



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

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April 29, 2022

The Honorable Matt Cartwright
Chairman
Subcommittee on Agriculture
House Committee on Appropriations
2102 Rayburn House Office Building
Washington, DC 20515

The Honorable Robert Aderholt
Ranking Member
Subcommittee on Agriculture
House Committee on Appropriations
266 Cannon House Office Building
Washington, DC 20515

RE: FY2023 Appropriations—Support for the National Science Foundation

Dear Chairman Cartwright and Ranking Member Aderholt:

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 8,000 scientists and students, 13,500 Certified Crop Advisers (CCA), and more than 700 Certified Professional Soil Scientist (CPSS). We are the largest coalition of scientists and professionals dedicated to the agronomic, crop, and soil science disciplines in the United States.

In the coming decades, our agricultural system must sustainably produce food and fuel for a rapidly growing global population. The Nation's economic prosperity and security depend on our dedication to developing innovative, science-based solutions to address the challenges facing our food system. We appreciate the appropriations the National Science Foundation (NSF) received in fiscal year (FY) 2022. Yet, as our nation's producers face increasing extreme weather, limited resources, and market uncertainty, NSF's programs become even more important providers of the science they need to stay in business. NSF's Big Ideas initiatives, its core programs, and its unparalleled support for STEM students and the future STEM workforce require increased investment.

We support \$11 billion for the National Science Foundation for the fiscal year 2023. This funding level will put the premier government-funding agency for scientific research on track to address farmers' challenges by increasing the broad knowledge base supported by a wide range of scientific disciplines, such as biology, plant science, chemistry and soil science.

Within NSF we are very supportive of Signals in the Soil program. As Franklin D. Roosevelt stated in 1935, "A nation that destroys its soils destroys itself," and yet our soils are eroding at an alarming rate. This interdisciplinary program is a collaboration among four NSF Directorates, the U.S. Department of Agriculture's National Institute of Food and Agriculture, and five international science organizations to encourage convergent research and high-impact projects that advance a more comprehensive understanding of soil and the systems soils support.

In 2017, NSF launched its ten "Big Ideas," a set of cutting-edge research agendas and processes poised to drive NSF's long-term research agenda. **We are particularly supportive of NSF's Convergence**

Accelerator and Understanding the Rules of Life Initiatives. The Convergence Accelerator puts systems thinking into research practice. Agriculture researchers are uniquely aware of the multiple disciplines, technologies, and expertise necessary to produce realistic and useful information for producers working in large, multi-faceted outdoor systems. From water management to precision agriculture, this program provides support for exactly the kind of systems-level research successful agriculture requires. The Understanding the Rules of Life Initiative aims to address one of the biggest gaps in biological knowledge: our inability to predict an organism's observable characteristics - its phenotype - from what we know about its genetics and environment. This cross-disciplinary research could help create food crops with higher yields or nutritional content and new models for environmental remediation.

ASA, CSSA, SSSA have made the commitment to enhancing the experiences, opportunities, and safety of all Society members by creating a diverse, inclusive, and equitable environment in our scientific fields of study. NSF can play an invaluable role in addressing the equity challenges facing minority and underrepresented groups within the research workforce. We know that students and researchers from disadvantaged backgrounds are less likely to choose a field with unreliable funding. Robust federal funding for NSF can advance a more representative and equitable research enterprise by bolstering the student pipeline, expanding educational programs and grants - especially for MSIs, expanding resources for early career researchers, and facilitating collaborations with diverse stakeholders to address existential threats, such as climate change.

Science is essential. A strong commitment to federally funded scientific research will boost the Nation's capacity for innovation, productivity, and economic prosperity.

Thank you for your consideration. For additional information or to learn more about ASA, CSSA, and SSSA, please contact Rachel Owen at rowen@sciencesocieties.org or 608-268-4965.

Sincerely,

A handwritten signature in black ink, appearing to read 'Luther Smith', with a long horizontal flourish extending to the right.

Luther Smith, Interim CEO
American Society of Agronomy
Soil Science Society of America
Crop Science Society of America

Cc: Members of the House Subcommittee on Commerce, Justice, Science, and Related Agencies