



American Society of Agronomy • Crop Science Society of America • Soil Science Society of America

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[www.agronomy.org](http://www.agronomy.org) • [www.crops.org](http://www.crops.org) • [www.soils.org](http://www.soils.org)

March 11, 2016

The Honorable Lamar Alexander  
Chairman, Subcommittee on Energy and Water  
Development  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

The Honorable Dianne Feinstein  
Ranking Member, Subcommittee on Energy and  
Water Development  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

The Honorable Mike Simpson  
Chairman, Subcommittee on Energy and Water  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

The Honorable Marcy Kaptur  
Ranking Member, Subcommittee on Energy and  
Water  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Chairmen Alexander and Simpson and Ranking Members Feinstein and Kaptur:

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.

The Nation's economic prosperity and security depend on our dedication to developing innovative, science-based solutions to meet our growing agricultural needs. Since 1948, total U.S. agricultural output more than doubled. Over the same period, the U.S. population also more than doubled. The ability of the farm sector to feed far more people today while using less farmland than six decades ago is attributed to increases in agricultural productivity. The major driver of growth in agricultural productivity is innovation. **Average rates of return to public investments in agricultural research range from 20 to 60 percent.**

We support **\$5.672 billion for the Department of Energy's (DOE) Office of Science** in fiscal year 2017 appropriations.

Energy, agriculture and food production are inextricably linked. To achieve reliable and sustainably high yields, bioenergy plant feedstocks must have the capacity to use water and nutrients efficiently, and withstand pests and disease. The DOE Office of science uses genomics-based approaches and advanced characterization and computational technologies to predictively understand the principles controlling plant and microbial systems important to bioenergy and environmental applications. A recent development in the application of sensors in agriculture is the concept of high-throughput plant phenotyping (funded by DOE). Plant breeders and geneticists are keen to increase the speed at which

they can evaluate genetic plant lines to improve them with respect to characteristics like yield, speed of growth, drought tolerance and pest resistance.

Within the DOE Office of Science, we specifically support:

**\$ 1.937 billion for Basic Energy Sciences (BES)** program, a multipurpose, scientific research effort that fosters and supports fundamental research to expand the scientific foundations for new and improved energy technologies and for understanding and mitigating the environmental impacts of energy use. The research disciplines that the BES program supports include chemistry, soil, mineralogical, and geosciences. These subjects influence virtually every aspect of energy production, conversion, transmission, storage, efficiency, and waste mitigation.

**\$661 million for Biological and Environmental Research (BER)** program, which produces advanced environmental and biological knowledge that supports national security through improved energy production, international scientific leadership, and research that improves the quality of life for all Americans. BER supports these vital missions through competitive and peer-reviewed research at national laboratories, universities and private institutions.

These investments are essential to meeting 21<sup>st</sup> century challenges in public health, food production, national security and global competitiveness. A strong commitment to federally funded scientific research will boost the Nation's capacity for innovation, agricultural productivity and economic prosperity.

Thank you for your consideration. For additional information or to learn more about the ASA, CSSA, and SSSA, please contact Karl Anderson, Director of Government Relations, at [kanderson@sciencesocieties.org](mailto:kanderson@sciencesocieties.org) or 202-408-5382.

Sincerely,

A handwritten signature in black ink, appearing to read "Ellen Bergfeld". The signature is fluid and cursive, with a large loop at the end.

Ellen Bergfeld, CEO  
American Society of Agronomy  
Crop Science Society of America  
Soil Science Society of America

Cc:

Senate Appropriations Committee Chairman Thad Cochran  
House Appropriations Committee Chairman Hal Rogers  
Senate Appropriations Committee Ranking Member Barbara Mikulski  
House Appropriations Committee Ranking Member Nita Lowey  
Members of the Senate Appropriations Subcommittee on Energy and Water Development, and Related Agencies  
Members of the House Appropriations Subcommittee on Energy and Water Development, and Related Agencies