional commodity purchases for USDA procurement programs would be historic.

Organic Market Development Grant Program - OTI also includes funding to increase market development and infrastructure support through the Organic Market Development Grant Program. The organic industry is challenged with both scale and geo-spatial limitations. Getting the right sized processing at the right location is currently hindering real growth opportunities. In order to see domestic growth and market expansion, the next farm bill should codify this program, which is fundamentally an organic infrastructure initiative. This investment addresses supply chain gaps in moving organic farm gate commodities up the value chain. Organic infrastructure grant resources target new and existing organic-focused businesses that are committed to the processing, storage, and distribution of organic food and goods. Priority should be given to market-focused efforts that:

- Demonstrate longevity in supply commitments with organic producers.
- Leverage private capital and/or equal investment in matching resources.

Organic Transition Initiative - When combined, the suite of OTI funding mobilizes the organic community across the nation to make sure there is demonstrated market need and the infrastructure ready to support it, sets organic producers up for success, and ensures a resilient organic supply chain. The current funding is due to expire after five years. Codifying and providing continued funding for key elements of the Organic Transition Initiative in the 2023 Farm Bill ensures this comprehensive effort will continue. This programming allows the organic community to leverage what is perhaps its greatest strength, collaboration for shared success. USDA should continue to facilitate these community building programs.

Local Agriculture Market Program (LAMP), Value-Added Producer Grant Program (VAPG) and Specialty Crop Block Grant programs - Organic specialty crop producers in particular utilize these programs, and increasing funding for all of them will create more equitable funding pools for organic. A percent based carve out for qualifying organic proposals can further enhance the utilization of these programs by organic specialty crop producers.

Organic Data and Market Initiative - Industry is calling on the USDA to collect more meaningful data that is publicly available and can inform smart policy and business decisions for the growing organic market. Organic producers are a boon to local and regional economics; now that the organic market has matured and developed into a long-standing and trusted market, having a detailed financial analysis of those economic benefits quantified by ERS is important to understand how far public dollars go when supporting organic agriculture.

Western PA Organic Specialty Crop Farmer Feedback on Programs:

1. Research and easy access to it is essential for continuing to be successful. Saves time and costs to help learn best practices without trial and error. Faster track for expansion and growth.

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June 5, 2023

2. Crop insurance for organic doesn't fit into what we do, so we don't use it.
3. Please continue the cost share program - it is easy to access and very helpful.
4. EQIP is helpful for a wide range of infrastructure support any farm can find useful.
5. VAPG are helpful for developing new revenue streams and diversifying the operation.

I look forward to any opportunity to talk further with your offices as we address these issues, which are essential to solve for healthy people and communities in the United States. We must work together on the continuing challenges of building a more resilient, equitable, and regenerative food system in the face of increasingly extreme weather events and other potential supply chain interruptions.

Thank you for your time in considering the benefits and needs of the organic community in development of the 2023 Farm Bill.

In service,

Diana L. Kobus
Executive Director

PCO is a member of the Organic Trade Association (OTA), and we would like to recognize OTA, the Organic Farming Research Foundation, and a handful of colleagues who reached out with support for developing this testimony. We encourage you to contact them for more information on the policies they are currently focused on in support of organic agriculture producers in the 2023 Farm Bill.

We would also like to thank the organic farmers we serve for the work they do to nourish all of us, particularly Randy Morris of Morris Farm and Jodi Danyo of Cherry Valley Organics for their support and feedback on Farm Bill programs.

QUESTIONS AND ANSWERS

JUNE 7, 2023

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Subcommittee on Food and Nutrition, Specialty Crops, Organics, and Research
Horticulture Title: How the Farm Bill Works for Specialty Crop Producers
June 7, 2023
Questions for the Record
Mr. Chris Alonzo

Senator John Fetterman

1. I want to give you more opportunity to answer my question about risk coverage—and specifically insurance—for mushroom production. With my limited time, I appreciate you having kept your answer brief, but know how important this issue is to your industry. As we consider this Farm Bill and crop insurance, what else would you like us to know about the unique risks associated with mushroom production?

