PAST BREAKTHROUGHS AND FUTURE INNOVATIONS IN CROP PRODUCTION

HEARING

BEFORE THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINETEENTH CONGRESS

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PAST BREAKTHROUGHS AND FUTURE INNOVATIONS IN CROP PRODUCTION

TUESDAY, JULY 22, 2025

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

The Committee met, pursuant to call, at 10:20 a.m., in Room 1300, Longworth House Office Building, Hon. Glenn Thompson, [Chairman of the Committee] presiding.

Members present: Representatives Thompson, Lucas, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Rouzer, Kelly, Bacon, Bost, Johnson, Baird, Mann, Feenstra, Miller, Moore, Cammack, Finstad, Rose, Jackson of Texas, Nunn, Newhouse, Wied, Bresnahan, Messmer, Harris, Taylor, Craig, David Scott of Georgia, Costa, McGovern, Adams, Hayes, Brown, Davids of Kansas, Salinas, Davis of North Carolina, Tokuda, Budzinski, Sorensen, Vasquez, Jackson of Illinois, Thanedar, Gray, McDonald Rivet, Figures, Vindman, Riley, Mannion, McClain Delaney, and Carbajal.

Staff present: Laurel Lee Chatham, Wick Dudley, Luke Franklin, Josie Montoney, Suzie Cavalier, Daniel Feingold, Michael Stein, and Jackson Blodgett.

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

The CHAIRMAN. The Committee will come to order.

Welcome. Thank you for joining today's hearing entitled, *Past Breakthroughs and Future Innovations in Crop Production.* After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions.

So once again, good morning, everyone, and welcome to today's hearing. I want to begin by thanking Ranking Member Craig for her partnership in hosting this bipartisan hearing, and I appreciate the participation of our colleagues on both sides of the aisle who are here to examine a topic that lies at the very heart of American crop production, innovation.

I would also like to extend my sincere thanks to our panel of witnesses. You each bring valuable expertise and real-world perspective to this conversation, and we are grateful that you have taken time out of your schedules to be with us today. I look forward to hearing your insights on how innovation is shaping the future of agriculture and what we as policymakers can do to support that momentum.

For generations our farmers have not only fed this country, they have helped to feed the world, and they have done so by continuously adapting and embracing new tools, technologies, and practices. The success of U.S. agriculture has been built through ingenuity, hard work, and the strategic application of science and technology. From seed to soil to harvest, that innovation has been the engine that drives productivity, efficiency, and stewardship across the entire agriculture value chain. Simply put, American agriculture has become the envy of the world because we have embraced science, technology, and a commitment to progress.

Throughout history, producers have benefited from a steady stream of scientific breakthroughs that have changed the face of farming. The introduction of hybrid corn in the early 20th century marked a turning point in the yield improvement and reliability. The expansion of modern fertilizers to meet key crop needs drove an additional era of unprecedented productivity. The rollout of biotechnology traits like insect-resistant Bt cotton and glyphosate-tolerant soybeans gave farmers important tools to combat pest and weed pressures. These traits, alongside proven crop protection tools, not only protect crops from devastating losses but also help producers more effectively steward their land by enabling soil conservation practices like no-till.

Alongside these historic breakthroughs, we have also seen remarkable progress on the next generation of tools to work hand-in-hand with these proven technologies. Innovations in the crop protection space have given producers targeted solutions that improve efficacy while reducing off-target impacts. Biological products such as biostimulants are unlocking new ways to strengthen plant health and productivity, and gene-editing tools are already leading to the development of crops that are more resilient to drought, disease, and environmental stress with traits tailored to farmers' and consumers' needs.

Today, thanks to decades of investment in agriculture innovation and the tireless efforts of our producers, the United States is home to the most abundant, affordable, and safest food supply in the world. We should be proud of that legacy. We should also recognize that sustaining it will require us to remain forward-looking and focus on reducing the barriers that stand in the way of continued innovation.

For these promising new tools to reach the farmgate and ultimately benefit consumers, rural economies, and the environment, we must have a regulatory environment that is grounded in science, transparent in its decision-making, and predictable in its timeliness and outcomes. When innovators face confusion about which agency has jurisdiction, or when reviews take years with no clear rationale, or when litigation is used as a tool to block technologies that have already been proven safe, we lose more than just time. We lose investment and competitiveness, and we risk falling behind global competitors who are moving fast to deploy the tools of tomorrow.

As a Committee, we have a responsibility to ensure that our regulatory framework is built for the 21st century and effectively protect human health and the environment without stifling innovation. That means modernizing and streamlining roles where appro-

priate, clarifying approval pathways for new technologies, and making sure that the rules of the road are clear and based on measurable risk, not hypotheticals.

Today's hearing is about honoring the legacy of past breakthroughs while creating the conditions for future success. We will hear about the incredible potential for emerging technologies, the challenges facing innovators, the real-world impacts on producers, and the opportunities for Congress to create smarter, science-based policy that keeps American agriculture on the cutting edge.

[The prepared statement of Mr. Thompson follows:]

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

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The CHAIRMAN. With that, I would now like to welcome the distinguished Ranking Member, the gentlewoman from Minnesota, Ms. Craig, for any opening remarks that she would like to give.

OPENING STATEMENT OF HON. ANGIE CRAIG, A REPRESENTATIVE IN CONGRESS FROM MINNESOTA

Ms. CRAIG. Thank you so much, Mr. Chairman, and thank you to our witnesses for being here today.

American farms are among the most productive on Earth, enabling our farmers to feed the country and the world. They take this responsibility seriously, just as seriously as their commitment to farms using methods that keep their neighbors, consumers, and the environment safe. Today, I am excited that we get to focus on and learn about how cutting-edge biotechnology, tried-and-true crop production techniques, and sound policy equip our farmers with the tools they need to continue feeding America's families.

To maintain a high-quality food production system, we need a regulatory framework that is transparent and based on sound science. The moment we begin to stray from these principles is the moment that trust in our food system begins to deteriorate. That is why I am concerned with so many of the comments and actions coming out of the current Administration that seem designed to undermine people's confidence in our regulatory system, attack innovation taking place on our farms, and make it harder for family farmers to do their jobs.

Take, for example, the MAHA Commission report, which was riddled with errors and cited nonexistent studies. Errors and misinformation like these have consequences. It undermines Americans' trust in the food we eat and attacks farmers for the work that they do. Secretary Kennedy's disregard for science and perversion of facts and data are dangerous, erodes confidence in our public health and regulatory systems, and dissuades talented scientists from joining the civil service.

The Environmental Protection Agency has also begun to move backward with the haphazard firing of technical staff and scientists responsible for properly assessing new chemicals and technologies and their impact on our people, food, and the environment. This work requires talented toxicologists, chemists, and other scientists who collaborate with industry and advocacy groups to protect the environment while ensuring farmers have access to the tools they need.

This uncertainty isn't just bad for the agency and American citizens that rely on the government to protect their health and the environment. It is bad for business. Innovative products that could

have come to market will be stalled in the pipeline as review times get even worse.

American scientists and farmers have unlocked the building blocks of many plants, discovering how to make crops more resilient to drought, increase production yields, and reduce resource consumption. Defunding fundamental science research and firing the civil servants and scientists who work with private companies and farmers to bring technological advancements and new crop tools to market will put us further behind as countries like Brazil, India, and China increase the size and scope of their research programs.

We all want science-based regulatory decisions and policy, which is why I urge my colleagues to oppose any further defunding and termination of our research programs and scientists and rather look for opportunities to invest in these efforts and people, which we all agree are critical to the future of farm country.

We have before us an impressive panel of witnesses, all of whom have extensive experience in how to effectively use crop protection tools and use groundbreaking technology to bring new and innovative products to market. As we start to move toward reauthorization of the Pesticide Registration Improvement Act, testimony like yours can help to inform us of what improvements and changes might be made. So thank you so much for being here again to our witnesses.

And, Mr. Chairman, I yield back.

[The prepared statement of Ms. Craig follows:]

PREPARED STATEMENT OF HON. ANGIE CRAIG, A REPRESENTATIVE IN CONGRESS FROM MINNESOTA

Thank you, Mr. Chairman.

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Thank you, and I yield back.

The CHAIRMAN. I thank the Ranking Member.

The chair would request other Members submit their opening statements for the record so the witnesses may begin their testimony and to assure that there is ample time for questions.

[The prepared statement of Ms. Adams follows:]

PREPARED STATEMENT OF HON. ALMA S. ADAMS, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

Thank you, Mr. Chairman.

When I reflect on breakthroughs and future innovations in crop production, I think about how much progress we have already made—and how much further we can still go.

Advances in technology, science, and farming practices have revolutionized agriculture in ways that were unimaginable just a few decades ago.

From precision farming and biotechnology to improved irrigation and sustainable soil management, these innovations have increased crop yields, reduced environmental impact, and helped feed a growing population.

Despite these remarkable achievements, our work is far from over.

As a Senior Member of the House Agriculture Committee, I take this work very seriously, as the decisions we make in this Committee ultimately have the power to propel us ahead or set us back.

And, as a Member of the Subcommittee on Conservation, Research, and Biotechnology, I am responsible for overseeing policies related to pest and disease management, including pesticides.

That is why I was deeply concerned when, in May, the United States Department of Agriculture (USDA) published a final rule removing the requirement for applicators to report their use of Restricted Use Pesticides (RUP).

This rule was issued without a public comment period or notice, and it means that effective July 11, 2025, farmers and other private applicators are no longer legally obligated to record critical information such as the pesticide used, application date, amount, location, and the crop treated.

This is troubling because the Environmental Protection Agency (EPA) classifies certain pesticides as "restricted use" when they pose serious health and environmental risks if not handled with strict precautions.

The EPA's list of RUPs spans 45 pages and includes chemicals like paraquat, atrazine, and chlorpyrifos—substances linked to severe issues such as Parkinson's disease, birth defects, and other chronic conditions.

In the USDA's final rule notice, agency officials dismissed these regulations as "not a priority" and states that "to the extent there is any uncertainty about the costs and benefits, it is the policy of the USDA to err on the side of deregulation." But the truth is, regulations protecting human health and the environment should be strengthened—not eliminated.

Growing and harvesting food should be a safe and healthy experience for everyone involved—from farm to plate. Farmworkers—who provide the food we eat every

day—deserve protection that keep them, their families, and their communities safe from hazardous pesticide exposure.

That is why I have supported legislation, such as the Ban Atrazine Toxicants Act led by my colleague Mr. McGovern, which seeks to prohibit the use, production, sale, importation, and exportation of any pesticide products containing atrazine.

Atrazine is particularly harmful—it is derived from oil and gas, is an endocrine disrupter, and has been linked to breast cancer, prostate cancer, congenital disabilities, and reproductive harm. It contaminates drinking water sources for more than 40 million Americans, and it is highly toxic to wildlife.

This country deserves a food system that not only feeds everyone but also respects the health of the people and the planet.

Farmers and farmworkers must be able to trust that the tools they use do not threaten their health, their communities, or the ecosystems that sustain their livelihoods.

And families walking up and down the aisles of grocery stores should be able to trust that the products on the shelves are safe to consume.

Atrazine, among other chemicals, has been a proven danger, and it is long past time for the United States to join many other countries in ending its use and adopting safer alternatives.

Fortunately, safer alternatives to harmful pesticides exist—options that offer better health outcomes, stronger environmental protections, and improved economic and sustainability benefits.

We owe it to our farmers, farmworkers, and future generations to prioritize those alternatives and build a food system that truly works, and is healthy, for all.

I yield back.

The CHAIRMAN. I will now yield to the gentleman from California, Mr. Costa, to introduce our first witness.

Mr. COSTA. Thank you very much, Mr. Chairman, Ranking Members, Members of the Committee.

This hearing today, *Past Breakthroughs and Future Innovations in Crop Production,* is critical to the future of American agriculture. And as many of you have heard me say regularly, food is a national security issue. And so therefore, having this panel of witnesses here before us this morning is appropriate and fitting.

The first witness that will testify is a person who is a longtime friend, constituent, and a person I have worked with in agriculture for many, many years, and actually a neighbor farmer. I am speaking of Mr. Don Cameron from my home county in Fresno, California. The County of Fresno, of course, is where Don farms. He is Vice President and General Manager of Terranova Ranch, a 6,000 acre farm near in the area where I farm, and also operator of Prado Farms.

He holds a degree from California State University at Fresno, my alma mater, go Dogs. And his ranch produces, amazingly, Members of this Committee, that I have been to numerous times, 25 different crops, including conventional and organic and biotech field crops such as tomatoes, peppers, onions, corn, various seed crops, as well as perennial crops like walnuts, wine grapes, almonds, and pistachios and olives. Don does just about everything. And some of you, the Chairman and past Agriculture Secretaries, have been to his farm in which he has held forums and meetings to better facilitate cooperation.

Food on America's dinner table is a national security issue. Don has led the development in efforts to demonstrate that. He won the 2017 Governor's Environmental Leadership Award and the Agriculturalist of the Year by the Fresno Chamber of Commerce. He is innovative in technology and water recharge, and he also serves on several agricultural boards. He has been the chair of the California State Board of Food and Agriculture since 2018.

He is a full package, and we look forward to hearing his testimony on these important issues because change is constant and change is hard, and Don Cameron represents a good model on how you adapt and address the change. We will look forward to hearing this witness' testimony. Thank you.

The CHAIRMAN. I thank the gentleman.

Our next witness is Mr. Terry Abbott, Chairman of the Council of Producers and Distributors of Agrotechnology.

Our third witness today is Dr. Karl Wyant, the Director of Agronomy at Nutrien.

Our fourth and final witness is Mr. Bryan Witherbee, the Chief Executive Officer at Agragene Incorporated.

Thank you all for joining us today. We will now proceed to your testimony. You will each have 5 minutes. The timer in front of you will count down to zero, at which point your time has expired.

Mr. Cameron, please begin when you are ready.

STATEMENT OF DON J. CAMERON, VICE PRESIDENT AND GENERAL MANAGER, TERRANOVA RANCH, INC., HELM, CA

Mr. CAMERON. Thank you, Chairman Thompson, good to see you again, about a year and a half since you visited our farm. And Ranking Member Craig and Members of the Committee, it is an honor to be invited here today to help inform on the important decisions that you have been elected to make on behalf of U.S. agriculture and for food security for this nation.

You heard my name is Don Cameron, Vice President, General Manager at Terranova Ranch in Helm, which is in the San Joaquin Valley of California. You heard we farm quite a few different crops. Jim missed a few, but I am not going to bring those up, but we do farm a wide variety of different specialty crops on the farm.

As I said, our capacities as a farmer have included being President of the California State Board of Food and Agriculture, which advises the California Secretary of Ag and the Governor on issues in agriculture for our state. And I am also a Western Growers board member.

Farmers are in the business of providing healthy, nutritious food. The ever-increasing costs of inputs, seed, water, energy, and labor make for thin margins without room for error. To ensure my livelihood and that food arrives at your grocery store, restaurants, and schools, I must protect my crops from pests and disease. I can assure you, with all the costs of doing business and its associated regulatory burdens, farmers don't have slush funds to waste money on crop inputs that are not absolutely necessary.

As a farmer, I am aware of consumer apprehension about the use of pesticides and, in turn, retail grocery stores and restaurants that have also been sensitized to this issue. As a father and grandfather, I am sympathetic to the consumer concerns when hearing about pesticides in the media. Sometimes we look past the fact that pesticides are regulated extensively by EPA with support from USDA, FDA, and state agencies to ensure that they are safe for human health and for the environment under the intended use using scientific data. The Federal Insecticide, Fungicide, and Rodenticide Act, FIFRA (Pub. L. 80–104), mandates rigorous risk assessments to determine any necessary mitigation measures that

must be taken before a product can be registered and safely applied.

Fruit and vegetable growers must meet a high standard for quality demanded by consumers. In today's culture, where shoppers often bypass slightly bruised produce in favor of perfect-looking fruits and vegetables, the pressure on farmers to deliver flawless crops is immense. To support consumer expectations and public health goals centered around nutritious diets, a full range of innovative crop protection tools, including pesticides, is essential to ensure the reliable production of appealing, high-quality fresh produce.

Growers have been investing in crop innovations for a long time and are making great strides to reduce reliance on traditional pesticides, increase crop resilience, and diversify with innovative technologies. The agriculture industry needs your backing in these efforts, including research and support for novel technologies.

The Trump Administration recently released the Make America Healthy Again, MAHA report, which spotlights the importance of access to a healthy diet and can spur collaborations toward innovative tools to address concerns while cultivating a viable future for domestically produced fruits and vegetables safeguarded from pests and diseases. I would like to highlight a few recommendations. You will find more in my written testimony that will accelerate innovation, including at the USDA.

The IR–4 Project is a key resource for the specialty crop industry, and we support increased funding to enable continued work with novel crop protection technologies for specialty crops, including biological crops or products.

I also encourage an increase in research grants specific to the next generation of crop protection tools specifically targeted at pests that are our greatest threat to our food supply.

While the scope of the Committee's jurisdiction over EPA is limited, I think we can agree that EPA's impact on agriculture cannot be overlooked. We appreciate the Committee's attention to this issue. EPA staffing issues directly impact the ability to move applications through the registration process in a timely manner. There simply aren't enough EPA staff to keep up with the workload, and staff being hired are not as familiar with biologicals and are often grounded in conventional products. Growers support increased staff who can focus on biological registration.

As I close, it is my hope that through conversations like this and through your leadership, we can pave the way for America to lead these innovations and, in doing so continue to produce healthy food long into the future.

Thank you again for the opportunity. I look forward to the questions and to this important discussion today. Thank you.

[The prepared statement of Mr. Cameron follows:]

PREPARED STATEMENT OF DON J. CAMERON, VICE PRESIDENT AND GENERAL MANAGER, TERRANOVA RANCH, INC., HELM, CA

Introduction

Chairman Thompson, Ranking Member Craig, and Members of the Committee, it is an honor to be invited here today to help inform the important decisions you have been elected to make on behalf of U.S. agriculture for the food security of this nation.

My name is Don Cameron. I am Vice President and General Manager of Terranova Ranch in Helm, in the Central Valley of California. We farm over 25 different crops with 6,000 acres of our own production and 1,500 custom farmed for other clients. We grow a mix of conventional and organic crops including processing tomatoes, peppers, onions, corn, walnuts, wine grapes, almonds and pistachios. I have served in various agricultural leadership capacities throughout my career as a farmer including President of the California State Board of Food and Agriculture which advises the California Secretary of Agriculture and the Governor on agricultural issues and am also a board member of Western Growers Association.

State of Play

Today, we are here to talk about innovations in crop production including crop protection tools, so I'd like to spend just a moment talking about the current state of play.

Farmers are in the business of providing healthy, nutritious food. The ever-increasing cost of inputs; seed, water, energy and labor make for thin margins without room for error. To ensure my livelihood and that food arrives at your grocery store, restaurants, and schools, I must protect my crops from pests and disease. I can assure you, with all the costs of doing business and its associated regulatory burdens, farmers don't have slush funds to waste on crop inputs that are not necessary. We look for ways to minimize what we use, which is how we have always handled the issue of crop protection. As a farmer, I'm aware of consumer apprehension about the use of pesticides and in turn retail grocery stores and restaurants who have been sensitized to the issue. As a father and grandfather, I am sympathetic to consumer concerns when hearing about pesticides in the media. I would like to note that the most extreme version of stories often gets the most attention, so I appreciate the opportunity to discuss this issue and how we can best support farmers and provide consumers with access to fresh, affordable, and safe food.

Sometimes we look past the fact that pesticides are regulated by the EPA with support from USDA, FDA, and state agencies to ensure that they are safe for human health and the environment under their intended use using scientific data. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) mandates rigorous risk assessments to determine any associated risks and the necessary mitigation measures that must be taken before a product can be registered and applied. EPA also establishes residue limits or tolerances and tests for them regularly to ensure the safety of the food supply and has a "reasonable certainty" of no resulting harm from any pesticide residue.

Pesticides play a vital role in our food system, helping farmers protect their crops from destructive pests that threaten both yield and quality. An economics study by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis (CDFA OPCA) highlighted the real-world consequences of limited pest control options, revealing that in 2023 California cotton farmers lost $40.9 million due to an outbreak of *Lygus* bugs on Pima cotton—a loss directly linked to the lack of any effective tools to manage just one pest.

This example underscores the broader challenge faced by fruit and vegetable growers who must meet a high standard of quality demanded by consumers. In today's culture, where shoppers often bypass slightly blemished produce in favor of perfect-looking fruits and vegetables, the pressure on farmers to deliver flawless crops is immense. To support both consumer expectations and public health goals centered around nutritious diets, a full range of innovative crop protection tools, including pesticides, is essential to ensure the reliable production of appealing, high-quality fresh produce.

Grower Innovation

Growers have been investing in crop innovations for a long time and are making great strides to reduce reliance on traditional pesticides, increase crop resilience, and diversify with innovative technologies. Farmers are utilizing integrated pest management (IPM) methods to manage pests while minimizing risks to people, property, and the environment, introducing predatory insects, precision agriculture, leveraging crop breeding and genetics to develop plants resistant to pest and disease pressures, laser weeding, autonomous equipment and more. As you know, farmers are pragmatic and continually adapt and improve to survive, but much more can be done to support the industry in these efforts including research and support for novel technologies.

It should come as no surprise that growers must ascertain very quickly which crop protection tools work and which don't. With razor-thin margins, we can be reluctant to make a switch from something that we know works, to a new product or technology that is unproven. Efficacy concerns, costs associated with retrofitting

equipment or unique handling requirements such as refrigeration, and the need for increased applications are all things to be considered. Biologicals are new technologies and growers are less familiar with them and will need additional technical guidance and incentives to take the leap. Proving something in a research lab is far different than in an open field, so we need to get more biologicals in the hands of growers to test it themselves and see what works best. We also see a strong need for resources to help evaluate and trial these products for efficacy on farm, getting the necessary data for broader grower buy-in.

The Trump Administration's recently released the Make America Healthy Again (MAHA) report which in part seeks to address consumer apprehension to potential exposure to some pesticides. We see this spotlight on healthy food as an opportunity to spur collaborations toward innovative tools to address concerns while cultivating a viable future of domestically produced fruits and vegetables safeguarded from pests and diseases. With the Committee's leadership and oversight on the issue, innovations in crop production can help growers continue to provide healthy, nutritious foods for Americans.

USDA Opportunities

The U.S. Department of Agriculture has the opportunity to lead the acceleration of developing novel crop protection tools. Biological products are one of the fastest growing segments of the pest control market and America should be seen as a leader of research and development for crop protection. This Committee recognizes the IR–4 Project as a key resource for the specialty crop industry and we support increased funding to enable its continued work with novel crop protection technologies for specialty crops, including biological products. Relatedly, the IR–4 Project used to partner with the U.S. Environmental Protection Agency (EPA) on a Biopesticide Demonstration Grant Program to coordinate the trials and promotion of the use of biopesticides; this program should be reinvigorated. I also encourage an increase in research grants specific to next generation crop protection tools specifically targeted at pests that are the greatest threat to our food supply. USDA's Office of Pest Management Policy also stands to be a leader in new technologies, and we encourage increased funding for this vital team.

