

**Testimony of Deputy Under Secretary for Research, Education, & Economics
Scott Hutchins
U.S. Department of Agriculture before the U.S. Senate Committee on Agriculture,
Nutrition, and Forestry
Agricultural Research and 2018 Farm Bill Implementation**

Good morning. Chairman Roberts, Ranking Member Stabenow and members of the Committee, thank you for the opportunity to speak to you all today to discuss agricultural research and implementation of related provisions in the 2018 Farm Bill. The Research, Education, & Economics (REE) Mission Area at USDA is an incredible team and powerful force for the good of U.S. Agriculture – we have fantastic success stories each and every day, and I appreciate the opportunity to share a few of those with you today, as well as inform you on the progress we have made in the implementation of the 2018 Farm Bill.

The REE Mission Area is comprised of four agencies; the Agricultural Research Service (ARS), the Economic Research Service (ERS), the National Agricultural Statistics Service (NASS), and the National Institute of Food and Agriculture (NIFA). Each of these agencies provide services that are critical to the well being of the American agriculture system- provider of the most affordable, abundant, and safe supply of food and fiber in the world.

ARS

The Agricultural Research Service is United States Department of Agriculture's (USDA) primary intramural research agency. ARS has approximately 2,000 scientists and post-doctoral researchers and 6,000 additional staff supporting around 690 research projects over 90 locations. These researchers produce an immense output of scientific and technical knowledge. ARS scientists produced over 4,500 peer-reviewed journal articles in 2018 alone. Without a doubt,

ARS has produced, and continues to produce, a wide range of scientific breakthroughs that benefit U.S. Producers and Consumers.

Among these are a new bio-based insect repellent that uses fatty acids derived from coconut oil to ward off blood-sucking insects that cost the cattle industry more than \$2.4 billion annually, a test strip for major foodborne pathogens that reduces testing time from 24-72 hours to about 30 minutes, and a new insecticide for use on the fruit fly – methyl benzoate.

As you know, ARS is one of the two USDA agencies, along with the Animal and Plant Health Inspection Service (APHIS), responsible for the stand up and management of the National Bio and Agro-Defense Facility (NBAF). NBAF will be a state-of-the-art science facility whose capability will ensure the U.S. is best prepared for threats to agricultural and food security. Recently USDA signed a memorandum of agreement with the Department of Homeland Security (DHS) to enable the transfer of responsibilities for this facility to USDA.

ERS

The Economic Research Service continues to be a trusted source of high-quality and objective economic research to inform and enhance public and private decision making. ERS research covers a range of topics which fit generally into six buckets: Agricultural Economy, Food and Nutrition, Food Safety, Global Markets and Trade, Resources and Environment, and the Rural Economy. ERS reports provide information to decision makers across the Federal government. I personally request briefings on many reports and analysis of key topics and find them insightful and informative.

Recent ERS reports have highlighted trends in sales and development of veterinary antibiotics, a slowing of retail food price inflation, and food loss amounts at the farm level.

Additionally, ERS has provided studies showing the impact that agriculture has on the larger economy. For instance, ERS found that U.S. Agricultural Exports supported 1.2 million full time jobs in 2017.

NASS

The mission of the National Agricultural Statistics Service is to provide timely, accurate, and useful statistics in service of U.S. Agriculture. They conduct hundreds of surveys each year and produce reports on the entire agricultural sector, including production and supplies of food and fiber, prices paid and received by farmers, farm labor and wages, farm finances, chemical use, and changes in the demographics of U.S. Agriculture.

Earlier this year we were proud to have the opportunity to provide NASS's largest and most visible report, The Census of Agriculture. Conducted every five years, the Census of Agriculture provides a complete count of U.S. farms, ranches, and the people who operate them. The Census also looks at ownership, operator characteristics, production practices, income and expenditures.

Highlights from the 2017 Census include:

- One in four producers is a beginning farmer with 10 or fewer years of experience.
- Thirty-six percent of all producers are female, and 56 percent of all farms have at least one female decision maker.
- Ninety-six percent of farms and ranches are family owned.
- Farms with Internet access rose from 69.6 percent in 2012 to 75.4 percent in 2017.

NIFA

The National Institute of Food and Agriculture is USDA's extramural research agency, providing funding and leadership to support research, education, and extension programs that address national agricultural priorities. NIFA primarily does this through competitive and formula grants.

The competitive grant portion is comprised of different grant programs with the largest being the Agriculture and Food Research Initiative (AFRI). Because of AFRI, grants researchers across the country were able to conduct research and find solutions to problems that face our producers. For instance:

- Researchers at the University of Illinois found that cooperating with neighboring farmers to make decisions about how to manage herbicide-resistant weeds delays the spread of herbicide resistance. Corn and soybean producers in North America lose more than \$40 billion per year to herbicide resistance.
- Clemson University researchers are using new nutrient-management drone and camera technology to save up to \$54 per acre on cotton production.
- Fellow entomologists at my Alma Mater, Auburn University, have discovered a wasp that may help soybean producers and other farmers in the Southeast rid their fields of the invasive pest known as the kudzu bug, enabling them to produce more crops and see higher yields.
- And researchers at Kansas State University are using the gene editing tool CRISPR to improve the wheat genes that control several yield component traits, such as seed size and the number of seeds per plant.