- Mushrooms **cannot be grown hydroponically** or in other horticultural media produce by other controlled environment agriculture industries.
- Two pests are found **only** in mushroom houses: the **mushroom phorid fly and mushroom sciarid flies. These carry fungal pathogens that destroy whole crops.** The phorids are thriving in the warmer, wetter temperatures we are seeing with climate change—so what winter used to kill off is just adding to the exponential breeding and destruction of our crops.
- Mushrooms have unique pesticide, fungal and viral threats that only fungi are vulnerable to and that destroy entire crops. Without IR-4, for example, we wouldn't even have access to research on organic solutions to these issues, since our sensitive product can't tolerate much use of things like pesticides and fungicides or make much profit for the companies that produce them—so **we don't have the level of crop protection tools like others.**
- Mushrooms grow in growing media made specifically for each strain of mushrooms: browns, whites, portabellas, oysters, maitake, lion's mane, etc. **Mushroom growing media (mushroom compost) is produced in large part in the outdoors**, so this part of a mushroom farm operation is **especially vulnerable to excess rainfalls and droughts**. Recycled ag byproducts from poultry litter to corn stover to hay and wheat byproducts are combined with other ingredients to create the biological process needed to produce media that mushrooms like. **So any threat to any of the crops used for mushroom compost is a threat to a mushroom crop.**
- Mushrooms grow in the dark at a temperature of about 58 degrees—which is more and more challenging in times of extreme heat and extreme cold due to climate change. They must be grown precisely at all times—they **ARE** precision ag. But that precision means **one thing off and the crop can be lost.**

2. What would crop insurance for mushroom producers need to cover?

What makes mushrooms unique--its specific mushroom compost, growing conditions required year round, and mushroom-only pests, pathogens and viruses—would need to be identified as costs to produce the mushroom. Climate change causing year-round warmer conditions—drought in the west and catastrophic storms in the east, are causing crop failures: mushroom compost's 30 ag byproduct ingredients come from fields and farms across the country impacted by weather events; the HVAC requirements year round and night and day are vulnerable to extreme weather; and fighting mushroom pests, pathogens and viruses is no longer helped in the east by a strong winter kill off. Mushroom farming is the very definition of precision agriculture, but also makes the crop especially vulnerable to losses, so a mushroom crop insurance policy could really help this national treasure—that is too perishable to import or export overseas—survive.

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Questions for the Record
Dr. Margaret Leigh Worthington

Senator Amy Klobuchar

1. One of the biggest ways the Farm Bill supports specialty crop growers is through Specialty Crop Block Grants for research and development. Producers and research institutions in Minnesota, including the University of Minnesota, have used the program to fund a variety of projects, including the creation of the Honeycrisp apple, improving disease detection and winter hardiness, and expanding access to local and regional markets.

    a. How does the Specialty Crop Block Grant Program support agriculture research institutions improve the competitiveness of specialty crops and strengthen connections between producers and consumers?

Farm Bill specialty crop programs including the Specialty Crop Block Grant Program (SCBGP) and the Specialty Crop Research Initiative (SCRI) are critical in funding research, development, marketing, extension, and training in the specialty crop sector. The SCBGP was created to provide greater federal assistance to specialty crop producers by providing grants to state departments of agriculture to enhance the competitiveness of those crops. These funds help support a wide range of activities in the service of growers and consumers.

SCBGP funding expands the regional and national marketability of specialty crops that may only be grown in one or two states. This program also supports industry and academic research tailored to state and regionally specific challenges. The SCBGP offers an opportunity for state and regional grower organization, their State Departments of Agriculture, and Universities to collaborate to improve production practices, support crop protection, and connect specialty crop growers to consumers. Importantly, the program is stakeholder driven and demonstrates economic impact and a direct connection to growers, processors, and consumers.