U.S. EPA Opportunities

While the scope of the Committee's jurisdiction over EPA is limited, I think we can agree that EPA's impact on agriculture cannot be overlooked, and we appreciate the Committee's attention to this issue. Given the complicated balancing act of agricultural pesticide use, I encourage EPA's increased engagement with biological registrants to facilitate knowledge sharing in two ways: EPA educating smaller innovative biological companies with an understanding of the registration process, and EPA providing opportunities for innovators to share the latest tools and techniques for their ongoing awareness—both are necessary to shorten the lengthy timeline for innovative tools.

EPA staffing issues also impact the ability to move applications through the registration process in a timely fashion. First, there simply aren't enough EPA staff to keep up with the workload, a key reason EPA has described as the hurdle to finalizing registrations. Second, the staff being hired are not as familiar with biotechnology as they are often grounded in conventional products. Growers appreciate recent announcements from the EPA related to staffing priorities and we support increasing staff who can focus on biological registrations.

The EPA has a unique opportunity to lead beyond its own Federal agency. U.S. growers are impacted by multiple levels of pesticide regulations and pest pressures, and we look to the EPA to engage both domestically and globally. For those of us in California, where about ½ of the U.S. production of nutritious fruits and vegetables are grown, an additional registration and reporting process is required by California's Department of Pesticide Regulation (DPR). DPR has a shared interest with the EPA in advancing biological crop protection technology. The dual registration requirement processes, however, run counter to a swift development of next generation products such as biologicals and provide a concurrent registration process. I encourage EPA to dialogue with DPR to collaborate on this shared goal and develop an MOU to guide sustainable crop protection tools in the hands of growers at a rapid pace.

Closing

As I close, it is my hope that through conversations like this and through your leadership, we can pave the way for America to lead in these innovations and by so doing, continue to produce healthy food long into the future.

Thank you again for the opportunity, I look forward to your questions and to this important discussion today.

The CHAIRMAN. Thank you, Mr. Cameron, for your testimony.
Mr. Abbott, please begin when you are ready.

STATEMENT OF TERRY ABBOTT, CHAIRMAN, COUNCIL OF PRODUCERS AND DISTRIBUTORS OF AGROTECHNOLOGY; SENIOR PRODUCT PORTFOLIO MANAGER, ADJUVANTS UNLIMITED, LAKEWOOD, CO

Mr. ABBOTT. Good morning, Chairman Thompson, Ranking Member Craig, and Members of the Committee. Thank you for the opportunity to testify today.

My name is Terry Abbott. I serve as Chairman of the Council of Producers and Distributors of Agrotechnology and as Senior Product Portfolio Manager at Adjuvants Unlimited, based in Tulsa, Oklahoma. CPDA represents the formulators, distributors, manufacturers, and suppliers of adjuvants, inert ingredients, and post-patent pesticide products, representing nearly 90 percent of the U.S. crop protection market. Our members drive innovation across formulation, stewardship, and field performance.

When we talk about innovation in agriculture, it starts with access to tools. Farmers need affordable, reliable options to manage pests, protect yields, and keep their operations productive. That includes maintaining a competitive market for post-patent crop protection products and ensuring a regulatory system that delivers timely, science-based decisions.

Our industry also drives innovation beyond active ingredient. Companies like mine are advancing adjuvant and inert technologies that improve how products perform in the field. These tools reduce drift, enhance coverage, and support compliance with environmental requirements, including the Endangered Species Act (Pub. L. 93–205). They are essential for precision, stewardship, and modern production.

To keep these tools available, we need a regulatory system that works. Right now, over $½ billion in CPDA member products are stuck in the EPA's regulatory backlog. In turn, CPDA strongly supports full funding for EPA's Office of Pesticide Programs, and we encourage continued improvements under PRIA to strengthen transparency and predictability in the registration process. A well-functioning OPP benefits farmers, innovators, consumers, and the environment, ensuring access to safe, effective, and trusted crop protection tools.

We appreciate the farm program improvements in the One Big Beautiful Bill Act (Pub. L. 119–21), but we also support a Farm Bill 2.0 that builds on this momentum and reflects the needs of today's agriculture.

Last year's Farm, Food, and National Security Act of 2024 (H.R. 8467) includes provisions we view as important. We support language directing NRCS to update conservation practice standards so that programs recognize current technologies. We also support expanding access to technical service providers to ensure farmers have expert guidance when implementing conservation plans.

We are encouraged by the proposed centers of excellence for crop protection products and application technology. These centers would support research and innovation in formulation and delivery,

helping ensure the United States remains a global leader in crop protection, environmental stewardship, and ag innovation.

Last, I want to emphasize the critical role crop protection technologies play in maintaining a safe, affordable, and abundant food supply. These tools undergo rigorous review and are used responsibly by farmers every day. As the MAHA Commission continues its work, we urge policymakers to recognize the science, the safety record, and the value of these technologies in supporting both production and public confidence.

Thank you again for the opportunity to appear before you today. I look forward to your questions.

[The prepared statement of Mr. Abbott follows:]

PREPARED STATEMENT OF TERRY ABBOTT, CHAIRMAN, COUNCIL OF PRODUCERS AND DISTRIBUTORS OF AGROTECHNOLOGY; SENIOR PRODUCT PORTFOLIO MANAGER, ADJUVANTS UNLIMITED, LAKEWOOD, CO

Chairman Thompson, Ranking Member Craig, and Members of the Committee:

Thank you for the opportunity to testify today on behalf of the Council of Producers and Distributors of Agrotechnology (CPDA). CPDA is the premier advocate for the agrotechnology industry, representing formulators, distributors, manufacturers, and suppliers of adjuvants, inert ingredients, and post-patent pesticide products. Our members comprise a nationwide network that accounts for nearly 90 percent of the $15 billion U.S. crop protection market. For nearly 4 decades, CPDA has worked to advance science-based regulatory policies that protect the environment, foster innovation, and preserve growers' access to the tools they need to farm productively and sustainably.

I also serve as Senior Product Portfolio Manager at Adjuvants Unlimited, a company that develops and supplies advanced tank mix adjuvant and inert technologies to improve pesticide performance, application efficiency, and environmental stewardship in the field.

Innovation Begins with Access

Innovation in agriculture is ultimately measured by what reaches the farm gate. Scientific discovery, new formulations, and improved application technologies only deliver value when farmers can access them. That includes not just brand-new active ingredients, but also post-patent products, adjuvants, and inert ingredients that expand choices and enhance stewardship.

Post-patent pesticides play a vital role in maintaining a competitive marketplace. These are proven technologies with well-understood profiles, and they provide growers with the ability to select the products that best fit their crop, rotation, and environmental conditions. Ensuring continued access to these products is critical to supporting choice, flexibility, and cost-effective pest management strategies.

At the same time, innovation is increasingly found beyond the active ingredient. Adjuvants improve spray deposition, reduce drift, enable tank mix compatibility, and help growers meet complex label and environmental requirements. Inert ingredients enhance the performance of a formulation by helping ensure the active ingredient reaches the target site effectively, remains stable, and performs as intended under real-world conditions. These are not optional components. They are essential to making crop protection products function as intended.

Yet access to these tools is increasingly threatened by regulatory delays and uncertainty. Many post-patent products and formulation improvements are caught in the same backlog as new chemistries, limiting grower access to trusted options and stalling innovation across the board.

Regulatory Delays and the Backlog at EPA OPP

Today, more than $½ billion in CPDA member products are stuck in regulatory review at the Environmental Protection Agency's Office of Pesticide Programs (OPP). These delays slow innovation, increase costs, and reduce access to more sustainable solutions.

The Pesticide Registration Improvement Act (PRIA) was designed to deliver timely and predictable reviews. In exchange for user fees, industry receives target timelines for decisions. But today those timelines are routinely missed. EPA's own data shows that the vast majority of actions are overdue.

While EPA has taken steps under Administrator Lee Zeldin to improve internal coordination and streamline certain review processes, significant challenges remain. The registration backlog, though showing signs of stabilization, still affects hundreds of pending actions. Longstanding issues including limited staff capacity, outdated information systems, and insufficient funding continue to delay access to critical tools and undermine regulatory predictability.

Congress can and should address this. CPDA strongly supports full funding for the Office of Pesticide Programs, including the $166 million annual minimum authorized under PRIA V. That level of funding is not a wish list, it reflects the basic capacity EPA has said it needs to meet its statutory and workload obligations. Without it, the system breaks down. Farmers, innovators, and the environment all lose.

A well-funded OPP benefits everyone. It creates predictability for companies investing in research and development. It allows EPA to hire and retain the scientists and reviewers necessary to evaluate products thoroughly and efficiently. And it ensures that U.S. farmers have timely access to the crop protection tools they need to remain competitive globally.

Elevating the Role of Adjuvants in Stewardship and Conservation

While much of the public debate focuses on active ingredients, some of the most promising innovation today lies in how those products are used. Adjuvants are among the most cost-effective tools for enhancing stewardship. They reduce off-target movement, improve coverage, increase tank mix stability, and help deliver lower use rates while maintaining efficacy. They are especially valuable in achieving compliance with drift mitigation requirements and buffer zones established under new label language and emerging ESA strategies.

Yet Federal conservation programs and risk mitigation strategies have not kept pace. Most NRCS conservation practice standards do not properly incentivize the use of adjuvants, even when they clearly contribute to risk reduction and environmental benefit.

CPDA urges Congress to direct the Natural Resources Conservation Service to update conservation practice standards to reflect current adjuvant and application technologies. We also recommend establishing a Conservation Title pilot program that offers incentives for growers who incorporate drift reduction adjuvants or other optimization tools into their conservation practices. These relatively small investments can yield significant environmental returns.

In addition, CPDA supports increased Federal investment in applied research and demonstration projects through Land-Grant Universities and regional Centers of Excellence. These centers can serve as innovation hubs for testing new spray technologies, validating application strategies, and supporting farmer adoption through education and outreach.

Addressing the Technical Assistance Gap

As conservation and stewardship expectations increase, farmers need timely, site-specific guidance to implement effective practices. Technical Service Providers (TSPs) are an important part of that support system, helping producers design and apply conservation plans that meet agronomic, environmental, and regulatory goals.

CPDA supports the steps USDA has taken to address this issue, including the Memorandum of Understanding that expanded opportunities for non-Federal entities to assist with TSP training and certification. This effort has helped improve flexibility and expand capacity.

To build on this progress, CPDA supports the bipartisan Increased TSP Access Act, which would codify and streamline these improvements to ensure long-term consistency. By allowing more organizations to participate in training and credentialing, the bill would expand the pool of qualified providers and improve the delivery of conservation programs. It is a smart, scalable approach that helps farmers get the technical assistance they need while supporting the broader goals of the conservation title.

CPDA urges Congress to include this bipartisan proposal in the upcoming farm bill and ensure that farmers have the support they need to implement important conservation practices.

Advancing Practical ESA Compliance

One of the most consequential regulatory shifts underway involves the Endangered Species Act. After years of litigation, EPA is now integrating ESA consultation into pesticide registration decisions.

EPA has proposed a suite of strategies such as the Vulnerable Species Pilot and broader herbicide and insecticide strategies that aim to reduce risk to listed species through broader use restrictions and mitigation. But many of these approaches rely

on buffers or prohibitions that may not reflect actual risk or real-world application practices.

There is a better path. CPDA believes that practical mitigation, especially through technologies like drift reduction adjuvants, appropriate nozzle use, and precision spray equipment should be at the center of EPA's ESA compliance strategy. These tools can reduce off-target movement without taking acres out of production or forcing farmers into costly programmatic detours. They are adaptable, proven, and scalable.

CPDA supports continued collaboration between EPA, USDA, technology developers, and grower groups to refine and expand the use of these mitigation tools. We also urge Congress to ensure that ESA compliance frameworks are transparent, consistent, and based on sound science.

Defending the Integrity of the U.S. Pesticide Regulatory System

The United States has the most scientifically rigorous and transparent pesticide regulatory system in the world. Led by the Environmental Protection Agency (EPA), with support from USDA, FDA, and state agencies, this system is grounded in a risk-benefit framework that considers both hazard and exposure, evaluates potential impacts to human health and the environment, and includes special protections for children and vulnerable populations. It is a system that works when it is properly resourced, consistently applied, and guided by science rather than rhetoric.

Crop protection products undergo extensive review under FIFRA and the Food Quality Protection Act (FQPA). This includes multi-pathway risk assessments, ecological impact evaluations, drinking water safety modeling, and strict residue limits that are typically 100 times or more below levels shown to cause harm. Labels are legally enforceable, and product use is subject to regular oversight and compliance.

Unfortunately, the integrity of this system is being challenged by recent narratives that rely on emotion, misinformation, and flawed analysis. The MAHA Commission's initial report undermines trust in the regulatory process by citing unverifiable sources, omitting key stakeholder voices including farmers, food producers, and scientists, and making sweeping claims not grounded in the science or structure of the current system. Public discourse driven by such narratives risks weakening regulatory confidence and undermining evidence-based policymaking.

Science-based, risk-benefit regulation is not only compatible with protecting public health and the environment, it is essential to achieving those goals. Pesticides play a critical role in securing the food supply, enabling sustainable farming practices like conservation tillage, and protecting communities from disease-carrying pests. Global examples, such as the recent crisis in Sri Lanka, show what can happen when political decisions override agronomic and scientific expertise.

CPDA urges Congress and the Administration to reaffirm support for the U.S. regulatory framework and reject efforts to politicize or weaken it. That includes fully funding the EPA's Office of Pesticide Programs, which is central to ensuring timely reviews, maintaining regulatory confidence, and enabling continued innovation. It also means ensuring that future iterations of the MAHA strategy meaningfully include agricultural stakeholders and respect the credibility of the nation's science-based institutions.

U.S. farmers, scientists, and public health professionals are united in their commitment to safe, effective, and responsible pesticide use. CPDA and our members are proud to be part of that shared commitment, and we remain focused on strengthening a system that protects both productivity and public trust.

Conclusion

Innovation in agriculture is not limited to new chemistries. It is also about how we use technology smarter, how we deliver stewardship more efficiently, and how we make regulatory systems work better for farmers and the environment alike. CPDA appreciates the Committee's continued focus on these issues and welcomes the opportunity to contribute solutions.

Thank you again for the opportunity to testify. I look forward to your questions and to continued collaboration as Congress works to advance agricultural innovation and support the farmers who make it possible.

The CHAIRMAN. Mr. Abbott, thank you so much for your testimony, much appreciated.

Dr. Wyant, please begin when you are ready.

STATEMENT OF KARL WYANT, PH.D., DIRECTOR OF AGRONOMY, NUTRIEN, TEMPE, AZ

Dr. WYANT. Thank you. Good morning, Chairman Thompson, Ranking Member Craig, and Members of the Committee. Thank you for the opportunity to appear before you today to discuss innovations in crop production, including biostimulants.

My name is Karl Wyant, and I serve as the Director of Agronomy at Nutrien. I am also a certified crop advisor and certified professional agronomist through the American Society of Agronomy, where I advise growers on their inputs and help solve problems during the growing season.

Nutrien is the world's largest provider of crop inputs, including fertilizers and agronomic services, supporting hundreds of thousands of grower customers across the United States and globally. We serve 45 states through our extensive retail network where we provide seed, crop protection tools, fertilizer, and agronomic services, supporting both conventional and organic farmers of many crops and farm sizes. We are proud to be a leader in agricultural innovation, including plant biostimulant products.

Plant biostimulants are a class of crop inputs that includes diverse substances, such as humic acids, seaweed extracts, beneficial microbes, and protein hydrolysates, among others. These work differently than fertilizers or pesticides, which add nutrients directly to the plant or soil or protect the plant from pests and diseases. Biostimulants work by enhancing the plant or soil's natural processes, in essence, triggering the plant's own systems to boost nutrient release and uptake, improving stress tolerance to heat and cold, and supporting overall plant and soil health.

For example, Nutrien's Reacted Carbon Technology platform was shown in a study to improve yields in wine grapes by 13 percent over a control plot. This product works by stimulating microbial growth in the soil, which improves soil conditions and root growth, and therefore, improves the ability of the plant to access water from the soil. This study took place in drought-prone California, highlighting the usefulness of biostimulants in a fertilizer program to improve grower outcomes. Biostimulants can also improve environmental outcomes, such as reducing nutrient loss, improving fertilizer use efficiency, and supporting plant resilience to extreme weather events.

Unfortunately, plant biostimulants face an uncertain and inconsistent regulatory framework. There is currently no Federal definition for *plant biostimulants,* leaving a state patchwork of regulations leading to inconsistent labeling and marketing claims, which could ultimately impact growers. Additionally, incorrectly treating biostimulants as pesticides delays innovation and denies useful tools for farmers.

That is why we are urging support for the bipartisan Plant Biostimulant Act of 2025 (H.R. 3783). This bill establishes a science-based Federal definition of *plant biostimulant,* aligned with international plant nutrition standards already recognized in the EU, Canada, and other major agricultural economies. The bill will provide regulatory clarity and consistency across all 50 states; ensure biostimulants are recognized as a distinct input category and avoid misclassification under FIFRA; improve the integrity of product

registration; and keep U.S. growers competitive with China, Brazil, and the EU.

I strongly urge the Committee to support the Plant Biostimulant Act and its inclusion in the upcoming farm bill so our farmers have the tools they need to meet the challenges of the future.

Thank you again for your time and for your continued leadership in supporting American agriculture. Thank you.

[The prepared statement of Dr. Wyant follows:]

PREPARED STATEMENT OF KARL WYANT, PH.D., DIRECTOR OF AGRONOMY, NUTRIEN, TEMPE, AZ

Good morning, Chairman Thompson, Ranking Member Craig, and Members of the Committee.

Thank you for the opportunity to appear before you today to discuss emerging innovations in crop production. My name is Karl Wyant, and I serve as Director of Agronomy at Nutrien. It is an honor to speak on behalf of growers, agribusinesses, and researchers who are at the forefront of advancing sustainable agriculture—and specifically, to highlight the growing importance of plant biostimulants.

Nutrien is the world's largest provider of crop inputs and agronomic services, supporting hundreds of thousands of grower customers across the United States and globally. We produce all three macronutrients: potash, phosphate, and nitrogen in North America. We also serve 45 states through our extensive retail network, where we aim to provide everything the grower needs to grow a crop, including seed, crop protection tools, fertilizer, and agronomic advice, supporting conventional and organic farmers of a wide variety of crops and farm sizes. We are proud to be a leader in agricultural innovation, including the development and distribution of plant biostimulant products.

In addition to our proprietary portfolio of Loveland Products, we also partner with innovative agricultural technology providers (such as Agricen—USA) to help scale and commercialize their active ingredients and novel formulations, ensuring new tools reach the growers who need them most. A robust research pipeline ensures timely discovery of new ingredients, subsequent field trials and formulation optimization, and, ultimately, commercialization of new products, including biostimulants.

Some of you may be familiar with the term, but for those who are not, plant biostimulants are a class of crop inputs that include substances such as humic acids, seaweed extracts, beneficial microbials, and protein hydrolysates. These works differently than fertilizers, which provide nutrients directly to the plant and are responsible for supporting 50% of modern crop yield potential, and are distinct from pesticides, which help protect the plant from harmful pests and disease. Uniquely, biostimulants work by enhancing the plant's or the soil's natural processes—boosting nutrient release and uptake, improving stress tolerance to heat and cold, and supporting overall plant and soil health.

For example, Nutrien's Reacted Carbon Technology™ (RCT) product platform encompasses a wide range of complex carbon mixtures that have been precisely designed for specific performance and agronomic benefits. Derived from leonardite, the active ingredients are a complex mixture of molecules ranging in size, composition, and chemical functionality, which provide a range of benefits the to the crop, including improved phosphorus nutrient availability, which can result in higher yields. This is but one example of how biostimulants, along with a sound fertilizer management plan, can drive improved grower outcomes at the farmgate.

Biostimulants can also play a significant role in improving environmental outcomes. Depending on the product and the science of its mode of action, many biostimulants enhance nutrient uptake, reducing nutrient loss through runoff or volatilization and enabling more efficient fertilizer use. Some support plant resilience in the face of extreme weather events such as drought, flooding, soil salinity, or temperature fluctuations—tools that are increasingly vital for our growers to manage their day-to-day operations. It is no surprise the biostimulant industry has grown at a steady 10% compound annual growth rate since 2010.

Despite their promise and innovative potential, plant biostimulants face an outdated and inconsistent regulatory framework. There is currently no Federal definition for plant biostimulants, leaving states to interpret and regulate them individually. This patchwork approach leads to confusion, inconsistent labeling, and barriers to interstate commerce. It creates unnecessary hurdles for manufacturers, distributors, and—most importantly—uncertainty about product use, trial data quality and marketing claims, which could ultimately impact outcomes for growers.

Over the last few years, our industry has worked to address this gap through the adoption of a model "beneficial substances" bill, approved by the Association of American Plant Food Control Officials (AAPFCO) in February 2024. This model provides a clear definition for plant biostimulants, a path to market and has already been adopted or implemented in over a dozen states through legislation or rulemaking.

However, without a Federal definition, inconsistency in evidence-based, regulatory qualification standards, and the risk of misclassification under Federal laws like the Federal Insecticide, Fungicide, and Rodenticide Act,(FIFRA) remains. Biostimulants may be wrongly treated as pesticides or plant growth regulators—delaying innovation, adding unnecessary costs, and creating compliance uncertainty by our state fertilizer regulatory partners.

That is why we are urging support for the bipartisan *Plant Biostimulant Act of 2025,* introduced by Representatives Panetta and Baird in the House, and Senators Marshall and Padilla in the Senate. This bill establishes a science-based Federal definition of "plant biostimulant," aligned with international plant nutrition standards already recognized in the European Union, Canada, and other leading agricultural economies.

The bill will provide regulatory clarity and consistency across all 50 states; ensure biostimulants are recognized as a distinct input category—not as fertilizers or pesticides; help avoid misclassification under FIFRA; allow for the standardization of qualifying evidence for product registration, encourage broader adoption of sustainable farming practices; spur private investment in biostimulant research and development; and most importantly, help the U.S. stay competitive with growers in Brazil, China, and the European Union.

Inclusion of this legislation in the upcoming farm bill would be a major step forward for American agriculture. It supports innovation, sustainability, and the long-term viability of our food production systems and food security.

To remain a global leader in agricultural innovation, the U.S. must adopt a clear and consistent framework for plant biostimulants. I strongly urge the Committee to support the Plant Biostimulant Act of 2025 and include it in the farm bill. This is about more than regulatory alignment—it is about equipping our farmers with the best and most innovative tools they need to meet the challenges of the future.

Thank you again for your time and for your continued leadership in supporting American agriculture.

The CHAIRMAN. Dr. Wyant, thank you so much for your testimony.

Mr. Witherbee, please begin when you are ready.

STATEMENT OF BRYAN J. WITHERBEE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AGRAGENE, INC., ST. LOUIS, MO

Mr. WITHERBEE. Chairman Thompson, Ranking Member Craig, and Members of the Committee, thank you for the opportunity to testify at today's hearing. My name is Bryan Witherbee, and I am President and CEO for Agragene Incorporated.

