

May 11, 2022

The Honorable Tammy Baldwin, Chair  
Agriculture Appropriations Subcommittee  
United States Senate  
Washington, DC 20510

The Honorable John Hoeven, Ranking Member  
Agriculture Appropriations Subcommittee  
United States Senate  
Washington, DC 20510

The Honorable Sanford Bishop, Chair  
Agriculture Appropriations Subcommittee  
United States House of Representatives  
Washington, DC 20515

The Honorable Andy Harris, Acting Ranking Member  
Agriculture Appropriations Subcommittee  
United States House of Representatives  
Washington, DC 20515

Dear Chair Baldwin, Ranking Member Hoeven, Chair Bishop, and Acting Ranking Member Harris,

As a diverse set of stakeholders dedicated to building a stronger, more resilient U.S. agricultural sector, we write today to urge your committees to prioritize funding for federal programs that invest in agricultural research and innovation. In addition to enhancing nutritional value, reducing food costs, and improving rural livelihoods, agricultural research and innovation could substantially reduce the climate impacts of agricultural production, which currently accounts for around 10 percent of US greenhouse gas emissions. Despite recent increases in funding, total public agricultural research funding has only just returned to 2002 levels, and agricultural research accounts for just 2% of federal research and development spending. By increasing funding for United States Department of Agriculture (USDA) research programs in the Fiscal Year 2023 spending bill, Congress can support advancements in environmental and economic sustainability and position America's farmers and ranchers to lead on climate change.

Research is essential to addressing climate change for several reasons. First, public research helps identify ways of enhancing agricultural productivity, which is key to cultivating more food with less land, fewer inputs, and, ultimately, lower greenhouse gas emissions. Since the 1960s, innovation-driven productivity advances have enabled farmers to cut the carbon footprint per pound of milk and chicken by more than 50 percent. Building on this progress, doubling U.S. investments in public agricultural research over the next decade would increase crop production while reducing global greenhouse gas emissions [by at least 109 million tons](#) of carbon dioxide-equivalent per year by 2050, relative to a business-as-usual scenario.

Second, agricultural research can improve climate outcomes by targeting specific topics with especially high mitigation potential. For example, research and development of new technologies would make it possible to cut the carbon footprint of beef [nearly in half](#), and advances in crop breeding could result in crops that sequester up to [twice as much carbon](#) in the soil as today's crops. Third, research is necessary to develop innovations that help farmers adapt to pests and diseases, extreme weather, and other impacts of climate change. Technologies and practices that improve climate resilience will also reduce total emissions by preventing food loss and wasted resources.

Ensuring that American farmers and ranchers have access to the best tools, data, and technologies requires USDA to fund a diverse portfolio of agricultural research projects. Every USDA research program and agency has a part to play, as each has unique capabilities and directives.

The Agricultural Research Service (ARS), for example, is the USDA's chief in-house scientific research agency, so its research centers can count on continuous funding. This allows ARS centers to conduct deep dives into a few specific research topics and make incremental progress over an extended period. The Agriculture and Food Research Initiative (AFRI), USDA's flagship competitive grants program, complements ARS by serving a major source of funding for shorter-term, low-risk, high-reward agricultural research projects at land-grant universities, national laboratories, government agencies, and private organizations. The Agriculture Advanced Research and Development Authority (AgARDA) is also a competitive grants program, but it is specifically designed to support advanced research in the form of multi-year, high-risk, high-reward projects.

USDA's diverse network of research programs and scientists has the potential to dramatically improve U.S. agriculture's climate outcomes – new innovations will boost productivity, increase resilience to climate-enhanced risks, and provide farmers and ranchers with improved climate mitigation tools. Unfortunately, USDA research programs have been chronically underfunded – ARS facilities have around \$1 billion in deferred maintenance; AFRI's expert review panel typically recommends three-times more projects than the program has the resources to fund; and AgARDA, despite being authorized in the 2018 Farm Bill for \$50 million, has received just \$1 million to date. If the U.S. is to meet its climate goals and build a resilient agricultural sector, Congress must commit to higher funding levels for these and other USDA research programs.

Sincerely,

American Association of Veterinary Medical Colleges  
American Institute of Biological Sciences  
American Society for Horticultural Science  
American Society for Microbiology  
American Society of Agronomy  
Bipartisan Policy Center Action  
Carbon180  
Crop Science Society of America  
Ecological Society of America  
Environmental Defense Fund  
Eversole Associates  
Farm Journal Foundation  
International Wheat Genome Sequencing Consortium

Kona Coffee Farmers Association  
National Barley Improvement Committee  
National Sustainable Agriculture Coalition  
North American Craft Maltsters Guild  
North American Millers' Association  
Phytobiomes Alliance  
SoAR Foundation  
Soil Science Society of America  
Synergistic Hawaii Agriculture Council  
The Breakthrough Institute  
The National Grange  
The Nature Conservancy

CC: Senator Jeff Merkley  
Senator Dianne Feinstein  
Senator Jon Tester  
Senator Patrick Leahy  
Senator Brian Schatz  
Senator Martin Heinrich  
Senator Mitch McConnell  
Senator Susan Collins  
Senator Roy Blunt  
Senator Jerry Moran  
Senator Cindy Hyde-Smith  
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Representative Mark Pocan  
Representative Lauren Underwood  
Representative Debbie Wasserman Schultz  
Representative Robert Aderholt  
Representative John Moolenaar  
Representative Dan Newhouse  
Representative David Valadao