In Arkansas, SCBGP funding has supported research and extension efforts led by many of my colleagues in the University of Arkansas System Division of Agriculture with direct benefits to growers, processors, and consumers. This funding has addressed unique local issues that would likely not be priorities for national funding programs and has contributed to recent expansions in Arkansas fruit crop industries. While our specialty crop industry is small, Arkansas producers are key to providing locally produced products to local markets, and the strength of these local markets improves the integrity of our national food system.

Some of the key outputs developed with SCBGP support for Arkansas specialty crop growers include:

1. Novel trellising systems for blackberry to limit crop loss due to severe winter and summer weather
2. Winter cover crop recommendations for watermelon growers to promote soil health
3. Recommendations of high-yielding, locally adapted commercial melon varieties
4. Establishment of an Arkansas Horticulture Discovery Farm to model best irrigation practices for tree fruit production
5. Recommendations for hops production for the Mid-south and collaboration with local breweries to incorporate locally produced hops into their products
6. Melonworm moth monitoring and pest control recommendations for pumpkin growers
7. Workshops and technical assistance to educate growers and buyers on regulatory requirements, legal risks, value-added processing infrastructure, food safety, and new market opportunities for home-based food sales now allowed through the Arkansas Food Freedom Act 1040 of 2021

SCBGP funding has also increased activity between producers and consumers in Arkansas. Some examples of outputs from our programs that have resulted in increased interaction between producers and consumers include:

1. Development of an Arkansas Blackberry Growers Association (https://arkansasblackberry.org/) which serves growers across five states and interfaces with consumers to raise awareness of locally produced blackberries
2. Educational resources that Arkansas Blackberry Growers Association and the Mid-American Strawberry Growers Association members use to educate the public on locally produced blackberries and strawberries
3. Public education about local hops production and use of local ingredients in brewing

The current research and program funding provided by the SCBGP is important to supporting the Arkansas specialty crop industry but may be improved by reconsidering how each state is allocated funding. Current funding is determined using the base of approximately $243,001.70 and the most recently available value of specialty crop cash receipts and acreage in the state. Arkansas is currently funded at $363,721.46, as compared to $338,270.12 for Wyoming, $378,623.40 for South Dakota, and $495,715.27 for Alabama. While the value of specialty crop cash receipts and acreage are important indicators of the industry scale, it may be important to support emerging industries that are not accounted for in these data. Reconsidering funding allocations for states with emerging specialty crop industries may prove important to meet national goals of increasing local, regional, and resilient food systems. Arkansas is receiving national attention as a key location for being a potential next California.

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Questions for the Record
Ms. Diana Kobus

Senator John Fetterman

1. As you saw in this hearing, myself and many of my colleagues on the committee are interested in the topic of crop insurance for more producers. How would crop insurance for organic producers need to look to be successful?

Thank you Senator Fetterman for this question and the opportunity to clarify this issue.

With crop insurance, supporting farmers through the three-year (or more) transition to organic period, when they are vulnerable to losses due to rebalancing the environment, including and not limited to above ground pests and rebuilding healthy soil quality and organisms below ground, continues to go unaddressed. If we want to incentivize farmers to transition to organic and are not going to offer direct incentives, perhaps they can be temporarily insured during this critical time in a farm business in a way that creates incentive to undertake this risk. We know these farms are more profitable on the other side of transition.

For the most direct, comprehensive, and well-researched answers to this question, I refer you to the 2019 report "Is Organic Farming Risky? Improving Crop Insurance for Organic Farms" from National Center for Appropriate Technology (NCAT), which has a sizable and well-respected list of authors, researchers, and project advisors. I have provided the summarized recommendations below, but significantly more discussion can be found within the report, which I encourage reading for more depth on these issues.

https://attra.ncat.org/wp-content/uploads/2022/09/IsOrganicFarmingRisky.pdf
This work was supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2014-51300-22224.

