

Monday, November 14, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Agriculture Committee
Washington, DC 20510

The Honorable David Scott
Chairman
House Agriculture Committee
Washington, DC 20515

The Honorable John Boozman
Ranking Member
Senate Agriculture Committee
Washington, DC 20510

The Honorable Glenn Thompson
Ranking Member
House Agriculture Committee
Washington, DC 20515

Dear Chairwoman Stabenow, Chairman Scott, Ranking Member Boozman, and Ranking Member Thompson,

As a set of organizations dedicated to building a more sustainable and resilient U.S. agricultural system, we write to respectfully request that the Senate and House Agriculture Committees increase funding for agricultural research programs in the upcoming Farm Bill. Adjusted for inflation, annual public agricultural R&D investments in the U.S. have declined by about one-third since peaking in 2002.¹ The need for significant increases in investment for public agricultural research has never been greater.

Farmers and ranchers are on the frontlines of the climate crisis — drought conditions are squeezing producers across the country, from Texas to California, Michigan and beyond; worsening floods across much of the South and Midwest have shrunk yields; and pests and disease are an evolving threat. At the same time, agricultural production accounts for approximately 11 percent of U.S. greenhouse gas emissions.² Public agricultural research is the first step needed to put new tools and innovations in the hands of farmers to address these growing challenges and build resiliency. Through development of regionally-relevant agricultural practices and cutting-edge technologies, publicly funded agricultural research can simultaneously improve food security, revitalize rural communities, protect farmers and ranchers' livelihoods, and empower producers to mitigate climate change.

Unfortunately, the U.S. is underinvesting in public agricultural research, while spending in China, the European Union, and Brazil has continued to rise. Public investment in U.S. agricultural R&D has declined by one-third over the last two decades. Although private agricultural research spending is on the rise, the private sector prioritizes research with

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<https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors/>

² <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

commercializable applications, often leaving environmentally and socially beneficial research unaddressed. The U.S.'s insufficient investment in public research has resulted in tangible consequences — agricultural research and education facilities have billions in deferred maintenance, more than 69% of agricultural research and education facilities at land-grant universities are at the end of their useful life, and critical research to advance agriculture's role in mitigating and adapting to climate has not been conducted — from developing better soil carbon sequestration monitoring tools to exploring nascent practices to reduce methane and nitrous oxide emissions.³

Meaningful investments in Department of Agriculture (USDA) research agencies and programs are long overdue. With increased funding, USDA research initiatives could accelerate the development and dissemination of environmentally and economically beneficial innovations and practices, such as crop cultivars with deeper root systems, crop varieties that are high-yielding and drought-tolerant, methane-inhibiting cattle feed additives, and improved livestock grazing and soil management practices. Based on historical trends, each additional dollar of public agricultural research spending would also generate an average of \$20 in benefits to the U.S. economy.⁴

Congress can ensure that climate-smart innovations make it into agricultural producers' hands by providing USDA programs and agencies with the resources to fund a diverse portfolio of projects. Research programs and agencies that consistently deliver climate breakthroughs but require additional funding to maximize their effectiveness include:

Agricultural Research Service (ARS): As USDA's chief scientific in-house research agency, ARS develops solutions to the highest-priority agricultural problems ARS supports the **Long-Term Agroecosystem Research (LTAR) Network**, which coordinates research across 18 sites on the sustainable intensification of agricultural production, and **Climate Hubs**, which develop and deliver science-based, region-specific information and technologies to agricultural producers and natural resource managers to mitigate climate-related risks. ARS also supports organic research that can advance climate mitigation and adaptation goals.

Agriculture and Food Research Initiative (AFRI): USDA's flagship competitive grant program supports research on a wide range of critical climate mitigation strategies. AFRI is a critical source of funding for a wide array of institutions, including land-grant colleges and universities. Currently, more than half of AFRI proposals that are deemed worthy by expert review panels go unfunded, simply because not enough funding is available.

³ <https://www.aplu.org/our-work/2-fostering-research-innovation/capital-infrastructure-at-colleges-and-schools-of-agriculture/>.

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<https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors/>

Sustainable Agriculture Research and Education (SARE): As a regionally-based and outcome-oriented competitive research program, SARE positions farmers and ranchers as the primary investigators and cooperators in sustainable agriculture research and education projects. SARE has supported cutting edge projects on topics such as conservation tillage, crop rotations projects, grazing management, and soil health.

Organic Agriculture Research and Extension Initiative (OREI) and Organic Transitions Program (ORG): As USDA’s primary competitive research programs dedicated to addressing critical challenges facing organic and transitioning-to-organic producers, OREI and ORG support projects that advance climate mitigation and adaptation goals. Projects have led to meaningful findings related to crop rotation, cover crops, and integrated livestock-crop systems. Currently, less than one-third of proposals are funded.

Foundation for Food and Agriculture Research (FFAR): As an independent non-profit funded by the federal government, FFAR builds research programs in partnership with commodity farm groups, industry, non-profits, universities, and other agricultural stakeholders. FFAR also leverages private sector funding to achieve more than a 1:1 match for every federal dollar with third-party investments.

In addition to increasing the research capacity of these programs, more resources and coordination are needed for data management and integration within and across USDA research areas, disciplines, programs, and agencies. Ultimately, improved data management will help to illuminate larger trends and promote informed decision-making.

Bolstering the U.S.’s investment in agricultural research has never been more important. If the U.S. is to meet its climate goals and build a resilient agricultural sector, farmers and ranchers will need to have access to the best tools, data, and technologies. This will require the U.S. to reaffirm its leadership in funding public agricultural research. We therefore urge you to support farmers and ranchers and protect the environment by reauthorizing and increasing funding for agricultural research programs in the next Farm Bill.

Sincerely,

American Association of Veterinary Medical Colleges

American Phytopathological Society

American Society of Agronomy

Bread for the World Institute

California Climate and Agriculture Network

Carbon180

Carolina Farm Stewardship Association

Cereals & Grains Association

Council for Agricultural Science and Technology

Crop Science Society of America

C.V. Riley Memorial Foundation

Earthjustice

Environmental Defense Fund

Environmental Working Group

Farm Journal Foundation
Friends of the Mississippi River
Illinois Stewardship Alliance
Institute for Agriculture and Trade Policy
Land Stewardship Project
Michael Fields Agricultural Institute
National Association of Plant Breeders
National Center for Appropriate Technology
National Organic Coalition
National Sustainable Agriculture Coalition
National Young Farmers Coalition
Natural Resources Defense Council
New Entry Sustainable Farming Project
North American Craft Maltsters Guild
Ohio Ecological Food and Farm Association

Oregon Climate and Agriculture Network
Organic Farming Research Foundation
Organic Seed Alliance
Pesticide Action Network
Resilience Project
Soil Science Society of America
Spark Climate Solutions
Synergistic Hawaii Agriculture Council
The Breakthrough Institute
The Johns Hopkins Center for a Livable Future
The National Center for Frontier Communities
The Nature Conservancy
Union of Concerned Scientists