National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

FACT SHEET

AGRICULTURAL GENOME TO PHENOME INITIATIVE (AG2PI)

The National Institute of Food and Agriculture's Agricultural Genome to Phenome Initiative (AG2PI), Assistance Listing 10.332, focuses on bridging the knowledge gap between individual plant or animal physiological, genetic, and molecular insights in controlled settings and performance in production environments heavily influenced by management practices, climate, disease, and nutrition.

APPLICANT DEADLINE AND FUNDING

- FY 2023: Friday, June 1, 2023 (5 p.m. Eastern Time)
- Approximately $2.3 million are available for AG2PI funding in FY 2023

APPLICANT ELIGIBILITY

- Colleges or universities (including junior colleges offering associate degrees or higher);
- State agricultural experiment stations;
- National laboratories;
- Federal agencies;
- Private organizations or corporations;
- Other research institutions or foundations;
- Individuals who are U.S. citizens, nationals or permanent residents;
- A consortium of two or more eligible entities.

PROGRAM AREA PRIORITIES

The proposals submitted to AG2PI must support more than one of the following goals. See the Request for Applications for further information.

1. Study agriculturally significant crops and animals in production environments to achieve sustainable and secure agricultural production;

2. Ensure that current gaps in existing knowledge of agricultural crop and animal genetics and phenomics are filled;
3. Identify and develop a functional understanding of relevant genes from animals and agronomically relevant genes from crops that are of importance to the agriculture sector of the United States;
4. Study the relevance of diverse germplasm as a source of unique genes that may be of importance in the future;
5. Provide a foundation for collaborative science across disciplines that benefits both agricultural crop and animal production;
6. Understand how variable weather, environments and production systems impact the growth and productivity of specific varieties of crops and species of animals in order to provide greater accuracy in predicting crop and animal performance under variable conditions;
7. Leverage plant and animal genomic information with phenotypic and environmental data through an interdisciplinary framework, leading to a novel understanding of plant and animal processes that affect growth, productivity and the ability to predict performance, which will result in the deployment of superior varieties and breeds combined with improved crop and animal management recommendations for farmers and ranchers;
8. Combine fields such as genetics, genomics, plant physiology, agronomy, climatology and crop modeling with computation and informatics, statistics, and engineering;
9. Combine fields such as genetics, genomics, animal physiology, meat science, animal nutrition and veterinary science with computation and informatics, statistics, and engineering.
10. Develop improved analytical tools, monitoring capabilities and data handling.

FUNDED PROJECTS

- See the Current Research Information System (CRIS) for information about AG2PI's funded projects.

APPLYING FOR FUNDING

- Only electronic applications submitted via Grants.gov will be accepted. See the NIFA Grants Application Guide for instructions on how to apply.

PROGRAM CONTACTS

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