Specifically, Section ii, page 8 - Recommendations:

1. Maintain and increase general education aimed at introducing basic concepts of crop insurance, along with new options for organic farms, to wide audiences.
2. Launch new educational efforts targeted to specific commodities and markets, especially mid- to large-scale horticultural crop growers and others with low historic crop insurance participation rates.
3. Continue to adjust single-crop policy rates so they better reflect the growing body of experience among organic farmers.

4. Conduct further research on how adverse selection impacts the use of crop insurance by organic producers.
5. Establish a policy to the effect that having a current valid organic certification and being in compliance with an approved Organic System Plan suffices as prima facie evidence that an organic grower is using good farming practices.
6. Establish a policy that any practice approved through NRCS conservation programs meets the standard of a good farming practice.
7. Improve access to single-crop revenue-based policies with organic price elections in more counties nationwide.
8. Pilot a type of simple and inexpensive Catastrophic Risk Protection (CAT), possibly within WFRP, aimed at small and diversified fruit and vegetable growers.
9. Eliminate the cap on contracted prices and allow the use of full, actual contracted prices in the Contract Price Addendum.
10. Improve public availability of organic price data, particularly in field crops and livestock products.
11. Provide more education and outreach to RMA employees, AIPs, insurance agents, and claim adjusters about organic certification and production systems.
12. Eliminate the WFRP requirement to report operating expenses and indemnity penalties related to expenses.
13. Reduce the burden of proof on growers when estimating insurable revenue and completing the WFRP Intended Farm Operations Report.
14. Develop farmer-friendly tools to ease WFRP paperwork burdens.
15. Provide more education and outreach to organic farmers about the WFRP alternative, particularly those in locations where no alternative single-crop revenue policies exist.
16. Count indemnity payments as historic farm revenue for WFRP claims adjustment purposes.
17. In determining a farm's historic average revenue for WFRP purposes, allow lower-than-average years to be replaced or adjusted.
18. Raise or eliminate the 35% WFRP limit on expansion.
19. Lock in expected price and yield upon acceptance of the WFRP Revised Farm Operations Report.

and Chapter 8, page 105 - Recommendations for improving crop insurance for organic farms:

"Our research has found six general problems affecting organic growers:

1. Limited availability of single-crop policies for specialty crops.
Recommendation 1: *Improve access to single-crop revenue-based policies with organic price elections in more counties nationwide.*

Recommendation 2: *Pilot a type of simple and inexpensive Catastrophic Risk Protection (CAT), possibly within WFRP, aimed at small and diversified fruit and vegetable growers.*

2. Limited grower understanding of crop insurance options.
   Recommendation 1: *Maintain and increase general education aimed at introducing basic concepts of crop insurance, along with new options for organic farms, to wide audiences.*
   Recommendation 2: *Launch new educational efforts targeted to specific commodities and markets, especially mid- to large-scale horticultural crop growers and others with low historic crop insurance participation rates.*

3. Actuarial calculations and premium costs that do not accurately reflect the experience of many organic growers.
   Recommendation 1: *Continue to adjust single-crop policy rates so they better reflect the growing body of experience among organic farmers.*
   Recommendation 2: *Conduct further research on how adverse selection impacts the use of crop insurance by organic producers.*

4. A lack of clarity about "good farming practices"
   Recommendation 1: *Establish a policy to the effect that having a current valid organic certification and being in compliance with an approved Organic System Plan suffices as prima facie evidence that an organic grower is using good farming practices.*
   Recommendation 2: *Establish a policy that any practice approved through NRCS conservation programs meets the standard of a good farming practice.*

5. Estimates of insurable revenue that are often too low.
   Recommendation 1: *Eliminate the cap on contracted prices and allow the use of full, actual contracted prices in the Contract Price Addendum.*
   Recommendation 2: *Improve public availability of organic price data, particularly in field crops and livestock products.*

6. Insufficient understanding of organic farming by agents, adjusters, and other industry professionals.
   Recommendation: *Provide more education and outreach to RMA employees, AIPs, insurance agents, and claim adjusters about organic certification and production systems.*

Senator Amy Klobuchar

1. Beginning farmers experience a large number of challenges as they begin their operations – from barriers to land access to regulatory obstacles. Organic production is especially

popular with young farmers and an organic certification can help ease the transition by boosting marketing and helping to connect with local and regional food systems.

a. How would having additional certainty from the National Organic Standards Board (NOSB) on growing methods benefit young and beginning farmers and transitioning farmers as a whole?

