Written Public Witness Testimony of  
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Before the  
House Appropriations Subcommittee on Agriculture, Rural Development, Food and Drug Administration and Related Agencies

March 23, 2015

Subject: FY16 Appropriations—Support for the Agricultural Research Service and National Institute of Food and Agriculture.

Dear Chairman Aderholt and Ranking Member Farr and Members of the Subcommittee:

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) urge the subcommittee to support the following areas of the Department of Agriculture’s (USDA) Research, Education, and Economics (REE) program areas in fiscal year 2016 budget:

$1.192 billion for the Agricultural Research Service (ARS) and
$1.508 billion for the National Institute of Food and Agriculture (NIFA)

Within NIFA, we specifically support:

$450 million for Agriculture and Food Research Initiative (AFRI),
$256 million for Hatch Act formula funding, and
$304 million for Smith-Lever 3(b) and (c) funding
The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA), represent over 18,000 scientists in academia, industry, and government, 12,500 Certified Crop Advisers (CCA), and 781 Certified Professional Soil Scientist (CPSS), as the largest coalition of professionals dedicated to the agronomic, crop and soil science disciplines in the United States. We are dedicated to utilizing science to manage our agricultural system and sustainably produce food for a growing global population.

The success of the U.S. agriculture enterprise is due in large part to the strong investment in food and agriculture research made throughout the 20th century. Because of this investment, the U.S. farmer is among the most efficient in the world and the United States is the global leader in meeting the world’s demand for food. Agriculture and agriculture-related industries contributed $742.6 billion to the U.S. gross domestic product (GDP) in 2011, a 4.8-percent share. In 2012, 16.5 million full- and part-time jobs were related to agriculture—about 9.2 percent of total U.S. employment. However, in the coming decades, our agricultural system will face significant challenges in the form of an increasingly variable climate, limited natural resources and a rapidly expanding global population. Our Nation’s economic prosperity and security depend on our dedication to developing innovative, science-based solutions to meet our growing agricultural needs and managing efficient food systems.

In order to meet these challenges, our nation needs the best and brightest minds to do the research that will lead to innovations and technologies that will help ensure the U.S. maintains its position as a global leader. Expanding the national competitive fellowship program for graduate students and post-doctoral researchers at USDA-REE will make sure these bright minds stay in the workforce pipeline. Providing strong support for the USDA research program listed above
will show students and early career scientists that agriculture research is an attractive and robust career option.

Six of the largest life science companies show they expect to hire more than 1,000 domestic scientist-level FTEs before the end of 2015, representing 13% of their current scientist workforce. The largest numbers of scientists to hire will be in the disciplines of plant sciences, plant breeding/genetics, and plant protection. Nearly half (46%) will need to hold doctoral degrees. Given the current state of the research workforce pipeline, these companies are concerned about their ability to successfully fill this workforce need.

A steadily increasing need for industry professionals outpaces the supply. Both new job growth and retirements help explain the large number of monthly job postings employers release each month. For occupations in agriculture research, economics and engineering fields, an average of 11,600 job ads were posted each month – and nearly 34,000 people were hired in these fields each month – from January to August 2014.

We must close the innovation deficit if the United States is to remain the world’s innovation leader in agriculture. China continues to exhibit the world’s most dramatic R&D growth at 20.7 percent annually, compared to the United States at 4.4 percent growth over the same time period. By 2009, U.S. investments in agriculture R&D fell to a historically low 0.035 percent share of the United States economy, a level far below the total U.S. R&D spending and that which is necessary to meet the critical challenges facing U.S. agriculture in the 21st century.

ASA, CSSA, and SSSA supports $1.192 billion for Agricultural Research Service (ARS), USDA’s intramural research and development programs, and applaud their ability to respond to and address agricultural problems of high national priority. ARS programs and technologies ensure high-quality, safe food and other agricultural products; assess the nutritional
needs of Americans; help to sustain a competitive agricultural economy; enhance the natural resource base and the environment; and, provide economic opportunities for rural citizens and communities. ARS also forms key partnerships that move new technologies to the marketplace. These partnerships are especially important to leverage during a time when our nation’s economy remains vulnerable and federal funding is constrained. Such cooperative research and development helps foster American businesses and enhances the position of the U.S. as a global leader in food, feed, fiber, and fuel production.

**We support $1.508 billion for the National Institute of Food and Agriculture (NIFA), USDA’s suite of extramural programs whose primary role is to provide a link between federal and state research initiatives through partnerships with educational institutions and competitive grant programs. Within NIFA:**

- **We are concerned to see that the administration has once again proposed eliminating the Higher Education Challenge (HEC) Grants, the Higher Education Multicultural Scholars (HEMS) Grants, and the Food and Agricultural Sciences National Needs Fellows Graduate and Postgraduate Fellowship Grants Program.** These programs help grow the pipeline of a future USDA workforce and the related workforce in state and local governments, non-governmental organizations and private industry. Agriculture is at a critical juncture with regard to the diversity of its workforce. Even as the United State population has become steadily more diverse in ethnicity, the population of students graduating in agriculture and natural resources has remained overwhelming Caucasian. The 2012 graduating class in plant and soil sciences was 90% Caucasian and 65% male. To continue its leadership in agricultural production and innovation, the US must encourage all those with scientific talent to consider careers in agriculture.
- **We strongly endorse funding Agriculture and Food Research Initiative (AFRI) at $450 million.** AFRI is the premier competitive grants program for fundamental and applied research, extension and education in support of our nation’s food and agricultural systems. Investments in AFRI bolster work performed by ARS, America’s colleges and universities, the private sector and the American farmer. The 2014 Farm Bill reauthorizes the program and continues the authorization for appropriations of up to $700 million for each of Fiscal Years 2014 through 2018 in order to meet the challenges facing agriculture.

- **We support $256 for Hatch Act formula funds.** These funds provide research grants to our nation’s great land-grant colleges and universities. Any additional cuts to academic funding will reduce the ability of our scientists and students to conduct imperative research such as developing drought resistant wheat varieties.

- **We support $304 million for Smith-Lever 3(b) and (c) funding,** which supports the extension program. The ability to translate and disseminate research findings as widely and quickly as possible is critical to our ability to address emerging agricultural issues.

A balance of funding mechanisms, including intramural, competitive, and capacity funding is essential to maintain the ability of the United States to conduct both basic and applied agricultural research, to improve crop and livestock quality, and to deliver safe and nutritious food products while protecting and enhancing the nation’s environment and natural resource base.

Thank you for your consideration. For additional information or to learn more about the ASA, CSSA, and SSSA, please visit www.agronomy.org, www.crops.org, or www.soils.org.