



United States
Department of
Agriculture

National Institute
of Food
and Agriculture

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The logo for the National Institute of Food and Agriculture (NIFA), featuring the letters "NIFA" in a large, white, serif font against a dark background that includes a stylized silhouette of a plow or similar agricultural tool.

NIFA

REQUEST FOR APPLICATIONS

Agricultural Genome to Phenome Initiative

FUNDING YEAR: Fiscal Year 2022
APPLICATION DEADLINE: July 21, 2022
ANTICIPATED FUNDING: \$1,920,000
AVERAGE AWARD RANGE: \$1,920,000
FUNDING OPPORTUNITY NUMBER: USDA-NIFA-OP-009161
ASSISTANCE LISTING NUMBER: 10.332
LETTER OF INTENT DEADLINE: Not Required

INITIAL ANNOUNCEMENT
National Institute of Food and Agriculture
United States Department of Agriculture

Assistance Listing: The Agricultural Genome to Phenome Initiative (AG2PI) is listed in the Assistance Listings under number 10.332.

Table 1: Key Dates and Deadlines

Task Description	Deadline
Application:	5:00 P.M. Eastern, July 21, 2022 [Ref to Part I § C of this RFA]
Letter of Intent:	Not Required
Applicants Comments:	Within six months from the issuance of this notice (<i>NIFA may not consider comments received after the sixth month</i>)

Advancing Diversity, Equity, Inclusion, and Accessibility. NIFA recognizes research, education, and extension efforts will have the greatest impacts when equity is grounded in the programs. NIFA is committed to enhancing diversity, equity, inclusion, and accessibility of programs and encourages individuals, institutions, and organizations from underserved communities to apply to funding opportunities as lead, co-lead, or subaward recipient(s), and to engage as leaders in the peer panel review process to support the development of strong networks and collaborations. NIFA encourages applications that engage diverse communities and have broad impacts through research, education, extension, and integrated activities to address current and future challenges.

Stakeholder Input. The National Institute of Food and Agriculture (NIFA) seeks comments on all request for applications (RFAs) so it can deliver programs efficiently, effectively, with integrity, and with a focus on customer service. NIFA considers comments, to the extent possible when developing RFAs and use comments to help meet the requirements of [Section 103\(c\)\(2\) of the Agricultural Research, Extension, and Education Reform Act of 1998 \(7 U.S.C. 7613\(c\)\(2\)\)](#). Applicants may submit written comments to Policy@usda.gov (email is for comments only). Please use the following subject line: Response to the Agricultural Genome to Phenome Initiative RFA.

Centers of Excellence. Applicants are encouraged to visit the NIFA’s [Centers of Excellence \(COE\)](#) for information on COE designation process, including COE criteria, and a list of programs offering COE opportunities. A recording of COE outreach and COE implementation webinars are also available.

EXECUTIVE SUMMARY

The 2018 Farm Bill directed the Secretary of Agriculture through the National Institute of Food and Agriculture to establish a new competitive grant program to support research concerning genomes and phenomes of crops and animals of importance to the agriculture sector of the United States. The Farm Bill authorized annual discretionary funding for fiscal years 2019 through 2023. The U.S. Congress appropriated \$2,000,000 in fiscal year 2022 for this effort.

This notice identifies the objectives for Agricultural Genome to Phenome Initiative projects, deadlines, funding information, eligibility criteria for projects and applicants, and application forms and associated instructions.

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PART I. FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority

The Agriculture Genome to Phenome Initiative is authorized under [7 U.S.C. 5924](#).