Thank you Senator Klobuchar for the opportunity to explore this question.

I'm not sure the wording of this question gets to the heart of the issue. The certainty these young and beginning farmers need is a question of market access, processing, and distribution, often but not always local or regional, as well as small farm support for maintaining the organic certification, which is a financial and regulatory burden that can be a particularly heavy lift for a small farm operation.

The question of 'certainty' around growing methods is not really one left to the NOSB for guidance so much as to local technical experts and mentors, as is being developed through the Transition to Organic Partnership Program. This would vary considerably based on geographic location, soil quality, crop/scope, and accessibility to on farm processing facilities. I strongly encourage codifying the Organic Transition Initiative (OTI), including the TOPP program, in the Farm Bill to support this personalized support, including technical organic training for NRCS and local extension staff where needed.

b. What kinds of additional flexibility in the certification process could incentivize sign-ups by beginning farmers and help meet rising consumer demand?

I don't believe we're serving the public by being more flexible with the certification process and therefore the integrity of the label. There is already a great deal of label fatigue and lack of understanding what the USDA organic label really means and the quality it ensures (the Organic Trade Association has the data and reports for reference). I believe this approach would be self-defeating for the organic sector.

We know the demand is there in the market, and we know the high cost of healthcare is closely tied to the food system. Therefore, what we **can** do is offer more material and financial support for transition and beginning farmers to reward them for the environmental and community services they offer through organic farming, since so much industrial conventional agriculture is heavily subsidized to begin with and is currently reaping additional large financial benefits for showing marginal improvements over a large scale while still externalizing many environmental costs. We do need progress there too, and I am happy to see it, but not while denying the appropriate financial compensation to the early adopters in, and courageous newcomers to, the work of organic agriculture.

To truly build system-wide resilience in our food system in the face of climate change induced crop failures and supply chain interruptions, we must be fair to the farmers willing to undertake the risk and burden of small to medium-sized farms that use organic growing practices through subsidizing them at the same level. The Organic Transition Initiative, including the market

development funding, has offered the organic community huge new potentials, and we are responding with renewed energy and purpose, but we are also reaching capacity without significant investments in workforce development to keep pace with the specialty knowledge of organic production.

We are incredibly grateful for the opportunities this funding provides, and we are already making great strides in building community around organic food production.

A root-cause analysis would indicate that flexibility in the certification process is not the issue that would incentivize more small organic farms. If we want to shift the food system to protect the American public in times of crisis, we have to show up with material changes to the financial imbalance in subsidizing industrial agriculture. The systems change we need to support beginning organic growers must be commensurate with the costs of not making change, in order to help us shift our food system to keep pace with the challenges of climate change.

When I testified before the subcommittee in-person, the United States Capitol was socked in with red to purple alert air quality alerts due to fires in Canada. Almost a month later, large swaths of our population centers are again under the same alert. We have crossed almost every tipping point of earth's systems of resiliency (https://www.stockholmresilience.org/research/planetary-boundaries.html).

This is the most important Farm Bill in our lifetimes, and shifting our billion dollar investments to incentivize a regenerative food system is the change we need. Though changing incremental levers from within a small percentage of overall production is helpful, the potentials of what we can achieve are unlimited if we could gain a commensurate share of the investment that goes to support the industrial food system.

The organic community has been thrilled at the opportunity to have a voice in this process, and I hope the subcommittee will continue to call on our community with questions and concerns in the future. A body of research exists to support this work, and we can help access it. There is great love for good food, the planet, and each other in this community, and we are grateful to be asked to the table to have these conversations with you.