Agragene is an innovative agricultural biotechnology company working to transform how we manage pest species: sustainably, precisely, and without reliance on chemical pesticides. Agragene was fostered in the vibrant St. Louis biotech ecosystem with early support from BioSTL and BioGenerator, two nationally recognized organizations dedicated to advancing science-driven startups and building next-generation technologies in agriculture, health, and the environment. Agragene is advancing a groundbreaking approach to insect pest control, precision-guided sterile insect technique, or pgSIT, to meet the urgent challenges facing growers today.

Modern agriculture is under increasing stress. Invasive pests, climate-related migration, resistance to pesticides, and environmental concerns are driving the need for safer, more targeted pest control tools. At the same time, the outdated U.S. regulatory system, based on legislation and guidance written decades ago, struggle to accom-

modate modern biological innovations. Our regulators are often constrained by these outdated frameworks, lacking the authority and tools to flexibly evaluate 21st century technologies, even when they offer far safer and more sustainable alternatives to legacy chemical or genetic products.

Agragene's pgSIT technology presents a modern evolution of sterile insect technique, a method used for decades to suppress pest populations like Mediterranean fruit fly and the New World screwworm. Traditional SIT uses radiation to sterilize insects, but this process often causes broad, unpredictable DNA damage, reducing male fitness and performance in the field. pgSIT, by contrast, uses modern gene-editing tools like CRISPR to precisely and reliably edit the genes responsible for fertility and female viability, producing sterile males and only sterile males. These males are healthy, competitive, and self-limiting. When released into the environment, they mate with wild females, leading to population suppression without harming non-target species or leaving behind any residues. pgSIT is species-specific, scalable, and aligned with modern agriculture and ecological priorities.

Agragene's leading application is targeted towards spotted-winged drosophila, one of the most economically damaging invasive pests in soft fruit crops across North America and Europe. The annual economic impact from SWD in North America alone is around $1 billion. Existing control options for SWD rely heavily on chemical pesticides, the average age of the most widely used insecticides by berry growers is over 42 years old. These insecticides must be applied repeatedly, and as a result, SWD populations have developed resistance. pgSIT offers a breakthrough alternative.

To validate our technology, university researchers at land-grant institutions in Washington, California, Oregon, Michigan, and Minnesota are currently conducting performance evaluation under controlled conditions. These trials, in partnership with leading entomologists and public-sector scientists, demonstrate strong institutional support for pgSIT's real-world potential as a safe, effective, and sustainable pest control method.

Despite this progress, regulatory uncertainty continues to limit deployment. Technologies like pgSIT don't fit neatly within categories defined by outdated laws like FIFRA or Plant Protection Act. Current agency guidance does not provide regulators with the flexibility they need to evaluate modern gene-edited tools based on their precision, safety profile, or ecological behavior. As a result, innovators face costly delays, inconsistent treatment, and significant barriers to commercialization, even for technologies that outperform conventional methods in both safety and effectiveness.

Modernizing our regulatory system is not only necessary to bring better tools to growers, but also essential to national preparedness and biosecurity. The U.S. has faced costly disruptive outbreaks of invasive pests such as New World screwworm, Mexican fruit fly, and Mediterranean fruit fly. The next outbreak is inevitable. Without a modern regulatory framework that enables prior approval and proactive validation of precision biocontrol tools like pgSIT, we risk being caught unprepared.

To fix this, we must update Federal legislation and agency authority to reflect the realities of 21st century biology, create

science-based risk-proportionate pathways that recognize the unique properties of biological and gene-edited pest control tools. Enhanced interagency coordination is absolutely critical to streamline reviews and eliminate duplication. And then support field validation programs in advance of emergency needs so that safe, effective tools are ready for rapid deployment when threats arise.

Cost and speed to market is absolutely critical to startup and emerging companies like Agragene. This is truly a matter of survival. Therefore, an efficient, transparent, risk-based system is essential. The U.S. has the opportunity to lead the world in agricultural innovation, but we must equip our regulatory agencies with the modern tools, guidance, and authorities they need to support that future.

Thank you.

[The prepared statement of Mr. Witherbee follows:]

PREPARED STATEMENT OF BRYAN J. WITHERBEE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AGRAGENE, INC., ST. LOUIS, MO

Chairman Thompson Ranking Member Craig and Members of the Committee:

Thank you for the opportunity to testify at today's hearing. My name is Bryan Witherbee and I am President and CEO for Agragene, Inc.

Agragene is an innovative agricultural biotechnology company working to transform how we manage pest species—sustainably, precisely, and without reliance on chemical pesticides. Agragene was fostered in the vibrant St. Louis biotech ecosystem, with early support from BioSTL and BioGenerator, two nationally recognized organizations dedicated to advancing science-driven startups and building next-generation technologies in agriculture, health, and the environment. Agragene is advancing a groundbreaking approach to insect pest control, precision-guided Sterile Insect Technique (pgSIT), to meet the urgent challenges facing growers and regulatory systems today.

Modern agriculture is under increasing stress. Invasive pests, climate-related migration, resistance to pesticides, and environmental concerns are driving the need for safer, more targeted pest control tools. At the same time, outdated U.S. regulatory systems-based on legislation and guidance written decades ago—struggle to accommodate modern biological innovations. Our regulators are often constrained by these outdated frameworks, lacking the authority and tools to flexibly evaluate 21st-century technologies, even when they offer far safer and more sustainable alternatives to legacy chemical or genetic products.

Agragene's pgSIT technology represents a modern evolution of the Sterile Insect Technique (SIT), a method used for decades to suppress pest populations like the Mediterranean fruit fly and New World Screwworm. Traditional SIT uses radiation to sterilize insects, but this process often causes broad, unpredictable DNA damage, reducing male fitness and performance in the field.

pgSIT, by contrast, uses modern gene editing tools like CRISPR, to precisely and reliably edit the genes responsible for fertility and female viability, producing sterile males, and only sterile males. These males are healthy, competitive, and self-limiting. When released into the environment, they mate with wild females, leading to population suppression without harming non-target species or leaving behind any residues. pgSIT is species-specific, scalable, and aligned with modern agricultural and ecological priorities.

Agragene's lead application is targeting Spotted Wing Drosophila (SWD), one of the most economically damaging invasive pests in soft fruit crops across North America and Europe. The annual economic impact from SWD in North America alone is around $1 billion. Existing control options for SWD rely heavily on chemical pesticides, the average age of the most widely used insecticides by berry growers is 42 years. These insecticides must be applied repeatedly and as a result SWD populations have developed resistance, not to mention that these insecticides can cause collateral harm to beneficial insects. pgSIT offers a breakthrough alternative.

To validate pgSIT SWD technology, university researchers at land-grant institutions in Washington, California, Oregon, Michigan, and Minnesota are currently conducting performance evaluations under controlled conditions. These trials, in

partnership with leading entomologists and public-sector scientists, demonstrate strong institutional support for pgSIT's real-world potential as a safe, effective, and sustainable pest control method.

Despite this progress, regulatory uncertainty continues to limit deployment. Technologies like pgSIT don't fit neatly within categories defined by outdated laws like FIFRA or the Plant Protection Act. Current agency guidance does not provide regulators with the flexibility they need to evaluate modern gene-edited tools based on their precision, safety profile, or ecological behavior. As a result, innovators face costly delays, inconsistent treatment, and significant barriers to commercialization—even for technologies that outperform conventional methods in every key measure of safety and effectiveness.

Modernizing our regulatory system is not only necessary to bring better tools to growers, but also essential to national preparedness and biosecurity. The U.S. has faced costly, disruptive outbreaks of invasive pests such as *New World Screwworm, Mexican Fruit Fly,* and *Mediterranean Fruit Fly.* The next outbreak is inevitable. Without a modern regulatory framework that enables pre-approval and proactive validation of precision biocontrol tools, like pgSIT, we risk being caught unprepared.

To fix this, we must:

- Update Federal legislation and agency authority to reflect the realities of 21st-century biology.
- Create science-based, risk-proportionate pathways that recognize the unique properties of biological and gene-edited pest control tools.
- Enhance interagency coordination is absolutely critical to streamline reviews and eliminate duplication.
- Support field validation programs in advance of emergency needs, so safe and effective tools are ready for rapid deployment when threats arise.

Agragene is proud to be part of the U.S. innovation ecosystem working at the intersection of agriculture, public health, and biotechnology. With support from organizations like BioSTL and BioGenerator, and in partnership with leading public researchers, we are demonstrating that sustainable, scalable, and precise pest control is possible. But for these solutions to reach growers and respond to emerging threats, our regulatory system must evolve with the science.

Cost and speed to market is absolutely critical to startup and emerging companies. This is truly a matter of survival. Therefore, an efficient, transparent, risk-based system is essential. The USDA, specifically, has made great strides in reforming regulations for certain new technologies. Now is the time and opportunity to expand both scope and applicability of these changes for other technologies, and for other agencies. A system readily adaptable to new innovative technologies, such as gene-editing and other gene modifications systems, and importantly, not only limited to plants.

The U.S. has the opportunity to lead the world in agricultural innovation—but we must equip our regulatory agencies with the modern tools, guidance, and authorities they need to support that future.

The CHAIRMAN. Mr. Witherbee, thank you so much for your testimony.

At this time, Members will be recognized for questions in order of seniority alternating between Majority and Minority Members and in order of arrival. For those who joined us after the hearing has convened, you will be recognized for 5 minutes each in order to allow us to get to as many questions as possible.

At this time, I will recognize the gentleman from Oklahoma, Mr. Lucas, for 5 minutes.

Mr. LUCAS. Thank you, Mr. Chairman, and thanks to our witnesses for testifying here today.

Mr. Abbott, your testimony touches on the importance of producer choice and flexibility for pest management strategies, yet the EPA's complex regulatory framework often makes it difficult for producers to access new and innovative crop protection products and post-patent products. Can you explain the regulatory hoops that a company like yours has to jump through before a product can hit the marketplace?

Mr. ABBOTT. Thank you, Congressman Lucas. Yes, so we help our customers develop inert systems for their post-patent chemistries that they are actually—so we support and do a supporting role. They ultimately submit, but we do the behind-the-scenes work with them, so we try to make sure that they have everything they need from the confidential statement of formula to everything that they can think of.

Mr. LUCAS. What, if anything, can Congress do to clear up the regulatory burden for innovators and bring products to the market faster? From your observations, what can we do?

Mr. ABBOTT. Well, I thank you for PRIA 5, and that was a great start. We are working towards it with Lee Zeldin coming on board, and we are starting to push through the backlog, but we have a long way to go. I would say we need to be adequately funded. I know you guys have pushed that forward, but we really need you to work with your colleagues, if at all possible, on the Appropriations Committee to try to get full funding because, as of right now, this is the third year in a row we are 20 percent light on funding on the OPP.

Mr. LUCAS. Mr. Witherbee, your company has modernized the sterile insect fly technique to target a pest that is especially catastrophic to soft fruit crops. Your testimony touches on the unique challenges your company faces with regulatory uncertainty, but can you expand on this for a little bit? And as you are thinking about that, does the current regulatory framework incentivize new technologies? And if not, what can we do to help ensure that we incentivize innovative technologies like your own?

Mr. WITHERBEE. I think that is the tough thing is that the legislation that is there has been there for chemicals. We are looking at modern breakthroughs that aren't necessarily there based in plants, or in our case, insects, or even biologicals. Part of it is the framework is not set up to handle those well. The expertise that is available for the EPA and the USDA is very focused on what they used to do, which was a lot of chemical pesticides and insecticides that went through. Updating the talent pool there, as well as the ability to handle some of these new technologies that fit very close, so my example would be that Agragene is being treated as a pesticide even though we are not really a chemical that is being applied to anything. It is a biological material, but it is going down that path. So giving a little bit of flexibility to the people that are in the EPA and the USDA is really important.

Also, because it doesn't fit clearly into any of those categories, we are actually having to go through both the EPA and the USDA for regulation, and part of that is alignment is important. So part of it is that one agency can be a little slower than another and would keep us from getting to commercialization, which with a startup is vital that we get through. We have limited funding. Part of it is needing to get through some of those regulatory processes in order to show the proof of our technology. And that is true of a lot of these different companies.

Mr. LUCAS. Absolutely. Mr. Abbott, turning back to you, your testimony mentions that many post-patent products still face the same backlog of approval at the EPA that the new chemistries face. Can you share with us your perspective on why this is continuing

to occur even when these products have been in use for decades in most cases?

Mr. ABBOTT. Well, where it stands, and as I understand how the system works, they are required to go in through registration as well, so they don't leapfrog. They are still put in the line, and so if there is a backlog already, it is going to continue, right? That is where we are at. So until we get adequate staffing on the OPP, I think you are going to continue to see that be an issue even though it is maybe 40 years of chemistry. Anytime you make a change, it goes into the EPA for re-registration and re-evaluation.

Mr. LUCAS. Thank you. And thank you for the courtesy, Mr. Chairman. I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentlelady from Minnesota, our distinguished Ranking Member, for 5 minutes.

Ms. CRAIG. Thank you so much, Mr. Chairman.

Mr. Witherbee, I am concerned that reduced funding and support for research is going to have serious downstream effects on new products in the private-sector. You noted in your testimony that you work with various land-grant institutions, including the great University of Minnesota. How do these research partnerships work, and how does public funding for research help to catalyze development of innovative private-sector products?

Mr. WITHERBEE. Yes, thank you. Previously, like a lot of these land-grant universities, the professors there are tapped within the state to look at different technologies for their growers within the state. Part of the funding comes from either their ability to apply to the government for grants and/or the university for grants, that money coming, obviously, from what had been funded towards research and science.

The other part of it comes from companies like us. And so, as I mentioned before, part of our innovation of getting products through and showing proof is that we need to attract investors, and investors look at track record and look at how well you have been able to get your product tested and moved forward through regulatory approvals. That is all kind of in a tough state when part of the university funding is held up or from the government based on some of this. And a lot of it is important pieces.

Very similarly, we had talked a little bit about funding towards spotty-winged drosophila, but it is also for New World screwworm, very similar, something that now is important to protect not just for berries but also now cattle and other things. And so these technologies getting tested and approved at some of these universities is really important for preparedness and to be ready to deploy commercially.

Ms. CRAIG. Thank you so much.

Mr. Abbott, in your testimony you noted that Congress has fallen short of the minimum funding level that is set for OPP. You also said that a well-funded OPP benefits everyone. I completely agree. Are you concerned that recent staff reductions at EPA will lead to greater delays in product approval? And do these cuts, coupled with the anti-science rhetoric coming from Secretary Kennedy, create a healthy business environment?

Mr. ABBOTT. The way I understand it, I believe Lee Zeldin is moving the parts around. He is taking one over—because you are talking EPA in general. I am focused more on the OPP side of things where the backlog is, and that is what is important to us. So I believe as long as we can continue to move staffing and full fund the staffing there, that is where we are going to unstick the drain if you will, right? That is where the holdup is on our constituents over here on the post-patent, as well as the multinationals. We are all affected by it.

Ms. CRAIG. And the consequences if we aren't able to fully fund and that gets slowed down, explain that.

Mr. ABBOTT. The consequences are the farmers, in general, they are the ones that pay, right? Who is using the chemistries out there right now? If I go back in my career—and I have been at this for about 29, 30 years—a lot of the chemistries that I started out in my career are no longer there. And that is a good thing because some of them needed to go by the wayside. We have new innovation, new greener chemistries, and it is all around public safety and stewardship and environmental stewardship. So, go ahead. I am sorry.

Ms. CRAIG. No, I was just going to say, is it your understanding that family farmers across this country are committed to good environmental stewardship? I am not sure, is *environmental* a banned word or not. I am going to just——

Mr. ABBOTT. No. Having been boots-on-the-ground and actually talking with and working with farmers for most of my career, it is not a bad word. They understand it, and they were here. They understand if they don't take care of their land, they won't have it. So they really need to take care of it and steward it so it continues to produce.

Ms. CRAIG. That has certainly been my experience with Minnesota farmers. There is no group of people more committed to the land and good environmental stewardship than family farmers across this nation.

So thank you so much, Mr. Abbott, and I yield back, Mr. Chairman.

Mr. ABBOTT. Thank you.

The CHAIRMAN. I thank the gentlelady and now recognize the gentleman from Georgia, Mr. Austin Scott, for 5 minutes.

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

And I can honestly tell you the last thing I did before I left home was to mix 15 gallons of glyphosate, spray a bunch of weeds, and I have been using that product effectively for over 30 years, and I think it is unfortunate what has happened. I think the litigation and the false narrative around that product is something that we need to pay attention to because it has been very effective at taking something that we need off of the markets in the United States, and it is expensive. And farmers don't just buy chemicals for the sake of buying chemicals, right? And the new technology is expensive.

And one of the things I don't think we talk enough about is the land-grant institutions and research, and then the extension that has to come with that research for our ag communities to produce the products that we all depend on being on the shelves when the

other 98 or 99 percent of Americans that aren't involved in agriculture go to the grocery store.

So with that said, and again going back to the land-grant institutions, how can industry and producers more effectively partner with the land-grant institutions to not only accelerate the development of these technologies but to ensure their practical deployment on the farm? And what additional support or policy initiatives might strengthen these collaborations to benefit both the innovation and the extension that is necessary for farmer adoption? Any of you can answer that question, please.

Dr. WYANT. Thank you. That is a great question. I think the first thing that we can do is recognize the role that extension does play in new product discovery, new ingredient discovery, workforce development. I am sure in this Committee, any of you have had a stint in an extension lab at some point doing research or maybe took a class for an extension professor.

So I think recognizing the extension's role in the supply chain process and in the innovation process is key. And I know my extension colleagues, they are sometimes strapped for that funding. They need to do the work, and I think what we could do is help give back to those extension researchers and make sure that they are getting the work done in the field that needs to get done. Thank you.

Mr. CAMERON. In California, we have the University of California, and we have the University of California Ag and Natural Resources Department. We know that the research done on many of the land-grant colleges and universities does get transferred to the growers through the ag extension service. We have relationships with them on-farm, and we actually work with some of the researchers directly with the universities to do cutting-edge technology on our farm so that we can show other people some of the new advances that can be applicable really throughout California and the world. So having the connection between the university and the advisors is critical for getting information out to growers.

Mr. AUSTIN SCOTT of Georgia. Mr. Abbott, I am going to come to you with another question if I can, down to a minute and a half, but I do want to express one other concern that I have, and it is the accumulation of this technology by China through ChemChina. And I think we are being naïve as Americans to think that allowing somebody who is now no longer an aggressive economic competitor but actually an adversary to control the chemicals that we need in the food supply chain, that that is not going to come back to bite us.

Mr. Abbott, in your testimony you provided an overview on the challenging delays occurring at the EPA related to the regulatory review. I know you spoke to this, but with more than $½ billion in post-patent and formulation improvement products stuck in that review, can you elaborate to the Committee why timely access to these innovations is just as important, if not more important, than the new chemistry?

Mr. ABBOTT. Because it puts us in a better spot. We need to remain competitive because otherwise we just hand it over, to your point, the Chinese, right? And they are going to come in and they are going to take no prisoners, so to speak, to paraphrase there. So I think to get our growers in a competitive situation, we need to

make sure we continue to quickly push those through, especially when the chemistries have been around for quite some time.

Mr. AUSTIN SCOTT of Georgia. Yes, sir. Gentlemen, thank you for being here. I look forward to continuing the discussion. Hopefully, we will see bipartisan efforts to solve these problems.

With that, Mr. Chairman, I yield the 1 second.

The CHAIRMAN. The gentleman yields back.

And now I recognize the other gentleman from Georgia, Mr. David Scott, for 5 minutes.

Mr. DAVID SCOTT of Georgia. Mr. Witherbee, excuse my cold, but you all at your firm have been working with the SWD flies for over 15 years. I want to talk about that because they are targeting our blueberries and peaches, and we lead the nation in producing blueberries and peaches. It is our great industry. Over $400 million is what our farmers bring in. And yet many Georgia farmers continue witnessing their crops being infested and destroyed by these SWD flies. I want to talk about that because it is putting both our supply chain and our farmers' income at risk. So can you talk to me about that, Mr. Witherbee? Can you expand on the benefits of Congress helping to grow these public-private partnerships that you are involved with? And can you help us in this area? What are you specifically doing?

Mr. WITHERBEE. Yes, thank you. So actually, we just spoke with a professor at the University of Georgia that we will start to do some testing on blueberries and peaches as well in Georgia here very soon.

Part of the process going forward is that this is, and we talked about chemicals and other things of that nature. This is a safer—people do worry about their community. I had mentioned in my talk that we are dealing with chemicals that have been around for over 40 years. The only opportunity they have, and your growers have, is to continue to spray those. We have built resistance. A lot of those are harmful. Some of those did get removed, and importantly so.

Unfortunately, they have no new tools because it is specialty crops. It is a smaller footprint compared to corn and soybean, *et cetera.* And, the average to create a new active ingredient is 12 years of development and going through a regulatory process and about $300 million, so it is very costly to bring on a new pest chemical.

So technology like ours, which utilizes some of these new modern tools, can allow to make these cheaper. So the government has put in a lot of effort into making sterile insects through different processes, particularly to protect our borders from other invasive species. This is a modern version of it that is actually a lot cheaper to do. We are able to produce more sterile flies than what traditional sterile insect tech can do, and they can be deployed.

Mr. DAVID SCOTT of Georgia. Well, tell me what we can do here in Congress. What existing laws or agency authorities should we in Congress review to better assist our companies, like yours, that are continuing to develop these new and innovative technologies? What can we do to help you here in Congress?

Mr. WITHERBEE. Yes, I think part of that is related to the rules that the regulators are having to go through. Almost all those were

built for chemicals, not for these modern tools, so there is not a lot of flexibility there. As I mentioned before, this biological innovation, which is using CRISPR, which has been shown to be very safe and effective and very precise at gene editing, unfortunately is being treated like a chemical because there is no other legislation that the regulators can regulate to. So we are having to go through things that do not make sense in terms of how long does the fly stay or active ingredients stay? What is the effect on human health when it is not really being applied, or what is the irritant level, *et cetera.* These are all things that are part of the current rules and regulations that they have to regulate to.

Mr. DAVID SCOTT of Georgia. Yes, well, tell me, why blueberries? Why peaches? These are the only two that they seem to be targeting. Is there something about blueberries?

Mr. WITHERBEE. Yes, they are very sweet, and part of it is they are soft-skinned, and so the way these insects affect the fruit is that they lay their eggs by punching holes in soft fruit, laying their eggs in there, and then once their eggs lay, as they develop, the worms eat the fruit, and that would cause them to be infested. We are trying to block that cycle without spraying chemicals.

Mr. DAVID SCOTT of Georgia. So it is really because Georgia's sweet peaches are just so sweet.

Mr. WITHERBEE. That is exactly right.

Mr. DAVID SCOTT of Georgia. All right. Thank you.

The CHAIRMAN. I thank the gentleman from the land of sweet fruit and now recognize the gentleman from North Carolina, Mr. Rouzer, for 5 minutes.

Mr. ROUZER. Thank you, Mr. Chairman.