Formula grants are grants that go to land-grant universities to support them in conducting agricultural research and extension. While much of this funding is used to support research projects similar to those conducted on the competitive grant side, formula funding is also used to support the basic research and extension infrastructure needed to disseminate knowledge and provide training to individuals in a variety of ways.

One example of this is at North Carolina State University, where extension professionals and volunteers provided 13,000 educational programs to 1.9 million residents. Their efforts improved the health and well-being of 115,000 North Carolinians through food and nutrition programs, prepared more than 263,000 youth through 4-H programs, and provided \$300 million of economic impact to the state.

However, it is not just farmers and ranchers who benefit from these programs. There are millions of family caregivers and more than 80 percent of them feel they don't have the information or training they need. With a NIFA formula grant, Family & Consumer Sciences educators from Oklahoma State University Cooperative Extension have developed a comprehensive health education curriculum that includes lessons in proper nutrition, aging and finances, and prevention of elder abuse and exploitation.

An additional aspect of NIFA is to support workforce development, including the 4-H organization. In 2018, NIFA-funded programs supported 104,149 students through recruitment/retention, curriculum development, and faculty development. Through 4-H, NIFA supports a new generation of community leaders.

Office of the Chief Scientist

In addition to serving as Deputy Under Secretary, I oversee the Office of the Chief Scientist. The Office of the Chief Scientist supports scientific prioritization and coordination across the entire Department and regularly convenes the USDA Science Council. The council facilitates cross-Departmental scientific coordination and collaboration, and ensures research supported by and scientific advice provided to the Department and its stakeholders is held to the highest standards of intellectual rigor and scientific integrity.

Recent media reports of suppression of climate change research simply could not be further from the truth. USDA has no policy, no practice, and no intent to minimize, discredit, de-emphasize, or otherwise influence the excellent climate-based science of any agency or partner institution. We support the work done by our scientists in this area of our research. Tools such as USDA's Climate Hubs and the Long-Term Agroecosystem Research (LTAR) Network communicate climate research *directly* to the producers these changes most directly impact. Additionally, the National Climate Hub Coordinator compiles a quarterly report that provides information on publications, outreach events, and technical support. We are fully committed to supporting research that ensures U.S. producers will be able to adapt to a changing climate, even as we develop and advocate for a wide range of sustainable intensification practices that will help mitigate any contribution from agriculture to the broader core issues of greenhouse gas emissions.

2018 Farm Bill Implementation

REE held a special listening session on March 21, 2019 to begin the process of Farm Bill implementation, with all REE leadership present. While each of the four REE agencies and the Office of the Chief Scientist were included in the Farm Bill, the vast majority of the provisions pertain to NIFA. Thus far, NIFA has:

- Published the Request for Applications (RFA) for the Organic agriculture research and extension initiative (OREI).
- Published the updated matching requirements chart and indirect cost chart on its website and sent an update to all stakeholders.
- Published the RFA for The Beginning Farmer and Rancher Development Program (BFRDP) component of the Farming Opportunities Training and Outreach.
- Published a Federal Register Notice regarding new Non Land-Grant Colleges of Agriculture certification process. Currently, NIFA has certified 39 Non Land-Grant Colleges of Agriculture using the updated definition.
- Held multiple listening sessions and webinars for feedback on how to best implement the new 1890 Scholarship program.
- Provided guidance to 1890 universities regarding the change to carryover of funds for extension at these institutions.
- Published the RFA for the Gus Schumacher Nutrition Incentive Program (Formally known as FINI)

ERS/NIFA

In August 2018, Secretary Perdue announced that the Department would be relocating both the Economic Research Service (ERS) and the National Institute for Food and Agriculture (NIFA) outside of the National Capital Region. We believe this decision will improve USDA's future ability to attract and consistently retain highly qualified staff with training and interests in agriculture from numerous land-grant universities to complement the current talented staff, to place these important USDA resources closer to many of our stakeholders and to benefit the American taxpayer. Following a rigorous site selection process, on June 13, 2019, the Secretary

announced the final selection of the Kansas City Region as the new home for these agencies. A short driving distance from multiple land-grant and research universities, Kansas City is a vibrant urban center in the heartland of America and a growing agriculture hub. It is also already home to a considerable Federal workforce, including a significant presence of USDA employees and the Kansas City 'Ag Bank' Federal Reserve. Potential savings will allow more funding for research of critical needs like rural prosperity and agricultural competitiveness, and for programs and employees to be retained in the long run, especially in the face of tightening budgets.

As a result of this move, no ERS or NIFA employee will be involuntarily separated. Every employee who wants to continue working in their position will have an opportunity to do so, although that will mean moving to a new location for most. Employees will be offered relocation assistance and will receive the same base pay as before in tandem with the locality pay for the new location.

The work of NIFA and ERS is essential, and we know that our employees are our most valuable asset. ERS and NIFA leadership, under the direction of the REE Mission Area, are working diligently to implement this transition efficiently and with minimal disruption to our employees and mission critical work.

In conclusion, thank you for allowing me the opportunity to highlight some of the fantastic research being done in the Research, Education, & Economics mission area, provide an update on the status of Farm Bill Implementation as well as address some specific topics of interest. Thank you for your continued support of this vital aspect of the services USDA provides in our quest to "Do Right and Feed Everyone." I look forward to answering your questions and I thank you for the unwavering bipartisan support that this Committee has always shown for Agriculture and Agricultural research and innovation.