April 20, 2021

Dear Chairwoman Baldwin, Chairman Bishop, Ranking Member Merkley, and Ranking Member Fortenberry:

We, the undersigned organizations, are writing to request your support for $10 million in appropriations for the Agricultural Genome to Phenome Initiative. Established in the 2018 Farm Bill, AG2PI focuses on collaborative science engagement and building a community of researchers across both crops and animals that will lay the foundation for expanding our knowledge of genomes and phenomes (traits) of crops and livestock that are vital to the U.S. agriculture industry. Understanding crop and livestock phenomes has been a significant roadblock in converting what we know about genetics into useful improvements in agriculturally important species. Significant research is needed to fully characterize phenomes and how these plant and livestock traits relate to genes and environmental factors.

The Agricultural Genome to Phenome Initiative will develop the tools, resources, and knowledge needed to enable researchers to more efficiently and rapidly develop improved crops and livestock to meet global demand for U.S. agricultural products while overcoming challenges associated with a changing climate and emerging pests and pathogens. This will, in turn, provide farmers with increasingly productive and resilient crops and livestock as well as the tools and information to make better management decisions, thereby increasing farmer profitability, food security, and agricultural sustainability.

It is widely acknowledged that obtaining phenotype information is a major limiting step in converting genomic information into useful improvements in agriculturally important species. Understanding the relationships between genes and trait phenotypes will eventually allow farmers and ranchers to enhance production by identifying optimal combinations of genetics and management practices. The Agricultural Genomes to Phenomes Initiative will enable research that reveals the genetic mechanisms
responsible for phenotypes across a diverse array of agriculturally important species, and help individual farmers make better management decisions and achieve higher stable productivity.

Investments in the Agricultural Genome to Phenome Initiative will support:

- Studying agriculturally significant crops and animals in production environments to achieve sustainable and secure agricultural production.
- Ensuring development of agriculturally significant crops and animals, and agricultural practices that enable responsiveness and resilience to climate change.
- Ensuring that current gaps in existing knowledge of agricultural crop and animal genetics and phenomics are filled.
- Identifying and developing a functional understanding of relevant genes from agriculturally important animals and crops.
- Ensuring future genetic improvement of crops and animals of importance to the agriculture sector of the United States.
- Studying the relevance of diverse germplasm as a source of unique genes that may be of importance in the future.
- Enhancing genetics to reduce the economic impact of pathogens on crops and animals of importance to the agriculture sector of the United States;

We respectfully request that **$10 million** be appropriated for the Agricultural Genome to Phenome program in fiscal year 2022 to support this important work. Please let us know if you have any questions or if we can be of any assistance as the FY 2022 appropriations process moves forward.

Sincerely,

American Association of Mycobacterial Diseases
American Dairy Coalition
American Dairy Goat Association
American Dairy Science Association
American Farm Bureau Federation
American Feed Industry Association
American Sheep Industry Association
American Society of Animal Science
American Society of Plant Biologists
American Veterinary Medical Association
Association of American Veterinary Medical Colleges
Cornell University
Crop Science Society of America
FASS
Florida Cattlemen’s Association
Indiana Beef Cattle Association
Indiana Dairy Producers
Indiana State Poultry Association
Iowa Corn Growers Association
Iowa Soybean Association
Iowa State University
Michigan Agri-Business Association
Michigan Cattlemen’s Association
Michigan Milk Producers Association
Michigan Pork Producers Association
Michigan Sheep Producers Association
Michigan State University, AgBioResearch
Minnesota Pork Producers Association
Mississippi Poultry Association
Mycobacterial Diseases of Animals Multistate Initiative
National Association for the Advancement of Animal Science
National Cattlemen’s Beef Association
National Corn Growers Association
National Dairy Herd Improvement Association
National Grain and Feed Association
National Milk Producers Federation
National Pork Producers Council
National Turkey Federation
Nebraska Cattlemen
North Dakota Pork Council
Ohio Pork Council
Ohio State University – Department of Animal Science
Penn State University
Purdue University
Texas A&M AgriLife
University of Arizona - Division of Agriculture, Life & Veterinary Sciences, and Cooperative Extension
University of Minnesota, CFANS
University of Nebraska – Lincoln, Institute of Agriculture and Natural Resources
University of Wisconsin-Madison
US Dairy Forage Research Center Stakeholder Committee