And as I was sitting here listening to the testimony and some of the questions from my colleagues, it occurred to me, when I was looking for a job, soon to be out of school at NC State University, I was a chemistry, ag business management, and ag econ major. That was a different stage of my life when I was far more intelligent than I am now, and I had a lot of different job offers from ag chemical companies. I say a lot, certainly, as it relates to the number that are in business now. What happened there? Why was there so much—and I think this would just be good for the record. Why has there been so much consolidation? Is it the regulatory environment? Has all this been for the betterment of American agriculture, to its detriment, or a mixed bag? I just throw that out for anybody who might want to answer or take a stab at it.

Mr. ABBOTT. I wish I had an answer because when I started, there was 13 multinationals, and we are down to four, roughly, and one of which I used to work for and now is Corteva. I used to work when it was DuPont Crop Protection. And why the consolidation? I don't have a good answer. I am sure it is somewhere around the regulatory. I am sure it is around their boards looking at financials and making hard decisions on whether or not to continue. I know that doesn't answer your question, but——

Mr. ROUZER. Anybody else have a thought?

Mr. WITHERBEE. Yes, I would tie it to what I had said before. In order for these companies, and even for smaller ones, to come up with a new active ingredient outside of what we know now it is 12 years of development and regulatory approvals going through that

process, so 12 years is a long time, and it is about $300 million. That is a lot of money to cover in terms of what you would have to sell in revenue. It is just not worth it for a lot of them, and so a lot of them consolidate because there is a need to do that for their investors, for the people that have put money into the company.

I think beyond that, looking at then some of the smaller companies like us that have new technologies and other things going through, same kind of thing. It is a tough process to get through the regulatory process. They wait for those to happen and then may work to purchase those at some point, but it has to be proven at that point.

Mr. ROUZER. Yes, absolutely.

Mr. Witherbee, while we are on you, can you speak to the lengths a company like yours goes through to demonstrate environmental safety?

Mr. WITHERBEE. Yes, absolutely. So we are held to the same standard everybody else is, and part of that is, is that there is a series of testing. The rules are what the rules are in terms of chemicals, so we have to prove out that they are not a skin irritant, that they are not going to harm both the environment or human health. You go through series of tests.

The problem is that you can put the data together and provide that in a package, but it is still going to take you 15 to 19 months for the EPA to then look through that, or the USDA, or both in our case. If that happens, then 19 months, 2 years, is a lifetime. It is a lot of money for us to be able to keep up and going while we are waiting for those regulatory approvals. So that process of kind of aligning the folks there, then having kind of a quicker path to say, "Yes, you have met the standard of it is healthy to humans, it is not going to harm humans, it is safe for the environment," and then allow the testing at the institutions to go on, that is the tough part. That waiting period is 3 to 4 years at times. That is just a killer for a company that is living off of small dollars.

Mr. ROUZER. Yes, absolutely. So just for the record, I have introduced the Reducing Regulatory Burdens Act (H.R. 3824, 119th Congress; H.R. 5089, 118th Congress) the last two Congresses to end EPA or states from requiring permits under the NPDES' program for discharges of registered pesticides if they are used for their intended purposes and in compliance with their pesticide label requirements. Do you think that is a good bill or not a good bill?

Mr. WITHERBEE. It is a good bill if we can define what a *pesticide* is, and so right now, that *pesticide* is being defined as a chemical. A lot of the folks here are dealing with things that are not just chemicals. We are dealing with whether it is bacteria or insects or other soil treatments, *et cetera.* So if it is not a chemical, then that applies across the board, and that is what we are kind of looking for help with.

Mr. ROUZER. Yes. Well, I have only 13 seconds left, so I will yield my time. Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman. I now recognize the gentleman from California, Mr. Costa, for 5 minutes.

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

I want to dig a little deeper in terms of a part of a conversation that we have been having on public-private partnerships and investments in our land-grant universities and our state universities as a part of that public-private partnership for research in agriculture. As I said, change was constant.

Mr. Cameron, you have been one of the innovative farmers and are a role model, and you have done a whole host of efforts as it relates to using various efforts to reduce the use of pesticides. And I would like you to comment in terms of the importance of that partnership with our research with not only the USDA but the California State Department of Agriculture, our land-grant universities, Cal State University, our field stations that are at the cutting edge of developing these new efforts to have more drought-resistant crops, those that are less determinant on pests, more pest-resistant plants, and the critical importance. I have been critical of this Administration this year in their reduction of funding for these kinds of programs, some that have been in efforts for several years. Could you care to comment?

Mr. CAMERON. Thank you, Congressman.

We know that there had been Federal funding frozen on 5 year projects, one at UC Merced. They were 2½ years into the project. Their funding stopped. They didn't know what they were going to be doing. This was critical to farming in California. It was water-related. Fortunately, their funding came back, and they are going to be able to finish their project.

But we have seen where cuts have been made, projects have been stopped in their tracks, and the uncertainty that that brings is really devastating to the research that they are working on, and ultimately to the growers within California and the U.S.

Mr. COSTA. Do you think it would be helpful if we attempted to try to find an effort to figure out how many of these programs throughout the country are being taken in which sound research, sound science is taking place, and we are abruptly canceling these efforts that are critical to the future of American agriculture?

Mr. CAMERON. Absolutely. We know that the research that we are doing today is going to be the technology of our future. If we hold back on agricultural research, that hurts all of agriculture. It hurts the community. It hurts the whole process of food production. So anything we can do to maintain funding for serious agricultural research, we need to be on that. We don't want to get behind. We know other countries are moving ahead rapidly with technology and innovation, and I think we should be the leaders in the United States.

Mr. COSTA. Well, and with climate change and other factors we are dealing with, food, again, is a national security issue, and it will only grow in importance in our ability to compete.

You have a particular experience with the *Lygus* outbreak and Pima cotton and the lack of effective tools that were engaged in research. This is just one pest. There are others who have mentioned it. The dialogue between the Environmental Protection Agency and the California Department of Agriculture Pesticide Research was trying to develop sustainable crop protection. What happened when there was a disruption that took place in the efforts to pursue this effort on *Lygus?*

Mr. CAMERON. There was a situation in 2023 where *Lygus* became an extremely important pest in cotton production. It caused the bowl of the flower to drop off. Hence, you lose production. There was a product that was registered throughout the other states. It actually had a lawsuit against it in California. It was brought back in. It still doesn't have full registration. There was an emergency exemption in 2025. But in 2023, California Pima cotton growers lost $41 million of production in just 1 year due to one pest.

Mr. COSTA. My time is expiring, but quickly, California has among the strictest pesticide and herbicide regulations in the country. The efforts to harmonize our own state regulations with the Federal protocol, are we having any success there?

Mr. CAMERON. We know that the Federal EPA and the California EPA, Department of Pesticide Regulations, are both overburdened, trying to get new registrations since we have dual registration. We need to coordinate. California needs to coordinate with the Federal EPA so we have dual registration going on at the same time parallel registration. Thank you.

Mr. COSTA. Thank you.

The CHAIRMAN. I thank the gentleman.

I will recognize myself for 5 minutes of questioning.

Mr. Cameron, it is good to see you again. Your testimony highlighted the importance of crop protection products and the rigorous regulatory framework the EPA carries out to ensure these products are safe when used as directed. Under the Federal Insecticide, Fungicide, and Rodenticide Act, Congress has prohibited states from imposing additional or different labeling and packaging requirements beyond the Federal standards. Unfortunately, there has been misinterpretations related to this policy which could eventually lead to an unworkable patchwork of state regulations or growers losing access to products altogether because of litigation.

As a grower in California who relies on these products, what impact would it have on your operation if you were to lose access to products if Congress does not act to clarify that statute?

Mr. CAMERON. Mr. Chairman, California many times is at a disadvantage because we have dual registration. Products may be available across the state line that aren't available within our state. So if you have growers growing the same crop in two different states, if you are in California, you don't have the same tools to be able to move forward and protect your crop, and many times it may be a safer material, a less expensive material. We know costs of growing in California are extremely expensive and highly regulated, so the patchwork that we see going on tends to put our growers at a very strong disadvantage. We would love to see uniformity throughout the United States on labeling requirements.

The CHAIRMAN. Well, thank you, sir.

Mr. Abbott, much of your testimony was focused on the need for a well-functioning EPA Office of Pesticide Programs. It seems that over the past few years, the EPA has been slow to register new chemistries which are of critical importance to growers who need every tool that they can get to control damaging pests, weeds, and diseases. What actions should Congress consider to support a more efficient, science-based EPA regulatory process that fosters innova-

tion and ensures growers have access to safe, effective crop protection tools?

Mr. ABBOTT. Well, if I might, going back in the history of my career, I saw resistance firsthand, so I think it is important that we fund the Office of Pesticide. You have heard me say that already, and I think it is crucial that we continue to make sure those dollars funnel down to adequate staffing so we can push through those regulatory hurdles because ultimately the grower pays for it, right? You have the ag value chain. Yes, we are all involved in that from the manufacturers all the way to distributors, but the growers are the ones that are suffering, and ultimately, that translates down to us as the consumer. If they can't grow the food, we can't buy the food.

The CHAIRMAN. Well, thank you, Mr. Abbott.

One of the key drivers of innovation in agriculture, particularly as we look at the inputs that producers rely on, is having a regulatory system that is predictable, science-based, and timely. To any of the panelists, can you discuss how having a well-functioning regulatory framework enables companies to invest in research and bring new products to the market more efficiently? And what are the potential consequences for farmers and the broader ag industry if regulatory delays, inconsistent policy, or politicized decision-making begin to erode the certainty that innovators rely on to develop these tools? Do any of our panelists care to respond to that?

Mr. WITHERBEE. Yes.

The CHAIRMAN. Mr. Witherbee?

Mr. WITHERBEE. I think having it being predictable, meaning that we understand the time frames that really let you allow for what money is going to be needed in order to get a new concept through the regulatory process and then out into commercial viability. Part of that would be very predictive in terms of, you have provided all the science and all of the requirements to the different agencies that they can go through and check that and that you know that that is going to happen in a timely 6 month period or something to that effect. Right now, it is often paused and left to different timelines, and so now you are left trying to figure out do I need to have enough money to keep the company alive and the focus alive for 18 to 24 months instead of just 6. So I think having that predictability is important for helping us understand what it is going to take to get innovation across the line and out to the growers.

The CHAIRMAN. In the little time I have left, anyone else care to weigh in? Mr. Cameron?

Mr. CAMERON. Yes, I think the delays and the expense that go along with it prohibit small and medium startup companies from getting engaged and getting products to the finish line. They may have excellent products moving forward, but they don't have the capital, as you have heard, to go through the long waiting period of getting products to market. Thank you.

The CHAIRMAN. Which may certainly lead to consolidation as well that we touched on.

Mr. CAMERON. Exactly.

The CHAIRMAN. Thank you.

I am now pleased to recognize Mr. McGovern for 5 minutes.

Mr. MCGOVERN. Well, thank you very much, and I appreciate the witnesses' time, and I have learned a few things during the testimony, but I don't have any questions for them directly.

I want to express some frustration not with you but kind of with this Congress. I am worried about where Congress is going, and I have to be frank. I think this hearing smells like cover for what Republicans on this Committee actually want to do about pesticide policy. It is not the kind of innovation and precision that some of our witnesses touched on. They are pursuing toxic substance deregulation and liability shields for multibillion-dollar corporations. Look at what is happening right now in the Interior Appropriations Committee. And they don't want some of their voters who care about pesticide reform to know that is what they are after, so we are having a hearing to make it look like we are all on the same page.

Look, we use over a billion pounds of pesticides in this country every year. And look, I understand why that is important. I visit my local farms regularly, and we talk about the challenges that farmers face while protecting their crops. And I am not interested in telling farmers how to do their job, but I am interested in protecting those farmers, their families, and their employees from clear and present danger. They need to know that the inputs they use aren't going to make them sick, and it is our job to set up a system that takes that burden off their plate.

Fully ⅓ of pesticides used in the U.S. are banned in other countries, in Europe, in Canada, and even China and others because rigorous independent science has confirmed that they present an unacceptable risk to human health. And I have been working on reasonable pesticide reform for a long time. I think that is the direction that we ought to move in, but that is not where we are at.

But I just want to say something else in terms of expressing my frustration. Mr. Chairman, last Friday, my colleague from Massachusetts, Ayanna Pressley, and I attended a listening session sponsored by an organization called Project Bread on SNAP with local and state government officials, leaders of nonprofits, but most importantly with people with lived experiences.

Food insecurity and hunger is on the rise in this country, and people are really worried about the impact that this big, ugly bill that has just been signed into law is going to have on them. We ought to be doing a hearing on that right now, what the impacts of the big, ugly bill are going to be in terms of hiking up food insecurity and hunger in this country. People are struggling, they are working harder than ever and having difficulty putting food on the table. SNAP recipients are increasingly relying more on food pantries, on food banks, on faith-based organizations to make sure that their families have enough to eat.

They made it clear that the benefit that currently exists, which is about $2 per person per meal, is not enough, and they expressed horror about what is coming as a result of the legislation that this Congress passed. I mean, state officials are worried about how they are going to deal with the added burden, hundreds of millions of dollars in additional responsibility to make sure people in their states don't go hungry. They don't know how they are going to do

it. And we talked to grandmothers and single parents and workers who think that Washington doesn't care.

Look, this Committee is responsible for the cuts that are in reconciliation with regard to SNAP. And I have to be honest with you, we can't have business as usual. We can't make believe like there is no big deal, that everything is just going to work out because it is not.

And I have been reading talk about a new farm bill and about how we are going to throw a few sweeteners here and there to try to see whether we can pass a farm bill. I don't know how we can move on a farm bill unless we fix reconciliation. I, speaking for myself, do not want to be complicit in covering up a Republican strategy that will dramatically increase food insecurity and hunger in America.

I think it is important for this Committee not just to move on. I think it is important for people to demand answers and to try to find solutions about what we are going to do when people lose their benefits. And again, working people who are on the benefit right now can't make ends meet. And single mothers and grandmothers, we heard the testimony, it is heartbreaking. If you have ever met a hungry child in this country, it breaks your heart.

And I worry very much that as a result of what this Congress has done, what Republicans and Donald Trump have done, we are going to see a huge spike. It is unacceptable. We cannot have business as usual. We ought to be doing hearings on that, and we ought to be figuring out a way to fix reconciliation. It was rushed through. There is new policy that we had no hearings on. We need to do better. And I urge my colleagues, again, to prioritize the issue of hunger and food insecurity, which is getting worse.

I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentleman from California, Mr. LaMalfa, for 5 minutes.

Mr. LAMALFA. Thank you, Mr. Chairman.

That is interesting that we now have to fix reconciliation, which the root problems were the taxes increases that were going to happen on middle- and low-income families, especially, had that not happened, as well as a secure border and the costs of an unsecure border to our country, as well as getting at trying to tame a $2 trillion annual national deficit, all right? So when do we ever start doing that? When do we ever start rectifying that kind of overspending and what that does to our national debt and our ability to service that debt if interest rates were to ever go up dramatically?

So we talk about people having trouble making ends meet. And I, as a farmer on a farming operation, have witnessed firsthand just three seasons ago when the price of fuel doubled and the price of fertilizer tripled, the price of our pesticide materials increased dramatically. Where is that going to come from? Is it going to come from the farmer taking less profit or the trucker who hauls that or the fertilizer? None of those people, the miller, nobody is going to take less. That is all going to have to come finally at the end of it, at the bottom line, at the supermarket where people buy the products we grow. Otherwise, if any of those people in that chain

are in the red, the trucker, the fertilizer salesman, the farmer himself, then it is not going to be around very long.

So what is the root problem in costs for families of buying food, of keeping food on the table? Inflation, energy, the prices of everything in that chain. Energy, taking the tilling of the ground in the spring, the truck that brings the seed to the field and the truck that hauls the grown product away. That is the big problem here, and it is not going to be fixed by government trying to throw more money at programs, so it needs to be looked at right here with the cost of doing business driven by government, by regulation, by taking away materials.

And the pesticides themselves, every generation is one that is working even better to be environmentally clean, environmentally sound, one that has a hold period that the dissipation of it is completely gone by that. They are doing amazing things with every new generation of pesticides, yet it is made to sound like we are poisoning everybody if you are using any of these materials, which really it boils down to they do have a purpose, anything ending in the word *-icide* is to kill a weed or an insect that you don't want in there, right? So it comes down to the proper handling and application by following the label that the EPA has approved.

So let me drill down on the EPA. Mr. Abbott, delays occurring at the EPA in the regulatory review process, my notes say that we have at least $½ billion in post-patent and formulation improvement products that are sitting there waiting in review. Can you talk a little bit about the timely work in these innovations that is as important as the chemistry itself?

Mr. ABBOTT. Let me just understand the question. So you are looking at the innovation. As far as what we do as a company—and it goes back to my testimony within Adjuvants Unlimited here, right—we try to improve upon the formulations that are out there. Some of these are becoming more novel as well, even though you take some of the older chemistry and you improve on the formulation, and it is going to actually do a better job killing the weeds, right? Because dead weeds don't breed resistance. It is half-dead weeds that all of a sudden they can reproduce, and then you have a problem, so it is——

Mr. LAMALFA. Yes, dead men don't talk, dead weeds don't come back, right?

Mr. ABBOTT. That is correct.

Mr. LAMALFA. Okay. Mr. Cameron, as a fellow Californian, certainly, you have experienced a lot of the laughs and fun that I have as a grower as well. We are in the rice business. We may not have as tough as some of the row crops and such, but in your testimony you had mentioned that consumers demand blemish-free products, and that is kind of a sidebar thought for me. If the product has to be that perfect, what is that doing to the level of effort that farmers have to put in to make sure that product is perfect instead of maybe slightly blemish-free like you might get at a farmer's market or off your own tree, for example?

Mr. CAMERON. Right, it puts additional stress and additional financial weight on having a product that looks good in the market, no question. Consumers have preferences. I know when I go to the store, being a farmer, I can usually pick out probably the sweetest

and the best-looking fruit, but most consumers look for certain qualities of unblemished, high-quality fruit. And to do that, it takes additional cost.

Mr. LAMALFA. A much higher level of effort to have that perfect fruit instead of pretty darn good fruit, right?

Mr. CAMERON. Yes, no, we grow many crops that are processed where the quality has to be good but not perfect.

Mr. LAMALFA. Yes. Okay. I appreciate that.

I yield back, Mr. Chairman.

The CHAIRMAN. The gentleman's time has expired.

I now recognize Ms. Adams for 5 minutes.

Ms. ADAMS. Thank you, Mr. Chairman, and thank you to the witnesses for being here today.

I would first like to make a statement about how deeply concerned I am with the Trump Administration's handling of pesticides. In May, the United States Department of Agriculture published a final rule removing the requirement for applicators to report their use of restricted-use pesticides, or RUPs. This rule was issued without a public comment, without period or notice, and it means that effective July 11, 2025, farmers and other private applicators are no longer legally obligated to record critical information such as the pesticide use, application date, amount, location, and the crop treated. And this is troubling because the Environmental Protection Agency classifies certain pesticides as restricted use when they pose serious health and environmental risks if not handled with strict precautions. The EPA's list of RUPs spans 45 pages, and it includes substances linked to severe issues such as Parkinson's disease, birth defects, and other chronic conditions. In the USDA's final rule notice, agency officials dismissed these regulations as "not a priority" and states that to the extent that there is any uncertainty about the costs and benefits, it is the policy of the USDA to err on the side of deregulation.

But the truth is, regulations protecting human health and the environment should be strengthened, not eliminated. Growing and harvesting food should be a safe and healthy experience for everyone involved, from farm to plate. Farmers and farmworkers must be able to trust that the tools that they use do not threaten their health, their communities, or the ecosystems that sustain their livelihoods. And families walking up and down the aisles of grocery stores should be able to trust that the products on the shelves are safe to consume.

Mr. Chairman, I would like to submit for the record the *Rules and Regulations* section of the FEDERAL REGISTER, which speaks to the use of pesticides by certified applications.

The CHAIRMAN. Without objection.

[The *Federal Register* Rule referred to is located on p. 75.]

Ms. ADAMS. Thank you.

Let me continue by saying that an increase in resistance to pesticides means that pests are developing the ability to survive exposure to pesticides that were previously effective. This is a significant concern in agriculture and public health, as it can lead to crop losses, disease outbreaks, and the need for more potent and potentially harmful chemicals.

Mr. Witherbee, we have seen an increase in resistance to pesticides over the years with limited new chemical development. So can you speak to how technologies such as Agragene's improve our ability to fight pests and limit chemicals in the environment?

Mr. WITHERBEE. No, thank you. So part of the technology, in particular to Agragene, development of using sterile insects, would also then be very effective against resistant populations. You start to decrease those resistant populations, so you start to get rid of those, which would also make chemicals more effective. Part of it would be kind of the carry-on effect of reducing the amount that needs to be used, also taking advantage of new technologies that are maybe a little tougher for insects or pests to build resistance against.

Ms. ADAMS. Okay. Would anyone else like to respond? Yes, sir. Go ahead. You have 50 seconds.

Mr. CAMERON. All right. We use a lot of different technology on farm. We use pheromone for mating disruptions. We use sterile release of moths to prevent mating of a navel orangeworm so that we don't have to spray as often. In California, we have a system. We actually are required to, for any restricted material, put a notice of use, and it is reported via a website. The location is within 1 square mile of the application, and there are notifications that are sent via email, text, or other ways to anyone who is interested in any restricted material applications in their area. So we have been very proactive in California to put this in place.

Ms. ADAMS. Thank you, sir.

Mr. Chairman, I yield back. Thank you, gentlemen.

The CHAIRMAN. I thank the gentlelady.

I now recognize the gentleman from Iowa, Mr. Feenstra, for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Thompson and Ranking Member Craig. Thank you for the witnesses for coming today.

I am in the second largest ag district in the country, probably number one in corn and soybeans. And, when we look at feeding the world, we need to create some of the safest and most affordable food, fuel, and fiber, and we are currently doing that. I am very grateful for all that you have noted.

These tools go through robust science- and risk-based regulatory processes and ensure safety for human health and for our families and for people around the world. And I would like to just talk a little bit about this, of how we can get to the next level, right? We know from the past what we have used, but now when we start looking at FIFRA, a science-based process to regulate distribution sale and the use of pesticides to ensure human and environmental safety, and then you have PRIA, who establishes a fee-based system to support timely review of pesticide registration. So these are two significant tools that we use to review and create science-based, safe production of product.

So my question is this. We saw pesticide registrations fall more than 70 percent over the last several years. And by the way, I talked to Administrator Zeldin from the EPA, and he is very well aware, and he said, Randy, we have to do something about this. This is ridiculous that we are far behind. I mean, these are great tools that are on the forefront, but they are not out there yet.

So I want to talk to Mr. Abbott first. What are your thoughts on this? How does this affect the current farming community when it comes to crop protection tools and safety and how we can look forward?

Mr. ABBOTT. Well, as I have already previously mentioned, they pay for it, right? And they are looking for tools to manage resistance. They need to rotate, right? I will use fungicides. If you continue to use the same fungicide over and over, you are going to develop a resistance at some point. So in order to avoid that, you need to rotate, and that is where the different tools come into play.

Mr. FEENSTRA. Right. So there is new cutting-edge tools that are on the forefront. I mean, you start looking at that, what that means. Less product going in the air, in the water, and all this stuff. Can you elaborate on that a little bit of what is out there?

Mr. ABBOTT. Sure. Well, I will go from the adjuvant side of the thing, right? What you are adding to the tank, besides the pesticide, the active ingredient, how do you make it work most effectively? And that is managing drift. That is also making it more effective, getting into either the plant tissue or the insect, soft-bodied, whatever it is. It is influencing that tank mix to a positive effect, right? You want to make sure—we talked about dead weeds, right? You don't want to have to respray. That is where you get more chemicals on there so it is about managing that.

Mr. FEENSTRA. That is right.

Don, do you want to expand on that at all?

Mr. CAMERON. Our toolbox is limited. We have had fewer products to use that are effective, and as we said, it creates resistance issues. We need to rotate chemistry. I feel that we have great products in the wings ready to go, and we don't have access to them.

Mr. FEENSTRA. I agree. I agree. It is frustrating.

Mr. CAMERON. We need to get them out.

Mr. FEENSTRA. Yep. Now I want to talk about maximum residue levels. This has always been a top issue when we start thinking about health and safety and the global supply chains. When we start looking at international trade, they always talk about maximum residual levels and where it is at and where it needs to be. Mr. Abbott, could you talk about the robust processes that go into setting the maximum residual levels at the EPA? How does this work, and why this is so important when it comes to our export markets?

Mr. ABBOTT. I can just speak from experience. I am not an expert in that field by any stretch of the imagination. But in my career, I have had to deal with the MRLs, right? And different countries have different levels, and different active ingredients have different levels. And they are rigorously followed, and it goes all the way down from the producer to the co-packer, and it follows all the way through the supply chain.

Mr. FEENSTRA. Yes, it does. I mean, it is very well thought through of where it goes, and I mean, it is all identified.

Yes, Don?

Mr. CAMERON. We have certain products we grow that if they are going to be exported to, let's say, Japan, we have restrictions on products that we can put on the crop.

Mr. FEENSTRA. That is right.

Mr. CAMERON. It kind of limits us. But we see that in several of the different commodities we grow. The MRLs hold back the use of certain products that we need.

Mr. FEENSTRA. Yep. I hear you. Thank you, and I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentlelady from the Buckeye State, Ms. Brown, for 5 minutes.

Ms. BROWN. Thank you, Mr. Chairman.

For generations, farmers have fed and fueled this country, all while navigating uncertainty from extreme weather and labor shortages to market volatility. It is our job here in Congress to ensure farmers have the full range of tools they need to meet these challenges head on. One of the most important tools in their toolbox has been pest control products. When used safely, legally, and effectively, they protect our crops, preserve yields, and secure our nation's food security. And that is why we have a strong and science-driven regulatory system, a system built on rigorous standards, not rhetoric, a system founded in fact, not fear, and a system informed by stakeholder input, not political agendas.

Unfortunately, that brings me to the Make America Healthy Again movement, the MAHA report, released earlier this year by the Department of Agriculture and the Department of Health and Human Services. By USDA's own admission, farmers and other key stakeholders did not have input when it came to this report. The report contains broken citations, misleading claims, and appears to cherry-pick data while ignoring the longstanding science-based framework that governs crop protection tools.

Mr. Abbott, you noted in your testimony that the MAHA Commission's report "undermines trust in the regulatory process by citing unverifiable sources; omitting key stakeholder voices, including farmers, food producers, and scientists; and making sweeping claims not grounded in the science or structure of the current system." I agree. If we are going to trust the science, we need to know that we are operating from the same set of facts.

Moving forward, what would you like to see from the commission to restore credibility and demonstrate that it is engaging in an honest scientific process?

Mr. ABBOTT. I am assuming it is me you are talking to.

Ms. BROWN. Yes.

Mr. ABBOTT. Okay. I would like to see that—once again, we are founded in science-based. We all up here on this panel and people we work for believe in the system, right, when it works. We want to make sure that we are adequately funding, and I keep hammering that because we are not adequately funding to get the science that we need and the products out the door for the tools for the farmers. So I really would say that we need to make sure that we are founded in science and we continue to do that. And I agree wholeheartedly with you, we don't want to make this a political issue.

Ms. BROWN. Thank you. The MAHA report also calls for more research into health impacts of pesticides and other crop protection tools. But at the same time, the President has proposed a budget that poses significant cuts to agriculture and public health research programs that are essential to answering those very questions.

How can we take the report's call for more science seriously if this Administration seeks to defund the very institutions needed to produce it?

So Mr. Witherbee, how important are Federal research dollars to ensuring that our regulatory process remains grounded in sound, up-to-date science?

Mr. WITHERBEE. Well, I think part of it, first of all, is just making sure that you have the best scientists that are part of that regulatory process reviewing these, that they are up-to-date on modern technologies, that they have had a look at this, and that they have the opportunity to quickly review and understand the safety and the environmental impacts to some of these new technologies, that alone.

And then, we have land-grant universities and folks that are there to test some of these new properties. Part of it is getting through the regulatory process in order to enable that testing to be done. That also requires dollars to do some of that testing at the universities. So funding part of that research is vital to building up our scientific knowledge and our understanding of some of these new technologies and how quickly we can get them through some of those regulatory resourcing in order to have the appropriate people in place to allow these new technologies to get through in a timely manner is important.

Ms. BROWN. Thank you so much. Sound policy starts with sound science, and that means trusting the facts. Please know that I am committed to working with my colleagues to support the next generation of crop protection tools grounded in research and innovation so we can build a food supply that is not just safe but more resilient and secure for the future.

And with that, Mr. Chairman, I yield back.

The CHAIRMAN. All right. I thank the gentlelady and now recognize the gentleman from Alabama for 5 minutes.

Mr. MOORE. Thank you, Mr. Chairman, and I appreciate all the witnesses being here today.

Ronald Reagan had a saying. He said, "The government's idea on the economy is when it is moving, you tax it. If it keeps moving, you regulate it. And if it fails, you subsidize it." And very often we see regulations being a huge problem and an inefficiency in government.

So with that, Mr. Abbott, you testified that more than $½ billion worth of your members' products are currently delayed in EPA's regulatory review process, products that include both post-patent tools and adjuvants critical for crop protection. Can you explain how this backlog is affecting grower access to proven technologies and what consequences that has on production efficiency and cost?

Mr. ABBOTT. Well, as I mentioned already before, it puts a tremendous strain on the tools that are already out there, right, so they need to have access to those tools from a rotational purpose and to continue to apply the adjuvants that are part of that tank mix as well, and they need to have timely access to those as well.

Mr. MOORE. Somebody mentioned earlier that there is just like a chemical. It has already been approved, but somehow it is still backlogging the process. Is that the case too as well? I think one of the witnesses mentioned that earlier. Are you all familiar with

something that may have been approved that is still being held up because it is in some sort of new technology, anything like that? Maybe I misunderstood when I heard that. But, yes, the regulatory environment is certainly crippling, and we get that in business. I grew up on a row crop farm.

Mr. Witherbee, the technology has changed dramatically. I can remember standing in a peanut field.

Mr. Cameron, you may have seen one of these, an old span sprayer, where the product was in the tank and you literally just sprayed it out across the field. And so I think we were spraying Bravo for leaf spot at the time, and I remember my dad and uncle complaining about how expensive that stuff was. I can't imagine what—they were always griping about cost and farming, and we always are, right? But with inflation and the restrictions now that government tends to put on production, it is certainly harassing.

But, Mr. Witherbee, I am going to move to you for a second. You mentioned that without updates to our regulatory system, the U.S. risks falling behind in sustainable pest control innovation. What would that mean for American growers and our agricultural competitiveness if the technology like pgSIT were delayed or even possibly adopted in competing markets, say, in China, Brazil, or the EU?

Mr. WITHERBEE. I think that is the tough part is that we already do see some of those technologies going to South America and others because the regulatory environment moves a little quicker and able to get those out in the fields, and so you are allowed to do some testing there. So we are already behind in some aspects. The other part of it is that those innovations are stopping from getting to the growers, and the growers, most of what we work on here is trying to make the cost of doing—we know that our product has to be cheaper. That is important to the growers. We also know it has to be safer. So we are all working on safer, cheaper innovations that can go out there to the grower. Unfortunately, they are just not getting there because we can't get through that regulatory process.

Mr. MOORE. The regulatory process in the U.S., how does it stack up compared to some of the other countries on timelines?

Mr. WITHERBEE. The timelines are a little longer. I think the part is that it is hard to judge because there are certain things that say there are timelines, and you do pay money into going into those, but you often get delayed or there might be not enough staff, and so you are kind of left to guess that you are going to hit that timeline or not, and then there is extensions. So it is unpredictable.

Mr. MOORE. It probably takes a long time to just get an extension, doesn't it?

Mr. WITHERBEE. Absolutely.

Mr. MOORE. I can't imagine. So yes, when I was first out of college, I worked with Elanco Animal Health, and I think it was 12 years then. If we found something that we thought might work, the science behind it was pretty darn good. It would take us 12 years to actually get that to the market. So I think that is about the timeline you are looking at now. You say 12 years possibly to get something. If you find something that might be good for the grow-

ers, it takes maybe 12 years now. Is that kind of the timeline for here in the U.S.?

Mr. WITHERBEE. Yes, it is from development through registration into hands, about 12 years and about $300 million.

Mr. MOORE. It is tough to cash-flow for 12 years, guys, if you haven't got a product.

Go ahead, Mr. Cameron. I have about 40 seconds. I would love to hear from you.

Mr. CAMERON. I will talk quick.

Mr. MOORE. Since you are from California, we want to hear from you too.

Mr. CAMERON. No, we see that Brazil is taking the lead in biological use on farms, and their government has partnered with the companies that are producing this to get the product in the field to the growers. I am leaving Saturday to Brazil for a week with the Secretary of Ag out of California. We are going to see what they are up to.

Mr. MOORE. It would be nice if government would come alongside instead of riding on our backs sometimes, guys. I appreciate it.

I will yield back, Mr. Chairman.

The CHAIRMAN. I thank the gentleman, yielding back.

I now recognize the gentlelady from Kansas, Ms. Davids, for 5 minutes.

Ms. DAVIDS of Kansas. Thank you, Mr. Chairman, and to our Ranking Member, Ms. Craig, for holding this hearing today.

Protecting the integrity of our agricultural supply chain from pests and animal diseases is critical not just for our economy but for our health and for our national security. From the fields where farmers work hard to protect their crops to the grocery store where Kansans are already stretching their budgets to feed their families, we see just how deeply interconnected food security and national security really are.

I know we have said it a lot of times in this Committee that food security is national security. That is why investments in agricultural research are so important. These innovations help farmers and ranchers produce more. We have heard this multiple times today. These innovations help farmers and ranchers produce more, waste less, and improve the nutrition and safety of the food that we eat.

In Kansas, innovation in agriculture means that our farmers can feed the world while keeping costs down, something that directly impacts families at the grocery store. And that is especially important right now. Between 2020 and 2024, retail food prices went up more than 23 percent. Families are feeling those price increases acutely.

Mr. Witherbee, in your written testimony, you mentioned the New World screwworm. Its continued spread could absolutely severely impact our cattle producers and even pose risks to humans. Can you talk a bit about how innovative tools to fight pests like the screwworm can help protect our food supply and, more broadly, the agriculture economy?

Mr. WITHERBEE. Yes. So in particular with New World screwworm, one of the key pieces that we use to fight that is sterile insect technique. It has been around for 60 years. It is effective.

But we haven't tried to improve upon that, and that is what part of the technology changes there are. There has been other groups that have developed lines that could cut the cost of production, which, when we start to see a national emergency, all of a sudden the costs are very significant. Part of that is adoption of some of these newer technologies are not just because they are effective, but they are also maybe cheaper and a better manufacturing process to get to that.

Investment into some of those technologies that allow for us to get to the same kind of control and the same kind of agents but at a cheaper cost and at a quicker timeline are important as well. And those are things that often go neglected because it hasn't become a problem yet.

Ms. DAVIDS of Kansas. Just really quick, are those competitors or the people who are coming up with this at a more efficient cost, are those international companies or——

Mr. WITHERBEE. That is here in the U.S. too, and in most cases we are stuck in the regulatory process or approval process.

Ms. DAVIDS of Kansas. Okay.

Mr. WITHERBEE. Things like invasive species are tough because it is tough to get permission to work on invasive species in the U.S. as well. Obviously, they are not introduced here, but it is one of the things we are worried about protecting. So partnerships with the government, USDA, other institutions are really important, and so part of that funding is needed to allow for these private and public partnerships to get these done, and not just to utilize old technologies but to adopt some of these new technologies towards these problems.

Ms. DAVIDS of Kansas. Yes. Well, thank you. I am going to switch gears. In addition to livestock, Kansas is a top wheat producer. We grow about ⅕ of all the U.S. wheat in our state, and Kansas farmers deal with tough growing conditions. And winter wheat, especially when used in sustainable rotations, can offer serious soil health benefits. It does help prevent erosion, conserve water, it moderates soil temperatures, and suppresses weeds. Encouraging cover cropping and conservation practices can strengthen the long-term health of our soil.

Mr. Abbott, I was hoping to hear from you. I know your testimony outlined some ways to help farmers adopt these types of practices. Can you share a bit about how you think the Federal Government can help support farmers in making those transitions to those other practices?

Mr. ABBOTT. Well, just like the NRCS, recognizing adjuvants and giving them credit for that. We have been in discussions with them, and we could use your help to help push those colleagues along because we want to get that point system and give adequate credit to there. Now we are working with the scientists, and our folks on the data side are supplying what they are asking for. But really and truly, that is how we are going to get to the next level on a conservation aspect.

Ms. DAVIDS of Kansas. Thank you. And thank you to all of our witnesses for taking time to be here with us.

Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentlelady.

I now recognize the gentleman from Minnesota, Mr. Finstad, for 5 minutes.

Mr. FINSTAD. Thank you, Chairman Thompson. I really appreciate you holding this important hearing today, and thank you to our witnesses for being here and for everything that you do for the ag industry.

As a fourth-generation farmer from southern Minnesota, I raise corn, soybeans, and kids, my seven kids, the fifth generation, God willing, that will take over our farm someday. I really appreciate hearing your testimony.

A couple thoughts that I have here really around innovation and precision agriculture. As someone who has watched the evolution of my family farm over generations, everything from the moldboard plow to now we have the chisel plow, we have areas near us with no-till, strip-till, and really we are managing our farm at sub-inch accuracy with GPS technology.

And when you look at today's prices, when you have sub-$4 corn, sub-$10 beans, I don't think a lot of us are raising our hands saying, "Hey, I want to manage my farm to the dollars. We are managing it to the pennies," and so we are not throwing money away where we don't need to, and we are making sure that we are putting what we need where we need it when we need it. And the tools that you all and your industries provide us have really helped us become much more efficient.

And if you look at with what I just said and the adoption of precision agriculture technology and all the innovations, American farmers have increased their production output by 175 percent, and we have done that while we are using fewer inputs, including land, water, fertilizer, and other chemistries. And so because of the constant work of farmers, who are the best environmentalists in the world, bar none, because we are managing our land to the sub-inch accuracy, we are in it for generations, not for a one-shot "make all the money and go home," but I want to see my kids farm that land so I can't abuse that soil.

And so with that, just a couple of questions in regards to the industry and how we can continue to evolve and continue to, again, acknowledge the fact that we are managing to the pennies right now, not to the dollars. So for any of you that would like to take this question, throughout the last several years, each of your respective industries have made incredible strides in adopting practices that are better for production and the environment, from safe handling to drift-reduction agents. Taking these crop protection tools off the shelves increased costs, and it forces our producers to farm with essentially one hand tied behind our back. And so can you speak to the steps that your industries have taken to implement self-regulation and the motives behind those decisions?

Mr. ABBOTT. I will go ahead and start. So we personally were doing a lot of research and making sure that we know what we know before we actually release the chemistries out there to the public. And we do a lot of research behind the scenes and work with companies and customers to get them exactly what they need. And a lot of the customers that we service, you more than likely buy from. So at the end of the day, we want to make sure you have

the viable tools at the most cost effectiveness that we can provide you to.

Mr. FINSTAD. Anybody else want a shot at that?

Mr. WITHERBEE. Yes. I think in terms of safety, that is one of the more important things we are dealing with, ensuring that our products are safe. No one is going to use them if they aren't safe. The other thing is that we are entrusting some of these products. We are not doing these by ourselves. That is why we utilize land-grant universities where the professors and stuff are part of the community, are part of the neighborhood, and part of that environment. And it is important that they are able to provide testimony to the growers and the farmers in terms of a product's integrity. And I think that is where all of us try to get our products tested and looked at because it is important to build that trust and also to understand the voice of customer is always very important to us. We need to understand, where does it need to be, safety? Where does it need to be cost-wise? How can this be more effective? And we want that feedback in order that we can put that into our product development.

Mr. CAMERON. In California, the growers last year supported an increase in the mill tax[1] or the tax paid on pesticides with the express idea that we will get faster turnaround through our Department of Pesticide Regulation to get new products out quicker and get rid of the backlog. We have been promised that that will happen, and I know it is already—they have new people in place, so we are optimistic, and we support our industry by doing that.

Mr. FINSTAD. I appreciate you being here today. I would just close with saying we need more tools, not less. We need to make sure we are not tying one hand behind our back to farm and really appreciate you being here today.

With that, I yield back.

The CHAIRMAN. The gentleman yields back.

I am now pleased to recognize the gentlelady from Oregon, Ms. Salinas, for 5 minutes.

Ms. SALINAS. Thank you, Chairman Thompson, and thank you to Ranking Member Craig for holding today's hearing, and thank you to our witnesses for your participation today.

I am really proud to represent a district that is home to countless specialty crops, some of the finest wine grapes in the world. The vast majority of this country's hazelnuts and a really impressive variety of berries are all in the Willamette Valley. And when I meet with these producers, I hear about the unique challenges specialty crop producers face and how they sometimes feel left behind by a Federal Government that really focuses a lot of times on large commodity crops. And that is why these producers really make the absolute most out of the specialty crop-specific programs that do exist.

Take the IR–4 Project, for instance. The crop protection industry focuses much of their efforts on major crops that provide the best return on investment, and that makes sense for their business. This leaves specialty crop producers, though, whose crops may not

[1] **Editor's note:** A "mill" is equal to 1/10 of 1¢. Currently, the "mill assessment" is 24.5 mills, or 2.45¢ per dollar of sales (California AB 3112, 2023–2024) (*https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB2113*).

be compatible with traditional pest control methods, with fewer options to protect their livelihoods. IR–4 fills this gap by using Federal funding to develop specialty crop-specific crop protection methods, which may not have been otherwise discovered or pursued.

Mr. Cameron, this question is for you. I appreciated that in your testimony you acknowledged the importance of the IR–4 Project and maintaining an emphasis on specialty crop-specific needs. Could you expand a bit on the importance of IR–4 and explain how increasing funding for it will benefit farmers?

Mr. CAMERON. I would be happy to. Thank you. The IR–4 Project does work for specialty crops. We need more funding. We know that many times we don't have the tools we need for the crops that we grow.

A good friend of mine started growing agave. There is absolutely nothing labeled for agave in the United States. We grew guayule many years ago for seed production. It is a latex plant that people don't get allergic to, absolutely nothing. So we know that if California produces half of the fresh fruits and vegetables in the United States that we need carve-outs. We need support for our specialty crops.

It is a very difficult scenario, as you say, because many of the crop protection chemicals are developed for the large commodity crops throughout the U.S., and we do get left behind. We would love to see specialty crop block grant money coming to California so that can be used to further products that will be used within the state.

So the IR–4 Project we feel is excellent. The FAR program is also very good to get additional testing for crops, and that is through the farm bill. But we definitely get left behind many times in agriculture when we do have a heavy lift and produce abundant crops throughout the state for the nation.

Ms. SALINAS. Thank you. And can you expand a bit on the importance of reestablishing IR–4 and EPA's collaboration on their Biopesticide Demonstration Grant Program?

Mr. CAMERON. Right. The Biopesticide Demonstration Grant Program was an older program. It had been left behind. We feel that that would be critical for getting products out in the field, giving growers confidence to be able to use these types of products and experience.

Currently, growers are reluctant. Our margins are so thin that it is difficult to take the risk on trying new products. If we lose a crop, we could be out of business——

Ms. SALINAS. That is right. Thank you.

All right. And this is for all of our witnesses. I am sure you are likely aware, last Friday, the Trump Administration took the dramatic step of closing EPA's Office of Research and Development. This is the latest instance of a seemingly unending string of actions by this Administration that undermines scientific research and America's role as the global innovator. They fired scientists at the Agricultural Research Service, the National Institutes of Science and Technology. They have cut climate research across multiple agencies, and they have even attacked the National Institutes of Health. It is clear that this Administration does not see the value in investing in science and innovation right now. So I think it is

incumbent on Congress to ensure the United States maintains these investments and our global competitiveness at the same time.

So again, for panelists who would like to answer, I would like to hear from you specific areas of investment that Congress should emphasize in the crop protection space. And where is Congress under-investing?

Mr. ABBOTT. Well, I think we need to invest in newer innovation, new technology, right? We have heard that time and time again today, and I think that is where we are going to grow, and the farmers are going to get the tools that they need. So we could use your support in that, continued support, and it is back to we need the Appropriations Committee to release those funds.

Ms. SALINAS. Thank you. And I am out of time. I yield back. Thank you.

The CHAIRMAN. The gentlelady yields back.

I now recognize the gentleman from Indiana, Mr. Baird, for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman, Ranking Member, and all you witnesses. I know it takes time out of your day, but we appreciate you being here.

So I am going to start with you, Mr. Abbott, but I may have any of you that I may want to ask questions. But in your testimony, you mentioned that the EPA is integrating the ESA consultation into the pesticide registration decisions. That kind of bothers me when I think about some of the species that are listed on the ESA and the complications that causes in terms of moving forward. But you suggest that there may be a better way. So my question is, can you elaborate on that better way of doing that than what they are proposing?

Mr. ABBOTT. Well, I don't think we are going to change their mind. That train has left the station. But what we can do, and it wasn't until we had discussions with the EPA to even get adjuvants as a part of the mitigation. That was several conversations over several days, months, weeks. And we wanted to make sure that we got a seat at the table if you will. I think to quote Chairman Thompson, "If you don't have a seat at the table, you are on the menu," right, more than likely. So we wanted to make sure that we had a seat at the table and that we could actually give the viable tools that will help manage those buffers because we are not going to change the minds of what species are on there. That is a whole different department. And they have done their research. They have different segments. I have seen different maps of it. But what we can do is advocate for reduction of buffers through the use of adjuvants.

Mr. BAIRD. Well, I certainly appreciate your perspective there. It is concerning to me that we don't ever take any of the species off of the endangered species list, and that kind of can impact whatever we are doing in agriculture with FIFRA and all of those issues. So I think we definitely need to keep an eye on what they are doing with the ESA and how putting that in with the EPA is concerning to me.

So does anyone else have a comment about the ESA and the EPA program, the pilot program? No?

Well, if not, Dr. Wyant, I want to have you comment about—Representative Panetta and I introduced the Plant Biostimulant Act, and that is kind of important to hear that you support that idea, as well as really I think it fosters innovation. But my question is what do you think the view is of biostimulants? They are different than insecticides, pesticides, and that sort of thing. So what do you think the view is, and what do you think we can do about the regulatory confusion in that arena?

Dr. WYANT. Thank you, Congressman. Yes, I think with biostimulants we need to recognize that it is a diverse set of substances, humic acid, seaweeds. There is a long list of what can be called a *biostimulant.* And we need to recognize the diversity of the modes of action, how they influence the soil, how they influence the plant. And I think with the Biostimulant Act, defining what a *biostimulant* is at the Federal level would be a great start because it could start to set up the environment where we are working with some known parameters. And I think that is where there is viewpoints in the industry of what is a biostimulant. Some of them are very well researched and have good claims and good performance, and some don't have those properties. So I think that the consumer, the grower, is the one that has been having to shoulder some of that burden of trying things in the field. And if we could tighten up that definition, that would be certainly helpful.

I think recognizing biostimulants as not being pesticides or insecticides or herbicides is also a great start because we need that innovative edge. We need that diverse set of substances that allows us to manage for other things, abiotic stress, it is too hot, it is too cold, maybe the soil is a little bit salty or overly wet, these new management tools we have that are not necessarily maybe moving forward as fast as they should because of that uncertainty. Thank you.

Mr. BAIRD. And these tend to be natural processes, and so they really interact with the living organisms that we have in that soil to stimulate growth or stimulate plants or whatever, so thank you very much. I am sorry I am out of time because I would like to ask the rest of you more questions, but thank you, and I yield back.

The CHAIRMAN. I thank the gentleman.

I now recognize the gentlelady from Hawaii, Congresswoman Tokuda, for 5 minutes.

Ms. TOKUDA. Thank you, Mr. Chair.

I want to build on the question that Representative Salinas started with in terms of the recent announcement of the elimination of the EPA's Office of Research and Development. Do you feel that the work that ORD has been doing since, I believe, 1979 in terms of protecting human and environmental health research, technical assistance to Tribes, states, local governments, data collections, dashboards, do you think all of the work that they did was, in fact, important? Just a simple yes or no from the members of the panel. I need a verbal. Do you think that EPA's ORD was important? Did they provide value?

Mr. CAMERON. Definitely.

Ms. TOKUDA. It is not a hard question. Yes or no?

Mr. ABBOTT. Yes.

Mr. WITHERBEE. Yes.

Dr. WYANT. I will pass on that. I am here for biostimulants.

Ms. TOKUDA. Okay. You will pass on that.

So right now, we are looking at the complete elimination of the office, reduction of staff that they are looking to do. We have already lost thousands of EPA staff since the beginning of this year. They are looking at a 23 percent reduction. You have talked about the need for more technical assistance. You have talked about the need for research. You have talked about the fact that there is a backlog in the regulatory process. Do you believe that eliminating now staff, professional staff, researchers, scientists, individuals who have dedicated their life's work towards this mission is, in fact, a good thing?

Now, from what I understand, the Trump Administration plans to create a new Office of Applied Science and Environmental Solutions. A few of the staff from ORD have been migrated over. Given this basically political reorganization, do you not think it, in fact, points to what Representative McGovern was talking about earlier, that all this is a shell game to try to deregulate, reduce oversight and transparency, eliminate data collection, research, all to speed this process up but, in fact, reduce protections for human health by getting rid of the Office of Research and Development and all of the science and the work that has come with it over the last few decades? Could there not be a case made for that, given what we are seeing is just a political shell game and a reduction right now in elimination of research and protections, data collections, dashboards, technical assistance that have gone to states?

Mr. ABBOTT. I am not versed enough to comment on that, so I will pass.

Ms. TOKUDA. Anyone want to comment on this? Does anyone have any confidence that this new Office of Applied Science and Environmental Protection will, in fact, protect human environmental health while also seeking, as they say, to deregulate the process?

Mr. WITHERBEE. Not enough information to really understand that.

Ms. TOKUDA. So do I have some agreement that the elimination overall of ORD is, in fact, a bad decision by this Administration? Do you feel somehow the elimination of ORD will, in fact, help to deregulate the process and speed up introducing, whether it is pesticides, biostimulants, adjuvants into the system? How do you think it will help your industries and your members, eliminating ORD? Do you think it will?

Mr. WITHERBEE. I don't know one way or the other, but I know what we were working with before wasn't getting through either. So elimination of roles that are tied to the science and providing answers is tough, and so I am looking at no matter what gets put in place, hopefully, it is something that is skilled, looks at the science, can make decisions, and can move them forward so that we can get some of these new solutions to growers.

Ms. TOKUDA. So right now, they are getting rid of the scientists in ORD. They are getting rid of what was literally the EPA's scientific backbone. I don't see how this is a good thing.

And again, to point to the skepticism that was brought forward by Representative McGovern earlier, it does point, in fact, to a po-

litical shell game that seeks to simply deregulate the process, to reduce transparency and oversight in data that ultimately will undermine human and environmental health and transparency.

And with that, Mr. Chairman, I yield back. Thank you.

The CHAIRMAN. The gentlelady yields back.

I now recognize the gentleman from Kansas, Mr. Mann, for 5 minutes.

Mr. MANN. Thank you, Mr. Chairman. Thank you for having this hearing, and thank you all for being here today.

I represent the Big First District of Kansas, approximately 60 rural counties in the mostly western and central part of Kansas.

Farmers, ranchers, and ag producers are the original conservationists. Their livelihoods always depend on the health and sustainability of the land that they work, knowing that stewardship today ensures productivity tomorrow. Technological advances have been helping farmers improve crop yields in Kansas for decades, and they continue to rely on evolving tools and techniques to secure the food supply and reduce losses caused by pests, disease, and extreme weather.

As these challenges continue to evolve, it is essential that our farmers, ranchers, and producers have access to the tools and innovations necessary to ensure a successful crop today and for many seasons to come so they can do what they do best, which we all know is to feed, fuel, and clothe the world. Farming practices such as no-till in Kansas have been used for many, many years as our farmers work to sustain good soil health, but they have to have the tools to be able to do that.

So just a handful of questions, first for you, Mr. Abbott. In your testimony, you mentioned that the U.S. has the most scientifically rigorous and transparent pesticide regulatory system in the world. Could you further explain what specific features or processes that make the U.S. system stand out compared to other countries?

Mr. ABBOTT. Well, first, the rigorous testing that goes through and the submission and the review process. You go to different countries—and I can't speak for every country. I know PRIA, it seems like it takes—excuse me, not PRIA, but PMRA (Pest Management Regulatory Agency) up in Canada, it will take years and several millions and millions of dollars to get things registered there.

You have heard our frustration on the backlog, right? That is real, but it is not the first time we have seen backlog. It has just never been to this degree. So I would say we really have one of the gold standards if you will. It is just a matter of adequately funding the staffing there to get things through.

Mr. MANN. Yes, that makes sense. In an area of growing concern amongst producers all over Kansas is growing resistance to current crop protection tools, which can reduce their efficacy and create vulnerabilities to damage.

Again, for you, Mr. Abbott, can you speak to the role that adjuvants and inert ingredients play in reducing the risk of weed resistance to provide growers with long-term success in managing?

Mr. ABBOTT. And I will speak for the inerts first, right? The inerts are part of the pesticide package, right? That is what helps them work together, commingle together. If you are putting dif-

ferent chemistries together, they don't always like to play nice together. It is how do you get those to where they are actually going to stay in stable form and where you can actually use them on the crop.

The adjuvants are going to help influence the tank mix to a degree that you are going to see an improvement between 15 percent and even as high as 30 percent increase in efficacy *versus* the pesticide by itself, so it is about getting it into the leaf penetration, spreading across the leaf, and actually keeping the spray on the crop itself that you are spraying.

Mr. MANN. All of which we need to quickly approve as new technology is coming out to give our producers the tools they need to sustainably farm.

Mr. ABBOTT. Absolutely.

Mr. MANN. And we also have to remember that at the core of sustainability is profitability. And for our ag producers, if it is not profitable, it will not be sustainable.

Last question for you, Mr. Witherbee. Agragene's technology represents an exciting development in pest control that can grow a producer's toolbox of options. As we look toward resilient farming systems, can you discuss how your technology can be integrated with other proven crop protection tools to enhance integrated pest management strategies?

Mr. WITHERBEE. Yes, I think we all know by now that there is no real silver bullet, so the more tools that you can have so that you can do rotations, so that you can apply different chemistries or different products, *et cetera,* gives the growers different opportunities to do this. And particularly with changes in climate, changes in the way pests are active, they need these other tools and other options, mechanisms of actions, in order to really fight and protect their crop and protect their current season.

So just having more tools in the toolbox and then having, as we have all learned, the growers are the smartest people out there. They know how to take care of their crops and to bring it to market. They will find ways at the right times to apply them and to get them in order to maximize yield and to hopefully maximize their profits as well.

Mr. MANN. That is right. Well, thank you all again for being here.

And with that, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentleman from North Carolina, Mr. Davis, for 5 minutes.

Mr. DAVIS of North Carolina. Thank you so much, Mr. Chairman, and our Ranking Member. Thanks to all the witnesses who are here today.

The Interregional Research Project No. 4, known as the IR–4 Project, ensures specialty crop farmers have legal access to safe and effective crop protection products. The IR–4 Project is housed at North Carolina State University, just outside of North Carolina's 1st District. In eastern North Carolina, the IR–4 Project is essential for our sweet potato farmers in particular.

And my question is for any of the witnesses that could address this. Could you speak on the importance of the IR–4 Project for

specialty crop farmers and how it actually interacts with pesticides specifically?

Mr. CAMERON. Yes, we believe the IR–4 Project has been a very effective program within California for specialty crops in getting essentially minor registration or registration of traditional chemistry into the specialty crop side of California agriculture. Without that, you leave crops totally uncovered, unprotected when you have viable products that are available and could be used on that crop. So it has been a good entry point to move other products into the specialty crops that are similar in growth habits or in consumption. So we support it. We support more money for that program and really would love to see expansion.

Mr. DAVIS of North Carolina. Thank you. When I speak to farmers back home, they talk about the importance of access to different crop inputs as protection tools. Without them, their crops face various threats and potential financial losses. The loss of access to those inputs poses an immediate threat to our ability to feed the American people and the world.

Dr. Wyant, can you speak about what some of these crop inputs are and what they provide to farmers?

Dr. WYANT. Sure. Thank you, Congressman. So from the nutrition side, we have fertilizers, and they are long-proven tools to help improve crop growth and crop yield. We have nitrogen, phosphate, potassium, and sulfur, your main four that growers use all over the world to help improve their crop at the end of the season, so we have that major class of inputs. We also have the crop protection inputs that my colleagues on the panel could answer questions about. So those are your two major inputs. We also are fortunate to have a good input of sunshine. That is one of your key ingredients. And, of course, water either from irrigation or in the soil from rainfall.

So the new innovative piece for crop inputs is certainly these biostimulants, so living and non-living products that really can help us manage other things. So we have figured out the pest control. We have figured out nutrition. Now we can start to manage new things like the abiotic stress, nighttime temperatures, compacted soils, things like that, and I think that is where the exciting new spaces for growers is being able to turn to those tools and manage things that in the past have been very, very challenging. Thank you.

Mr. DAVIS of North Carolina. Mr. Witherbee, how important is technological innovation in the agriculture industry, and what specifically do new technologies provide farmers? If you could just speak on that.

Mr. WITHERBEE. Yes. I think, as things have changed in terms of environment, the different pest pressures, invasive species, other things, that technology allows us to attack some of these in different ways. In particular, as much as we have talked about it, it costs a lot of money in order to bring a new active ingredient through. Particularly with a lot of the crops we are talking about too, these are ones that a broad acre application just isn't going to work for necessarily. It does for corn and soy and other things like that, but now when we get into specialty crops, there are certain things that—weeds are special. Pests are special. They all require

different things, and it is not just going to be broad-based that does it. So new innovations are going to be important to bring in order to fight some of these newer pests and some of these newer problems that are being created.

Mr. DAVIS of North Carolina. Thank you again to the panel, our witnesses, and I yield back.

The CHAIRMAN. I thank the gentleman, yielding back.

I recognize the gentlelady from Illinois, Congresswoman Miller, for 5 minutes.

Mrs. MILLER. Thank you, Mr. Chairman, and thank you to our panel for being here today to discuss these important topics.

And like Representative Finstad, I also am a fourth-generation farmer with my husband in central Illinois. We raise corn, cattle, and kids. We also have seven children. And we are conservation farmers. And I understand the challenges that the family farm faces between being able to pay the bills and afford this great new technology that is on the scene.

So, as you know, Illinois is one of the top producers of corn and soybeans in the country, so this is a topic that hits home closely. Illinois farmers have long been leaders in adopting cutting-edge technologies from precision agriculture to advanced seed genetics. This is all to increase productivity and to help feed our nation. But as we look ahead, our producers are also facing real challenges, including regulatory delays, input costs, and concerns over access to innovation. As we consider the next farm bill and other legislative efforts, we need to ensure that Illinois farmers and others across the country have the tools and the freedom to innovate, compete, and succeed.

And it is kind of interesting because this month we are going to be having the Farm Progress Show in Decatur, Illinois. And it is always a big deal for our family, and families show up. Family farmers show up and kind of drool over the equipment that they can't afford.

So as many farmers in my district continue to face tight margins, what steps can we take to ensure that innovations in crop production are cost-effective and scalable, especially for family farms?

Mr. CAMERON. I will take a stab at that. We have looked at a lot of innovations on-farm from laser weeders to really highly precise weeders that will actually spray a minute amount of herbicide on a weed and leave the rest of the crop alone, but they come with a hefty price. We are talking $750,000 to $1.5 million, and for the average grower, that is way out of reach. Maybe in the long run it can save money, but technology is expensive.

I would love to see maybe a program through NRCS where there could be some help in funding new technology on-farm. Get the money directly to the growers. They know what to do with it. They know what they need. I think that is a good way to advance technology on-farm and to improve the ag economy.

Mrs. MILLER. Thank you.

And Mr. Abbott, Illinois is home to world-class ag research institutions. How can we better leverage land-grant universities and public-private partnerships to accelerate the real-world adoption of future crop innovations?

Mr. ABBOTT. Well, I can speak right now from companies I formerly have worked for and the company I work for today. We actually do leverage that relationship. We work with contract research organizations. We also work with the different academics throughout not only Illinois, but we work with Texas A&M. You go down the list, there are several of them out there that offer good programs. And we partner with them so we can get good data back. And, I mean, sometimes good data, it doesn't work, so then you know exactly where you stand and you move on.

Mrs. MILLER. Well, thank you.

I yield back, Mr. Chairman. Thank you all for coming.

The CHAIRMAN. The gentlelady yields back.

Staying with that Illinois theme, I recognize Mr. Sorensen for 5 minutes.

Mr. SORENSEN. Thank you, Mr. Chairman, and to our Ranking Member.

Agriculture in America today is being stressed from all different directions. New invasive pests are spreading from pen to pen and field to field. New weather patterns are developing, causing more frequent derechos, flash flooding. And as of today, the University of Nebraska reports nearly half of our country is experiencing drought conditions. Point being, we need smarter, safer solutions.

Illinois farmers, as the Congresswoman had mentioned, we are some of the best in the world when it comes to increasing production and being resilient in the face of adversity. Our job on this Committee is to make sure that operations can be passed on to the next generation. We must give our farmers the tools that they need to succeed.

I believe innovation is how we make the biggest move forward. We can use biologicals to lower inputs needed to deter pests, and microbes can help us grow crops. In my district, the beacon of innovation is the Department of Agriculture's National Center for Agriculture Utilization Research. But those of us in the heart of Illinois, we know it as the Peoria Ag Lab. Famous for discovering the method to mass produce penicillin, the ag lab continues to be at the forefront in developing value-added agricultural products and has been for nearly 80 years.

A key area of the lab's work focuses on enhancing crop resilience. Scientists there have developed a natural pest control from a byproduct of mustard seed and also found red cedar plant compounds that help predatory ladybird beetles. Innovation allows us to control crop pests naturally.

And there is even more research that goes way above my hat. From precision agriculture to increasing soil quality, providing resilience, the problem here is this. The path from laboratory to farm field, it remains too long and too uncertain. And it is not just creating innovation, it is scaling up, it is meeting standards, it is earning producer trust, and it is building supply chains. That requires investment, and it requires bipartisan agreement that we still want to make sure that farmers have access to the tools that they need to succeed.

Mr. Cameron, we will begin with you. I have heard stories where something so simple as failing to specify how to properly apply biologicals to crops actually lowered the effectiveness. Ultimately,

it wasted the farmer's time and money. In your testimony, you made a couple of suggestions, such as creating incentives and providing technical guidance. Could you elaborate on this? And are there specific products that you have seen adopted that farmers were initially wary of but then they came around to it? And how do we help identify new uses for biologicals?

Mr. CAMERON. I understand that biologicals are new for many growers. Their margins, as you know, are thin. They are reluctant to take the chance on a new product, especially when we talk about biologicals that may require special application, special handling, maybe a combination of several biologicals to make the products function synergistically to be effective.

We know that there are actually not many people out there that really have the knowledge for that, the training to be able to articulate that to the growers at the level that they will want to try and understand. We have been working with trying new products on our farm. We are constantly doing our own trials.

Mr. SORENSEN. It is trial and error, right?

Mr. CAMERON. Yes. We sometimes think we are a research station, but we know that if we don't do it, we are going to be left behind and——

Mr. SORENSEN. Thank you. Thank you for that.

Mr. CAMERON. Yes.

Mr. SORENSEN. I appreciate that. I want to get to Mr. Witherbee. As a scientist myself, I am always concerned with the increasing anti-science rhetoric around the country, and it gets politicized, and it is terrible, honestly. We have seen it in campaigns around GMOs and corn syrup, and now consumers are becoming skittish when they hear gene editing. I have 30 seconds left. How can companies like Agragene and the government more effectively communicate the safety of new technologies?

Mr. WITHERBEE. Well, part of it is financing the science and being supportive of the science, particularly if it is the U.S. science, right? And it is in our nation's interest. So part of it is going back to more of a fact-based approach of this is the facts we have tested. We have put it out in our land-grant universities. We have had some of our best scientists test this, and here are the proven facts about this, not the hearsay. And I think it is important to get back to the facts and to then make sure that that is being represented to the growers that then get the opportunity to try some of these tools.

As I said, some of them will work, some won't, but part of it is trying to find that out. And doing that early through trusted people like what we have in terms of our scientists and folks at land-grant universities is very important.

Mr. SORENSEN. Couldn't agree more. Thank you so much to our panel.

And, Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman.

I now recognize the gentleman from Wisconsin, Mr. Wied, for 5 minutes.

Mr. WIED. Mr. Cameron, you grow both organic and conventional crops. Could you further explain what your experience has been with crop protection tools with both of the production styles?

Mr. CAMERON. We find a very limited selection of crop protection tools for organic that actually do the job. We talked earlier about working with one hand tied behind your back. That is how it feels many times. We have been able to get good at it. We have been able to hit windows that we don't have the pest pressure possibly. Weeds are always an issue. We spend a lot of money there, but we are very limited. There really haven't been a lot of new products coming into the organic market that are very effective. We are hopeful that there will be with additional biologicals hitting the scene in the future.

Conventional products, we are just not getting a lot of new products to use, and that means we are using older products, older chemistry. We have to worry about resistance developing. We are extremely careful about rotation of our chemistry when we do make applications, and we are just trying to find ways to do things better and lower our cost.

Mr. WIED. Thank you. So in recent months and years, there has been a much larger and louder conversation to get Americans to be healthier and make healthier decisions regarding their food. How do you think these crop protection tools play a role in increasing American-sourced healthy foods?

Mr. CAMERON. I believe that, when I started farming, we used very tough materials that would kill everything in the field. We are now using targeted materials that kill only the insect that is being the problem, leaving the rest of the field, the beneficial insects, to help continue attacking the ones that do come back.

I think the food we produce is extremely healthy. We have become very good. Our production has gone up. The genetics have improved immensely in the crops that we do grow, but farming is a difficult operation.

Mr. WIED. So on that, what driving factors do you use to determine which protection tools you use for your conventional crops *versus* your organic crops?

Mr. CAMERON. I will start with the organic because that is very limited. But we do spray our organic crops. We definitely do put crop protection materials on that, but we are very selective. We use coppers, sulfurs. There are natural pyrethroid available that doesn't have the same strength. We rarely use it. It doesn't work great, but in dire situations, we will try it.

We try to have a lot of diversity on our farm. We find that beneficial insects will switch from field to field and actually keep some of the populations down not only in organic but in conventional. We have learned a lot of things in organic production we use in conventional and *vice versa.* But we are running low on products that we can use in organic and conventional farming. We just see the backlog. It affects us directly.

Mr. WIED. So last, I understand the crop protection options for specialty crops are fairly limited compared to those more traditional row crops we talk about more frequently. How has that impacted your business?

Mr. CAMERON. We tend to tolerate more possible insect damage if we don't have the product or a product that is registered on the crop that we are growing. We may lose yield, definitely. We typically see a lower yield in organic crops *versus* conventional. We

grow both side by side. Well, not side by side, but on the same farm. Typically, we definitely have a yield loss when we don't have the crop protection chemicals.

Mr. WIED. Great. Well, thank you all for being here today.

With that, I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentlelady from Illinois, Ms. Budzinski, for 5 minutes.

Ms. BUDZINSKI. [inaudible] Can you hear me now? Yes. Okay. I was thanking our Chairman for hosting this and also just wanted to say thank you to the witnesses for traveling to be a part of this discussion.

The conversation around innovations in crop production is something that is very timely. We have all heard from farmers in our districts, mine certainly, about the challenges of rising input costs and the difficult decisions that they must make to improve productivity but reduce costs at the farm. My district is home to over 1 million acres of farmland, and while much of it is corn and soybeans, we are also the home to a variety of specialty crops. I often like to remind people I represent Collinsville, which is the world capital of horseradish production.

But in central and southern Illinois, the ag industry is not just farms. We are also home to incredible agricultural research at the University of Illinois but also Southern Illinois University in Edwardsville. We are the home of corporate facilities like ADM's North American headquarters in Decatur, along with other ag manufacturers like Premiant and facilities for some of the biggest names in ag across the district, including Nutrien in Champaign, Illinois.

My district is, in many ways, leading in that next horizon of agriculture, be it in producing inputs, creating new markets through biomanufacturing. I also like to say I represent Silicorn Valley, a corny joke for everyone, or even the integration of AI into farming operations. The University of Illinois is the home of AIFARMS (Artificial Intelligence for Future Agricultural Resilience, Management, and Sustainability).

I enjoy each of your testimonies about the role that you are playing in ag innovation and the importance of a regulatory system that works for producers and growers. But I also want to underscore the importance of how these innovations can come to be in the first place. I have been a serious advocate for agricultural research since I joined Congress. And as a part of that, I frequently talk about the importance of public-private partnerships and the role that these partnerships can play in ushering in the agriculture of the future.

So I would ask, actually, each of the panelists, our witnesses, can each of you speak to the importance of Congress funding public agricultural and environmental research, especially as we work toward new horizons in ag and pest control innovations? And maybe we could start with you, Mr. Witherbee.

Mr. WITHERBEE. Yes, no. And part of it is, for sure, as I had mentioned before, part of Agragene came out of BioSTL or BioGenerator, which is basically building on technologies and supporting early development. Part of that is important. And then we

use strong linkages with the University of Missouri, Danforth Center, other institutions in order to do the testing to get some of the products and to get some of the talent as well. And so I think it is important those relationships continue. A lot of that is via funding that comes into those organizations to help with supporting kind of the next generation of innovators, entrepreneurs, or just developers, and so I think it is very important.

Ms. BUDZINSKI. Great.

Dr. WYANT. Thank you for your joke. I might steal it from you. And thank you for mentioning Nutrien's Innovation Farm in Champaign, a fantastic facility for showing growers and customers what is next.

I think for your question about what Congress can be doing is just taking those steps to make sure that those tools are in the toolbox, that whatever challenge we have coming down the pipeline is growers have something they can reach into readily and take care of it.

Ms. BUDZINSKI. Thank you.

Mr. ABBOTT. And I will talk about investing in the land-grant universities and just the students themselves, right? We are seeing a lot of decrease of ag students coming out of the universities. And if you look here, a lot of gray hair up here. We need people to replace us as we move on, right? So I would really like to see Congress help push that initiative and get the funding that we need to succeed.

Ms. BUDZINSKI. That is a great point, yes.

Mr. CAMERON. Yes, I have a lot of gray hair. Hopefully, I will keep it for a little while longer.

But, no, we definitely need money for research in ag. I think without research, we don't have a future. There is absolutely no question about that. The new technology is coming at a rapid pace. And, growers have a lot of issues on their plate, and this is a very important one. It is one of our basic needs that we have to have. Research is the backbone of agriculture, and if we don't have that, we are not going to have a future. And we do need young people to get into ag, no question.

Ms. BUDZINSKI. Great. Thank you. Well, you have a partner in me in that work and advocating for that funding. It is really critically important.

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

The CHAIRMAN. I thank the gentlelady.

I now recognize the gentleman from Indiana, Mr. Messmer, for 5 minutes.

Mr. MESSMER. Thank you, Mr. Chairman, and for all the witnesses today.

Hoosier farmers are increasingly productive. Between 2020 and 2023, net farm income grew by more than 60 percent, even though active farm acres declined. While much of this productivity is due to expertise of growing, some of it is of the efficiency. Some can be attributed to new farm tech. My district is at the forefront of the next generation of crop protection chemistries, but before ag innovators can bring a product to market, they must grapple with the threat of IP theft.

Mr. Abbott, can you speak to how IP theft impacts the decisions you make at Adjuvants Unlimited?

Mr. ABBOTT. We take that very seriously, right? We want to say—and the proprietary nature of our business here is—because a lot of the adjuvants are not patent-protected as crop protection is, so we need to make sure that we keep that confidential and secure.

Mr. MESSMER. Okay. Thank you. The USDA identified cybersecurity as a primary threat to our national farm security. Mr. Abbott, how can Congress partner with businesses like Adjuvants Unlimited to bolster IP protections through cybersecurity enhancements?

Mr. ABBOTT. I would say, wherever you can fund it, I would support that.

Mr. MESSMER. Okay. Thank you.

Mr. Cameron, I appreciate your comments about the pragmatism of the American farmer. The producers who have survived the last several years of razor-thin margins are among the most efficient, innovative, and hardest-working individuals out there. They are not wasting expensive chemicals on irresponsible application.

Mr. Cameron, for the purpose of shedding light on a part of farming that is often misunderstood, can you quantify how much pesticide is applied on an acre of your conventional crops?

Mr. CAMERON. Can I quantify the amount of pesticide used?

Mr. MESSMER. Yes.

Mr. CAMERON. We grow a very diverse number of crops on our operation, and I think years ago we used to spray on a much more frequent basis, maybe a calendar basis. We use integrated pest management on all of our crops. We scout. We have companies that actually come do pest control work on our farm, check our field, but we also check behind them. I always say the best footprints are your own to be on your farm. We need to be out in the field looking at our own fields.

But as far as quantifying, we grow over 2,000 acres of processing tomatoes. We may put one product on sulfur, very common for disease and insect protection. And then we may later in the season put one spray on for worms to keep them from getting into the tomatoes.

But, I look back on how we used to farm. We used to spend more money. Our products cost more, but they are more specific and they are more effective.

Mr. MESSMER. Thank you. The National Corn Growers Association compares the amount of glyphosate applied to an acre of farmland to that of a large cup of coffee being spread evenly around a football field. But in the real world the absence of this coffee cup's worth of protecting would lead to large crop losses and eradicate the use of soil health practices like no-till, so they are very important.

FIFRA keeps our producers, consumers, and environment safe, but the process is incredibly slow and needs improvement. Mr. Abbott, you mentioned that $½ billion in CPDA products are currently tied up in EPA reviews. How challenging is it for a small biotech innovator to wait out these EPA delays?

Mr. ABBOTT. Very costly. I don't know the exact dollar amount, but I do know the longer they wait every day is lost revenue, and

not only for the small startup companies, but also for the farmers as well because it is back to needing additional tools out there to be successful.

Mr. MESSMER. Thank you. In holding up pesticide reviews, the Biden Administration forced small businesses to shoulder a heavy expense. I am encouraged by the steps the current Administration is taking to right these wrongs, and I look forward to working with them to ensure affordable access to critical inputs for Hoosier farmers.

With that, I thank you all for sharing today. And, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman yields back.

I am now pleased to recognize the gentleman from New York, Mr. Riley, for 5 minutes.

Mr. RILEY. Thank you, Mr. Chairman. Thank you to all the witnesses for being here today.

I represent a rural district in upstate New York. I actually grew up just a few blocks away from The Cider Mill, and one says The Cider Mill, not a cider mill. Folks in Broome County understand that. Every kid has a field trip at some point where you go to The Cider Mill. My wife, she is a Virginian, and the first time I brought her home to meet my parents, our first hometown date, I took her to The Cider Mill so she could see how the apples are crushed and we got some donuts, which may or may not be why she ended up marrying me in the long run.

But I raise all that because apples upstate, it is a big driver of our economy, but it is also a really important part of our culture. It is a really important part of our community. But I don't think, or at least I wonder sometimes whether Congress is doing enough to support our apple growers. Unlike row crops, specialty crops typically don't have the same level of access to crop insurance and to other safety net programs. And I have heard from a lot of our apple growers across upstate New York that that leaves these producers especially vulnerable when you have invasive pests or emerging diseases or shifting climate conditions end up hitting their fields. And sometimes when it comes to research dollars, our specialty crop growers are sort of an afterthought, despite the fact that they probably need the help the most, given that a lot of the challenges they face are crop-specific or region-specific and therefore require targeted, science-based solutions.

And so, Mr. Cameron, I was just hoping you could speak generally and share your perspective as a specialty crop producer. What are the handful of Federal programs that could be improved when it comes to pest management and research and mitigation tools for specialty crops? How should we be thinking about crop insurance and just generally as somebody who cares a lot about the apple industry and specialty crops generally, things that we should be focused on here in the Agriculture Committee?

Mr. CAMERON. Well, we know that the IR–4 Project has been a great boon to specialty crop growers, getting new chemistry into the hands of specialty crop growers, so that is number one. The FAR program that actually does testing and brings other products on farm for testing, very important. Specialty Crop Block Grants

have been critical for getting projects within states and getting new products, new technology on board in specialty crop areas.

As far as insurance, you are right. Many times specialty crops are left behind. They are difficult to get insured. You go through maybe the—I can't think of the term, but for NRCS, their program for non-insured crops. It is a difficult process. It is not easy. I usually don't even bother with it because it is too cumbersome. Maybe simplification, maybe we can group them together in some way and have some type of a matrix that could address some of the issues that you face and that we face in California.

Mr. RILEY. Yes, I appreciate that and would like to work with you on some ideas for both streamlining existing programs but also making sure they are covering more folks and covering the challenges that are particular to specialty crops across the country.

Thank you all for being here for your testimony. Mr. Chairman, I will yield back my time.

The CHAIRMAN. The gentleman yields back.

I am pleased to recognize the gentleman from North Carolina, Mr. Harris, for 5 minutes.

Mr. HARRIS. Well, thank you, Mr. Chairman, and thank you all on this panel for your time and your patience and the way you have brought your expertise on a very important subject to us today.

Mr. Abbott, let me just start with you. The Office of Pesticide Programs was created to oversee the safe administration of pesticides in order to help farmers, but your testimony shows that it is failing to keep up with the demand. As a result, farmers are missing out on more affordable and effective products. And so in December, Mr. Abbott, Congress passed a law that asked for an independent audit of EPA processes and performance to make recommendations. And I just wanted to ask if you might have some insights or what you might expect that that audit is going to find.

Mr. ABBOTT. It is a great question, Congressman. I am not sure what it will find, but I do know what we have done. As registrants, we paid an additional 30 percent. That was what was agreed to, and we are not seeing that money for the backlogs that we continue to talk about here today. So I would assume that it will maybe see some inefficiencies and where they could possibly bolster different staffing, whether it is a reduction in staff, people retire, people leave. I mean, we just need to fix what is wrong.

Mr. HARRIS. Got you. Well, let me ask you this. Are the delays at OPP simply a matter of a lack of Congressional funding, or are there further regulatory changes that Congress really needs to consider?

Mr. ABBOTT. I think you always got to consider the future, look at the past, where we have been and where we are going with new innovations, new technologies, and whether or not the current system fits the bill going forward. I can't speak to that, *per se,* but I do know we just need to do—and I think doing an audit of it is going to probably get to the bottom of some of that.

Mr. HARRIS. Okay. Thank you.

Dr. Wyant, we often hear from producers the need for more *tools in the toolbox,* we have used that phrase several times here this morning, as they face increasing pressures and the need to produce

more with less. I wonder if you could take a moment and explain further how biostimulants being used in conjunction with traditional crop inputs like fertilizer and pesticides can actually help producers form a well-rounded plan to protect their crops.

Dr. WYANT. Thank you, Congressman, great question. So those fertilizers serve as that foundational component. We need to provide the plants nutrition that they need to grow and produce a great crop. That is something we have been doing for a long time, and it is something that Nutrien prides itself on bringing those materials to the market.

One thing we can do with biostimulants is add a new functional component where we can take a material—and biostimulants are a big tent with lots of ingredients and lots of modes of action of how they impact the soil or the plant, and we can add a new component to the fertilizer in a blend. We can put them together and make something completely new, completely innovative. And some of these products can be very tailored to what those local conditions are, field conditions, weather conditions, even crop-specific conditions. Thank you.

Mr. HARRIS. Okay. Great.

Mr. Cameron, given your experience producing both conventional and organic crops, I imagine you know the ins and outs of almost any type of crop production tool out there. I think we would benefit from hearing your perspective on the value of the pesticides and ensuring an abundant U.S. food supply since you have farmed with them and without them. Could you share with us today how access to these EPA-approved pesticides is crucial for the farmer's success?

Mr. CAMERON. Absolutely. We know and we see with farming with very limited inputs in organic production that we run into disease issues, we run into pest issues that we really have a difficult time controlling. We have lost crops due to insects and disease, which is why organic products or produce tends to be higher in price. There is more risk involved. And when we have conventional chemistry that we can use for crop protection, we have a better, back to the toolbox, we have better tools to be able to put specifically on for certain types of pests to control them and get our crop to where we end up with higher yields and many times better quality.

Mr. HARRIS. Thank you. Thank you all again for being here today and for your expertise that you have shared.

And, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman yields back.

I am now pleased to recognize the gentlelady from Maryland, Mrs. McClain Delaney, for 5 minutes.

Mrs. MCCLAIN DELANEY. So thank you to our witnesses here today. I know it has been a long morning, and I really appreciate all of your expertise.

And I do have to say thank you to our Chairman GT Thompson and to our Ranking Member, Ms. Craig, because they really have focused on innovation and U.S. competitiveness in the agricultural sector, and I really appreciate that work.

Your perspectives today speak directly to the importance of improving practical, science-driven innovation in agriculture. And

many of you have raised challenges to those resources. And I have to say, I am a fourth-generation Idahoan, came from a farming family, but I represent Maryland's 6th Congressional District and western Maryland in our ag preserve. And I believe in our strong regulatory system, although it clearly needs improvement, but we can't meet today's needs without proper resources. So my questions are just going to focus on really understaffing and resourcing, probably at the EPA, and also you know, further research at our land-grant universities.

The EPA's Office of Pesticides Program is chronically under-funded and understaffed, as we have talked today, and leading to backlogs that delay access to safer, more effective tools. And, second, I want to highlight the vital role of our land-grant universities and regional research and what that means.

So with respect to these staffing shortages, Mr. Cameron, you highlighted that there is simply not enough staff and resources to sometimes keep up with the applications in some of your testimony, and I share your concern, especially given the impact on the EPA's ability to improve innovation products. With growing resistance to existing pesticides and a shifting consumer demand, is there a way farmers in the private-sector could help better address some of these staffing shortages and this education back loop? I saw some of your testimony and thought it was really interesting. And, do you have any specific recommendations for us in Congress? And I might add that also open that up to the whole panel as well.

Mr. CAMERON. No, we know that we have a lack of products that we can use in traditional farming and in the organic world since I live in both realms.

Mrs. MCCLAIN DELANEY. Yes.

Mr. CAMERON. We know that the products, we are being asked to reduce pesticide use, produce healthy food for consumers throughout the nation, but the tools take time. You have heard 10, 12 years to go from inception to being able to be registered in the field, so anything we are getting now was designed or created years ago. So we are not seeing the technology move forward at a rapid pace.

Possibly, I can see some type of accelerated program for biologicals that may not have the traditional risk associated with it, maybe a special category, but definitely working with state governments that do have—like we do in California, we have a Department of Pesticide Regulation, work in tandem, possibly get an MOU put together to where we can move products forward together rather than getting a product registered at the Federal level and then going through a California process. It just delays. It is delay after delay. We need things now. The consumers are demanding it, and we want to be good stewards. We feel we are. We just need to get products through the process.

Mrs. MCCLAIN DELANEY. Thank you. I am going to just move on quickly for time for university investment. Mr. Abbott, you mentioned that the CBDA supports increased Federal investments in applied research and demonstration projects through land-grant universities and regional Centers of Excellence, and Maryland has a great footprint of strong land-grant universities. I am curious, how can we better leverage to support testing new spray tech-

nologies, validating application strategies, and supporting farmer adoption through education and outreach?

And then I loved the comment about investment in students themselves as well because I think that is important.

Mr. ABBOTT. Sure. No, and I will just talk briefly here because I know our time is short here, but they have not stopped the research, right? I know several researchers, they continue, and I have also helped support because they solicit grants and working for a large multinational at DuPont, I helped get some of those fundings for them because I saw the importance. And it wasn't around just selling a product. It was actually getting the tools into the farmer's hands.

Mrs. MCCLAIN DELANEY. Anyone else in terms of input on that? All of you seem to really support research as well, but any other specific recommendations for us? All right. And for the record, I will submit one more question about regulatory delays, but my time is up. I yield back, and thank you all, very informative today, and I appreciate your testimony.

The CHAIRMAN. I thank the gentlelady.

Now I recognize the pride of South Dakota, Mr. Dusty Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman.

Mr. Cameron, I come to you. I think we all realize producers deserve a consistent science-based approach toward crop protection tools, a national labeling standard that embraces that consistency and that science-based approach. It seems like we increasingly have a state or two that wants to be in the business of conflicting labeling standards. Tell me about the frustration or the complication that causes producers.

Mr. CAMERON. I said earlier that when you have a product that is fully registered in one state but not in another, I think it puts that state at a disadvantage. They can't compete equally, and it creates issues. We may have an insect infestation that needs a product that isn't fully registered within that state. It creates issues, creates the use of using more material, maybe more toxic materials to try and find a solution to the problem a grower may have. So, I am always in support of uniform labeling and uniform distribution of the product and the legality, the legal side of application.

Mr. JOHNSON. And I think the Committee here, most Members well understand the rigorous science-based approach that EPA engages in to get these labeling requirements. I think it is broadly accepted across the industry. States that are attempting to do their own labels have their own processes. Do any of them match or exceed the rigor of what we see at the Federal level?

Mr. CAMERON. Occasionally, that is the case, yep. They may make the product more restrictive, put buffer zones.

Mr. JOHNSON. I know that they may be more restrictive, but is their scientific analysis, are they doing more science, or are they allowing political science to creep into their findings?

Mr. CAMERON. I think it is probably a mix of both.

Mr. JOHNSON. Yes, sure. Okay. How about for you, Mr. Abbott? You talked about, and I thought appropriately so, that ESA compliance has been trending away from practical solutions and toward

more land restrictions. It seems like in some cases that can be the wrong approach. Can technology help solve these problems?

Mr. ABBOTT. I believe so. And I will say I lived in your beautiful state for 5 years. I was a DuPont rep up there, so lived in Pierre, actually Fort Pierre, West River.

I would say yes, the adjuvants play a huge part into that on the ESA. There are several different things that can be and were recognized from nozzles, different things, but in order to fine tune it and help reduce that buffer even more because, let's face it, if you do a buffer zone, that is lost production, and that is money out of the farmer's pocket. So I am not saying that we don't need to pay attention to the endangered species, but I think we have the tools and the technology to mitigate that.

Mr. JOHNSON. So you mentioned nozzles. I mean, help us understand, explain for folks a little bit how some of these drift reduction tools, these practical tools can help. I mean, how do they work?

Mr. ABBOTT. Sure. So when you add that to the tank mix, it is going to help increase the volume, the VMD is what it is called, and it is the droplet size because what spreads and what drifts is fines, right? When you come out of the nozzle body, out of the orifice, it is going to drift across the field. We are influencing that to minimize that. You are never going to totally eliminate it, but you can definitely severely reduce that.

Mr. JOHNSON. I don't have any particular answer in mind, but is there something Congress can do to encourage more of these technological, practical solutions rather than just *carte blanche,* the land restrictions?

Mr. ABBOTT. I would say work within the committees that are in Congress in support and the funding because I think some of this, they don't quite understand we need to get adequate resources there to bring in the experts if you will.

Mr. JOHNSON. Thank you very much, gentlemen.

Mr. Chairman, I would yield back.

The CHAIRMAN. I appreciate the gentleman. I appreciate the fact that we just actually passed legislation that increased investment in agriculture research. It is something that unifies both sides of the aisle here recognizing that.

I am now pleased to recognize a patient and very effective legislator, Mr. Taylor from Ohio, for 5 minutes.

Mr. TAYLOR. Thank you, Mr. Chairman. Thank you, Ranking Member.

I think if I just yield back before anybody walks in, you guys get to go home, but let's gamble a little bit here.

Dr. Wyant, you have a lot of experience dealing with all the different state regulations and regulators, and you talked in your testimony about the trouble of a patchwork approach concerning definitions as well. Can you talk about how having 50 different regulations and 50 different definitions of something would complicate your business?

Dr. WYANT. Thank you, Congressman, appreciate that question. Yes, so having this patchwork of regulation means some farmers in some states have tools available to them where just going over a border they don't have that tool, and that is quite frustrating to the growers. We experience that. I am from Arizona. We have access

to tools that Californians don't, even though it is just a river that separates us. Climate is very similar. The stressors are very similar. Maybe the same for Midwestern growers now where there is this heat dome going across the country, an incredible stressful event for a crop that is developing at a sensitive time for yield. The heat dome doesn't care where state borders end and where they begin. It is a climate event. It is a weather event.

So I think cleaning up some of that patchwork and providing a Federal definition of what a *biostimulant* is and what it isn't and then excluding it from FIFRA to really just expand access to the toolbox and even it out throughout these different states. Thank you.

Mr. TAYLOR. Thank you. Is that something you see a level of concern from the average farmer about, or are they not as concerned as they should be? If you understand what I am trying to ask.

Dr. WYANT. I hear the frustration. I came up in agriculture, California, Arizona. My first territory was Phoenix to San Diego. We farm out there. If you are eating a salad in the wintertime, it is coming from us. And lots of frustration from growers on the California side because they know their buddies over the river in Arizona have a tool that they don't have access to, and they are frustrated. It is slow, it is delayed, and it is years later maybe that tool does show up on the toolbox. And it is just differences in how states approach innovation.

Mr. TAYLOR. Sure. All right. Thank you.

Mr. Cameron, as a farmer at the Terranova Ranch for nearly 40 years, I think you can provide a unique perspective on the changes in the agricultural industry. From technology and equipment to yield and productivity, things have changed immensely in the ag industry over the last 40 years. During that time, I am sure you have seen new technologies that helped, some that weren't the right fit, and maybe even some that you thought were going to be widespread but ultimately did not take off. America has been built on consistently changing and improving, but it can take time for adoption to occur. I am curious, as a farmer, could you talk about how adopting new technologies, especially from startup companies, can be a daunting task?

Mr. CAMERON. Yes, we have worked with several startups over the years. We have actually worked with a company that is producing nitrogen fertilizer out of the atmosphere with electric energy. They came to our farm. We gave them a corner of the ranch. We actually had Secretary Vilsack see that and called it lightning in a bottle. Now, due to Federal grants, they upsized, and they are now going to start groundwork for a new facility in California in September.

So I think working growers can help. They can give them advice. There are things that are going to be great for agriculture, but the changes I have seen over the years are immense. I have a VAPAM sodium metam 1 quart container that was purchased at Kmart generations ago, and now we know the restrictive nature of using that product. We have come a long way. We have improved a lot. I think we have a great future as long as we continue with research development and being open to new products.

Mr. TAYLOR. Right. Are there things that we can do, meaning Congress, to incentivize the adoption of these things other than make them cheaper, subsidize them? Are there other things we can do?

Mr. CAMERON. Yes, I mean, we know that maybe tax breaks for new developments possibly for incentivizing growers to make adoption of new technology. There are a lot of ways to incentivize farmers to get these new methods on-farm.

Mr. TAYLOR. Okay. Thank you very much. I appreciate everyone's time and sacrifices you made to be with us today, and sorry about that.

I yield back, Mr. Chairman.

The CHAIRMAN. I thank the gentleman, yields back. I now recognize the gentleman from California, Mr. Gray, for 5 minutes.

Mr. GRAY. Thank you, Mr. Chairman and Ranking Member Craig, for holding this timely hearing, and thank you to our witnesses for being here today, appreciate that.

I find myself concerned about the narrative developed around the health and safety of our crops. Farmers are under increasing stress, tariffs, labor, changes in energy policy, and I think these last few years have really revealed just how fragile our food production system can be. We must focus on science and research to ensure everyone has access to safe and healthy food, but the Central Valley grows healthy food, point blank, full stop. From vegetables to fruits to nuts, our producers are at the core of ensuring America is healthy.

Our farmers care deeply about feeding Americans safe products and do so under a uniquely stringent regulatory environment in California. I worry that what seems to be a well-intentioned movement is achieving the opposite. By not following the science and creating dangerous narratives that go against what research and our institutions have told us, we endanger farmers even more.

Mr. Cameron, it is great to see you here in Washington. I find myself concerned that while the MAHA report may claim it has the goal of making America healthy, the actual conclusions in the report are faulty. If you were writing your own report justifying your production practices and making suggestions for a healthier population, what would you include?

Mr. CAMERON. Thank you, Congressman. We know that we are producing the finest and highest quality food in the world with the safest practices for our workers, for our communities. We are doing the right thing. We are glad to see fresh fruits and vegetables being mentioned, and increased consumption would be fantastic. That would help all of us in the farming community.

We demand science at the base of decisions moving forward. We feel very strongly that sometimes we get emotion. I know that TikTok people that get a following may not be true, could be great, but we want to see science as a basis for any decisions moving forward, absolutely.

Mr. GRAY. I appreciate that sentiment. I don't think we can expect our farmers to adapt to a constantly changing narrative around their crop protection tools while at the same time stripping away the staff and resources needed to ensure farmers feel safe adopting these new technologies.

Just this weekend, in fact, the Administration instructed further cuts at the EPA, closing down the Office of Research and Development. These staff cuts lead to further delays in critical approval processes and frankly slow the opportunity for innovation in the crop production space.

Mr. Witherbee, in your testimony, you call for the creation of science-based risk proportionate pathways that recognize the unique properties of biological and gene-edited pest control tools. Could you go ahead and elaborate on that? Is the EPA adequately equipped to assess these technologies, or do they need additional funds or perhaps specific scientists to efficiently and effectively review this type of technology?

Mr. WITHERBEE. Yes, I think that, unfortunately, they are regulating to legislation that has been put in place for chemicals. As we start to look at some of these new technologies now, they are adapting to some of these. It is just slow, and a lot of times it is plant first and then followed by other biologics or other things. And so it is just not fast enough, and it is not across the board.

The same scientific decisions that are being made, is it safe to the environment, is it safe to people, should we not be able to go and test that, those three things are kind of key pieces to this to move it forward and to allow for the universities to test, and then from that, the data is there in order to approve it to move on to commercialization and into the growers' hands.

Mr. GRAY. Thank you. Mr. Chairman, I yield back the rest of my time.

The CHAIRMAN. The gentleman yields back.

I am now pleased to recognize the gentlelady from Florida, Congresswoman Cammack, for 5 minutes.

Mrs. CAMMACK. Well, thank you, Mr. Chairman. Thank you to our witnesses for being with us today. I really do appreciate the commentary that has been put forth today. It is a vital topic. As the lone Representative for the entire State of Florida being a very large ag state and production state, it is critical, so thank you.

I will start with you, Mr. Cameron. As you stated in your testimony, IR–4 is a key resource for our specialty crop producers. And as so many of you know, Florida is home to 300 specialty crops, so something that is near and dear to our hearts. Can you share with us some of the breakthrough innovations over the last few years that that has enabled?

Mr. CAMERON. I apologize. I don't have specific results for you, but I do know that this has been a very successful program. We haven't had to deal at our location with products that have gone through the IR–4 process, although we are dealing with—I take that back. We are running tests currently through the IR–4 Project for a pesticide that is used in some of the other commodity crops that we are trying on processing tomatoes. We want to see if there is a fit, seeing if we can control thrips early season so that we can get control where we usually don't have products that fit that need. So it is getting to the farm. Maybe some other farms, possibly more, but we are always looking for new solutions.

Mrs. CAMMACK. Well, and I know you have touched on this a little bit today, Mr. Cameron, but talk a little bit about the role that Congress can play explicitly just so folks back home can really un-

derstand the role that we here can have in making sure that our producers, particularly as it relates to specialty crops, have access to safe and effective crop protection options. And you can talk through regulatory reform, research investments, or other means. But really for the folks back home, what is the most important thing Congress can be doing?

Mr. CAMERON. Well, I think many times specialty crops get left out of the mix. We know that——

Mrs. CAMMACK. Preach. Thank you. Amen.

Mr. CAMERON. No, we realize that, let's face it, the commodity crops that have millions of acres, it is a bigger market, gets more attention. In California, we have crops that you may only have 100 acres, 200 acres in very small specific crops that are being grown, and they are totally uncovered. They don't have the crop protection chemicals because nobody has pursued the label. That makes it very difficult to grow crops similar to very small plots when you compare it to the rest of the nation. So we always do need like an IR–4 Project. We need Section 18, Section 24 where we have local needs that we can actually bring certain products into those situations.

But many times, it takes a long time to develop those, so emergency situations even for larger minor crops, so any help we could get either in funding for research to where we can develop a label for some of these minor crops.

I mentioned earlier my neighbor planted agave, low water use. We will see how that works out, but absolutely no products can legally be used on that crop for crop protection. So anything you can do for funding to get into the IR–4 Project, the FAR program to where we can actually see results in the field in growers' hands is invaluable.

Mrs. CAMMACK. Okay. I appreciate that, Mr. Cameron.

I am going to go to you, Mr. Witherbee. As you know, the Asian citrus fly has decimated our citrus growers in Florida really and across the country. Have you performed any research on whether a sterile insect technique could be applicable in combating citrus greening?

Mr. WITHERBEE. It is a little tougher mechanism of action, unfortunately. It could help. You start to suppress the amount of insects that are available to link up to the orange, and then you can decrease greening. It is a bigger problem, and so it is one of those where it would require research. We know it is important, but it is also a specialty crop where the return on investment is really tough. And so part of it is funding that would go into a lot of that research for new technologies just hasn't been there. It has been in some cases, but this is where, over the years, like I said, the delays that would take to get it even if it was emergency use would be really tough to get something new into that industry very quickly.

Mrs. CAMMACK. Well, I think you are making the case as to why the research dollars are so critically important.

Mr. WITHERBEE. Yes.

Mrs. CAMMACK. And of course we are very proud of the fact that the farm bill includes another 5 years' worth of funding to combat

citrus greening because you can't have Florida without oranges, right? So thank you.

My time has expired, Mr. Chairman. I yield back.

The CHAIRMAN. I thank the gentlelady. And actually, what we just passed is 6 years' worth of funding.

I am pleased to recognize my good friend from California, Mr. Carbajal, for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. And thank you to you and Ranking Member Craig for having this important hearing.

Mr. Cameron, you are from paradise, also known as California, and I am really glad that you are imparting your wisdom onto the rest of our country today. I represent the Central Coast, which is an even focused paradise within paradise in California. And Ranking Member Craig was just in my district this past weekend, and I was talking to the Chairman about him visiting as well, and so I hope you enlighten him as to why he should come and have a good time and see the great agriculture in our state.

Specialty crops are both unique and delicate and come with many challenges when it comes to protecting them against pests, invasive pests and disease. You mentioned in your testimony that farmers have been investing in innovation to improve methods to manage pests while reducing risks to people, property, and the environment. What are some of the most effective ways this Committee can support those efforts? And how can research at our local universities help specialty crop growers adopt safer and more effective pest management strategies?

Mr. CAMERON. So, we are looking at—I apologize. The first part of your question was related to——

Mr. CARBAJAL. What are some of the most effective ways this Committee can support those efforts?

Mr. CAMERON. We believe that additional money for research within California for specialty crops is imperative either through the IR–4 Project, the FAR program, Specialty Crop Block Grants, working directly with universities to fund research for specialty crops. As you know in California, I hate to say this, but we grow over 400 specialty crops, and we have a lot of minor crops that need attention that usually don't get the funding and the light shone on them to get results done in the field.

We know that the universities are involved in many aspects of crop production and doing research. We know the Strawberry Commission does work at Cal Poly within your district. They have a great grant there. The university is very well engaged with agriculture, as is UC Davis, Fresno State, and some of the other minor colleges, UC Merced as well.

So we know that funding is what we need. We need to be able to do the research, engage with the farmers, show them what is going on and new avenues, new ways of doing things. It is really the only way we are going to get the technology down to the grower level.

We also know that the University of California Extension is great for moving that information through their ag advisors.

Mr. CARBAJAL. Thank you. I always like to remind people that California is the largest agriculture state in the country, just saying.

Mr. Cameron, you noted in your testimony that dual pesticide registration process with the state and EPA can slow down the adoption of biologicals. From your perspective, how can Federal and state agencies better coordinate to ensure that these tools are both safe and more readily available to growers?

Mr. CAMERON. As you stated, there is a delay when we move from Federal to state registration for products. I believe that parallel registration, working with the—maybe get an MOU between California Department of Pesticide Regulation and the Federal EPA office so that when products do come and if they are going to have a fit in California that we start the registration process at the same time so that we get registration concurrent. As you know, we increased the mill tax for pesticides last year with the idea that we are going to get products moving through the system at a more rapid pace.

California farmers, especially crop growers, are innovative. They want new tools. They want new technology, and they are always willing to adopt.

Mr. CARBAJAL. Thank you, Mr. Cameron. Finally, Mr. Cameron, as this Committee continues to work on a farm bill, I would like to revisit a point you raised in your testimony regarding integrated pests management, or IPM, which is already being used by many growers. What more can Congress do to help support methods like the use of integrated pest management so growers can protect their crops, keep their operations strong, and increase crop resiliency?

Mr. CAMERON. I think pest management starts with your soil. We need to have healthy soils. We need to have funding for practices that will improve soil quality because I think you start out with a healthy plant, an insect is less likely to cause the damage. I think there are programs through NRCS for funding into California that we could expand on. But, getting new products out quicker at the Federal level would be great.

Mr. CARBAJAL. Great. Thank you, Mr. Chairman. I am out of time.

Thank you, Mr. Cameron.

The CHAIRMAN. The gentleman yields back.

I am now pleased to recognize the gentleman from Illinois, Mr. Jackson, for 5 minutes.

Mr. JACKSON of Illinois. Thank you very much, Mr. Chairman. I appreciate each one of you coming out today for your testimony.

I would like to first start with Mr. Abbott. You noted in your testimony that the MAHA Commission's report "undermines trust in the regulatory process by citing unverifiable sources, omitting key stakeholders' voices, including farmers"—how about that? We are missing farmers at the table—"food producers, and scientists and making sweeping claims not grounded in the science or structure of the current systems." I agree, and I am concerned that MAHA's stated goals diverge strongly from what was reported in this document. Moving forward, what would you like to see from the commission to believe that they are actually engaging in an honest scientific process?

Mr. ABBOTT. Well, thank you for your question, Congressman. I just would really like to see it based in science. I mean, that is how we have gotten to where we are at today. That is how we have got-

ten the tools that the farmers use today and where we are going to go in the future, so we need sound science reviews. And then I can't speak for the MAHA Commission and what they have been doing, but what I can say is we all want safe, healthy food for not only our children but our own families and everybody, right? So it is all about food security and food safety.

Mr. JACKSON of Illinois. Well, thank you so much. We need a few more farmers and producers at the table and a few less lawyers, correct?

Mr. ABBOTT. Absolutely.

Mr. JACKSON of Illinois. Thank you so much.

Mr. Cameron, in your testimony, you mentioned EPA being understaffed. I share this concern, and I worry that EPA will not be able to approve the novel products or get through their backlog of registrations review. As we see increasing resistance to existing pesticides and a shift in consumer sentiment towards a reduction in pesticides, how critical is it that you get access to new products?

Mr. CAMERON. I think it is actually really critical for farmers to have new products in their hands, either biologicals or more specific, targeted crop protection products. We know that the public would like to see more of these. There is a hesitancy in traditional pesticides being used on crops. We know they are safe, but we would really appreciate seeing new products get through the process much quicker. Even ones that are coming out now have been in that process for 5 to 10 years, so we are dealing with older technology already.

We know that technology is moving fast with AI. New products are coming quicker, but they are getting backlogged at EPA, and they are not getting into the farmer's hands. We would love to see that changed.

Mr. JACKSON of Illinois. Thank you. I agree with you as well. We need to make sure there are more scientists, not fewer, that we can keep and preserve this great benefit we have on being a nation that can feed the world, and that innovation starts with education and research. Unfortunately, we have taken a retreat on cutting back on that scientific progress.

And also let's be clear, you don't always get the thing that you were investigating. Sometimes there is an ancillary, there is something serendipitous, another surprise just from doing the research.

For Mr. Witherbee, thank you so much for your time and attention being here. You have seen an increase in resistance to pesticides over the years with limited new chemical development. How do technologies such as Agragene improve our ability to fight pests and limit chemicals in the environment? And I must say, as a nation, as we speak today in 2025, and we are experiencing a heat dome, and we have seen flash floods, and we have seen these new weather patterns where some parts of the nation are experiencing drought, others are experiencing rainfall, and now we are under this heat that this—just to start with the pesticides, there are heat-resistant grains that have to be produced because our climate is altering. Will you please speak to that?

Mr. WITHERBEE. Yes, I still think it is the science that is going to lead us there, and part of it is part of these solutions. As the climate changes, as the pests change, how they migrate, how they

move, we are going to need these tools available. It is not going to be one silver bullet that ever solves it. It is going to be the science that leads us there. It is going to be multiple products. It is going to be putting it into the hands of the users to best find out how to do that.

Part of that research is really important that we are talking about these land-grant universities having land where they can test these new products in the environments that they are going to be used. Part of that investment has got to be on crops. Part of early development, you have to do crop destruct. No grower, no farmer is really going to want to test something new if they have to destroy the crop and not take profit from it. So we need the land-grant universities to be able to do some of that testing. They are also trusted by the growers and the farmers. It is very important.

Mr. JACKSON of Illinois. Well, I thank each and every one of you. Dr. Wyant, I look forward to working with you in the future.

I yield back my time. Thank you, Chairman Thompson.

The CHAIRMAN. The gentleman yields back.

Before we adjourn today, I invite the Ranking Member to share any closing comments that she might have.

Ms. CRAIG. Thank you so much, Mr. Chairman.

Throughout this hearing, we have heard about innovations that are primed to come to the market and help farmers use the tools that are available to them to grow crops more efficiently. For farmers to continue their progress and for industry to thrive, we do need a fully staffed Environmental Protection Agency. For companies to have regulatory certainty and remain viable, they need to have their products reviewed in a timely manner. Reducing the number of scientists at the EPA doesn't change the regulatory system. It just leads to worse customer service and longer wait times. There is certainly room for reform in our regulatory system, but those reforms should make the system work better, not worse.

For the past 100 years, we have seen immense progress in food safety and food production efficiency. These two things can and should go hand in hand, but the MAHA Commission is headed the opposite direction. They are advocating for change that makes our food supply less safe and makes it harder for farmers to do their jobs. I hope that we can keep the information we heard today in mind and that the testimony of the witnesses will give us the courage to hold the Administration accountable when they begin to degrade our food safety system or undercut our farmers.

None of this is about ideology. It is about doing the right thing for our farmers. It is about ensuring government and private-sector partnerships that work together based on sound science. I think the future remains bright for America's farmers and biotechnology innovation so long as we can keep the crackpots and the conspiracy theorists from hijacking our nation's public health and food policy.

Thank you, and I yield back.

The CHAIRMAN. I thank the gentlelady.

I want to start my closing comments by just thanking the witnesses. All four of you bring tremendous experience and just a foundation in science when it comes to looking at the chemical products that our farmers need. And these are products that im-

pact not just crops. I know we were pretty well focused on crop protection, but I heard mentions to the New World screwworm and probably some other impacts on livestock as well. So this really is a hearing that applies to not just crops but also livestock.

And I want to thank our staff on both sides of the aisle for doing such a great job of helping prepare us for what I thought was a very fruitful hearing here as we enter into our bipartisan work on what I have been affectionately calling Farm Bill 2.0.

American agriculture can be defined clearly as *science, technology, and innovation.* We have a record of that. It is undeniable. There are fewer applications of this definition than what I view of the crop and the livestock protection products that are out there. And just an example—and I give credit to Secretary Kennedy, who is responsible for the FDA—within the past week, their approval of a medication, basically in the poultry industry to address the northern fowl mite, which has an impact on the health of the birds and also decreases egg production. And we all remember the egg crisis here that we experienced earlier. And so that is an FDA approval that came out within the past—well, probably 5 days ago under the leadership of the FDA, which is under the jurisdiction of Secretary Kennedy, and much appreciation for that, probably the most recent example of using science, technology, and innovation to provide agriculture solutions.

The development of all critical agricultural products for food security is, quite frankly, well-grounded in science. We must assure the scientific review of these products that have to be completed with efficacy and efficiency to assure effectiveness in farmer tools to deal with environmental challenges, whether they be pests, diseases, or weather. American agriculture really is the envy of the world because we have embraced science, technology, and innovation. And we cannot allow bureaucracy to delay or block that commitment to progress.

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

This hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 1:49 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED *FEDERAL REGISTER* RULE BY HON. ALMA S. ADAMS, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

Federal Register
Vol. 90, No. 90
Monday, May 12, 2025
Page 20083

Rules and Regulations

Department of Agriculture

Agricultural Marketing Service

7 CFR Part 110
[Docket No. AMS–AMS–25–0019]
RIN 0581–AE38

Rescission of Recordkeeping on Restricted Use Pesticides by Certified Applications

AGENCY: Agricultural Marketing Service(AMS), U.S. Department of Agriculture.

ACTION: Final rule.

SUMMARY: This action rescinds regulations pertaining to Recordkeeping on Restricted Use Pesticides by Certified Applicators; Surveys and Reports.

DATES: The final rule is effective July 11, 2025.

FOR FURTHER INFORMATION CONTACT: Erin Morris, Associate Administrator, AMS, USDA, Room 2055–S, 1400 Independence Ave. SW, Washington, DC 20250; Telephone (202) 690–4024, or Email *erin.morris@usda.gov*.

SUPPLEMENTARY INFORMATION: The United States Department of Agriculture's (USDA) regulations governing Recordkeeping on Restricted Use Pesticides by Certified Applicators; Surveys and Reports are contained in part 110 of title 7 of the Code of Federal Regulations (CFR). These regulations set forth the requirements for recordkeeping on restricted use pesticides by all certified private and commercial applicators. These regulations require the Secretary of Agriculture, in consultation with the Administrator of the Environmental Protection Agency (EPA), to ensure certified applicators of restricted use pesticides (described under 7 U.S.C. 136a(d)(1)(C)) maintain records comparable to records maintained by commercial applicators of pesticides in each state. Upon reviewing these regulations, USDA has determined that they should be rescinded due to their obsolescence.

The record-keeping program was defunded and closed on September 30, 2012, when it was determined that the Federal funding was insufficient to cover the costs of all state cooperators. Twenty-three state programs have since come to operate their own programs and (1) have implemented procedures to inspect certified applicators when complaints are filed; or (2) they combine pesticide recordkeeping inspections with other state and Federal inspections during one visit to a certified private pesticide applicator. These state programs produce and distribute their own educational outreach materials and information.

Other state programs that operated under the Federal regulations and were no longer funded discontinued surveillance or random inspections of certified private pesticide applicators and no longer provided educational outreach and materials. Many of these states have continued to conduct pesticide recordkeeping inspections when a complaint is registered against a certified applicator in order to support state compliance actions.

Furthermore, upon closure of the program, the EPA incorporated training on many of the recordkeeping and reporting requirements into Worker Protection Standards, which apply to many certified private pesticide applicator operations.

USDA has determined that each of these reasons, independently and alone, justifies rescission of the Recordkeeping on Restricted Use Pesticides by Certified Applicators; Surveys and Reports regulations. Regardless of the benefits of the regulations, USDA must not maintain regulations that are obsolete. USDA has determined that there is no reliance interest in an obsolete regulation. Moreover, regardless of the lawfulness, USDA has no interest in maintaining a rule that is obsolete.

To the extent there is any uncertainty about the costs and benefits of the Recordkeeping on Restricted Use Pesticides by Certified Applicators; Surveys and Reports regulations, it is the policy of USDA to err on the side of deregulation. USDA's limited resources should be focused on fairly and rationally enforcing a discrete and manageable number of regulations. The regulations in Recordkeeping on Restricted Use Pesticides by Certified Applicators; Surveys and Reports are not a priority.

List of Subjects in 7 CFR Part 110

Administrative practice and procedure, Agricultural commodities, Intergovernmental relations, Penalties, Pesticides and pests, Reporting and recordkeeping requirements.

Under the authority of 7 U.S.C. 136a(d)(1)(c), 136i–1, and 450; 7 CFR 2.17, 2.50; and for the reasons set forth in the preamble, AMS amends 7 CFR subtitle B chapter 1 as follows:

Part 110—[Removed]

■1. Remove part 110.

Bruce Summers, *Administrator,* Agricultural Marketing Service.

[FR Doc. 2025–08220 Filed 5–9–25; 8:45 am]

Billing Code P

SUBMITTED QUESTIONS

Questions Submitted by Hon. John W. Rose, a Representative in Congress from Tennessee

Response from Terry Abbott, Chairman, Council of Producers and Distributors of Agrotechnology; Sr. Product Portfolio Manager, Adjuvants Unlimited

Question 1. Mr. Abbott, in your written testimony, you mentioned that the integrity of the U.S. Pesticide Regulatory System had been challenged by recent narratives. While I think I understand the broad goals of the Make America Healthy Again (MAHA) movement, I also share concerns regarding the origination of many of the claims made and the future repercussions for the agriculture industry and food supply.

Mr. Abbott, if crop protection tools, like pesticides, become scarcer, how will crop production, grocery prices, and the food supply be affected in the future?

Answer. We have seen real-world examples of what happens when access is curtailed by political decisions rather than science. Sri Lanka's abrupt ban on pesticides led to widespread crop failures, food shortages, and economic turmoil. While our system is far stronger, the principle remains: without reliable access to safe and effective tools, our ability to produce an abundant and affordable food supply is at risk.

Question 2. Mr. Abbott, can you elaborate on how the MAHA Commission should work in tandem with agriculture stakeholders and accredited scientists to ensure crop protection tools are safeguarded while also delivering on an agenda to provide an even healthier food supply?

Answer. The MAHA Commission has a responsibility to ground its work in science and to engage those who actually grow and supply the nation's food. Unfortunately, its initial report leaned heavily on unverifiable sources and overlooked critical voices from farmers, food producers, and accredited scientists. If the Commission is to succeed, it must shift course and fully integrate agriculture stakeholders into the process.

That means ensuring U.S. growers, land-grant universities, and scientific experts have a seat at the table when recommendations are developed. It also means recognizing that the United States already has the most rigorous pesticide regulatory system in the world that protect consumers and the environment. Strengthening, rather than sidelining, that system is the best path to both a healthier food supply and a resilient farm economy.

Response from Karl Wyant, Ph.D., Director of Agronomy, Nutrien

Question. Dr. Wyant, there has been a constant battle between agricultural innovation and the authority surrounding the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Do you believe FIFRA has been weaponized at times, and how should the Federal Government clarify the regulatory provisions in the law to ensure advancements are not stifled?

Answer. Innovation thrives when suppliers can introduce new technologies to growers at a reasonable cost and in an efficient and predictable timeframe, where regulatory hurdles are robust but not overly burdensome. It is my view that biostimulants products should be excluded from FIFRA regulations as this would introduce undue regulatory burden, as biostimulant products are a distinct product category. At the same time, I believe that a formal Federal definition of the biostimulant category would help level the regulatory playing field across all 50 states and

allow our growers greater confidence in the inputs they purchase and more certainty for our industry.

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