Purpose and Priorities

The National Institute of Food and Agriculture's Agricultural Genome to Phenome Initiative (AG2PI) Assistance Listing 10.332, focuses on collaborative science engagement that brings together a community of researchers across both crops and animals to lay the foundation for expanding knowledge concerning genomes and phenomes of importance to the agriculture sector of the United States. Applications that propose a collaboration among U.S. crop and animal researchers are encouraged. In FY 2022, Congress recognized the value of leading public and land-grant universities with unique high-throughput phenotyping and greenhouse facilities and expertise for plant science innovation, root and rhizome innovation, and food for health. Congress provided funding for the Genome to Phenome program and encouraged NIFA to support the development of tools and datasets that can be used across multiple crop species to develop advanced genome engineering tools for integrated optimization of crop yield and animal feed for improved animal reproduction and nutrition and to mitigate environmental impacts from crop and animal production. Congress directed NIFA to use a competitive process to issue awards and urged additional focus on root stocks that increase carbon capture and can support grain crop covers. The purposes of AG2PI are to:

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 agronomically relevant genes from crops and animals that are of importance to the agriculture sector of the United States;
4. Ensure future genetic improvement of crops and animals of importance to the agriculture sector of the United States;
5. Study the relevance of diverse germplasm as a source of unique genes that may be of importance in the future;
6. Enhance the available pool of genetic resources to reduce the economic impact of pathogens on crops and animals of importance to the agriculture sector of the United States; and
7. Disseminate findings to relevant audiences.

The AG2PI is aligned with the following USDA Strategic Goals:

1. Strategic Goal 1: Combat Climate Change to Support America's Working Lands, Natural Resources and Communities.
2. Strategic Goal 2: Ensure America's Agricultural System is Equitable, Resilient, and Prosperous.
3. Strategic Goal 3: Foster an Equitable and Competitive Marketplace for All Agricultural Producers.

USDA Strategic Plan found at (<https://www.usda.gov/sites/default/files/documents/usda-fy-2022-2026-strategic-plan.pdf>)

Global Engagement. NIFA supports global engagement that advances U.S. agricultural goals. NIFA recognizes that collaboration with international partners may be necessary to attain the agency's goals for U.S. agriculture, promote global competence of our nation's future agricultural workforce, and promote safe and nutritious food security in a growing world. Therefore, although application to this RFA is limited to eligible U.S. institutions, applicants may collaborate with international partners, to include subcontracts to international partners or other institutions. Applications must clearly demonstrate benefits to the U.S.

For a program informational webinar please visit the [NIFA calendar](#) for dates, event registration, and link.

Table 2: Program Key Information

	Title	Description
Program Code:	AG2PI	
Program Code Name:	Agricultural Genome to Phenome Initiative	
CFDA Number	10.332	
Project Type:	Research Only	
Grant Type:	Collaborative AG2PI	
Application Deadline	July 21, 2022	
Grant Duration:	36 Months	
Anticipated # of Awards:	1	
Maximum Award Amount:	\$1,920,000	

B. Program Area Description

The application must propose a collaboration among U.S. crop and animal researchers. Applications must begin their title as “NIFA AG2PI Collaborative: [full title] ... followed by the specific name of the project”.

Applications must aim to use a competitive process (seed grants) in coordination and approved by NIFA to: (1) develop tools and datasets that can be used across multiple crop species to advance genome engineering for integrated optimization of crop yield and animal feed for improved animal reproduction and nutrition; (2) mitigate environmental impacts from crop and animal production and; (3) encourage development of root stocks that increase carbon capture and can support grain crop covers. Projects must support the following statutory goals:

1. expand knowledge concerning genomes and phenomes of crops and animals of importance to the agriculture sector of the United States;
2. 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;
3. support research that leverages 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 species to producers and improved crop and animal management recommendations for farmers and ranchers;

4. catalyze and coordinate research that links genomics and predictive phenomics at different sites across the United States to achieve advances in crops and animals that generate societal benefits;
5. combine fields such as genetics, genomics, plant physiology, agronomy, climatology, and crop modeling with computation and informatics, statistics, and engineering;
6. combine fields such as genetics, genomics, animal physiology, meat science, animal nutrition, and veterinary science with computation and informatics, statistics, and engineering;
7. focus on crops and animals that will yield scientifically important results that will enhance the usefulness of multiple crop and animal species;
8. build on genomic research, such as the Plant Genome Research Project and the National Animal Genome Research Program, to understand gene function in production environments that is expected to have considerable returns for crops and animals of importance to the agriculture of the United States;
9. develop improved data analytics to enhance understanding of the biological function of genes;
10. allow resources developed under this section, including data, software, germplasm, and other biological materials, to be openly accessible to all persons, subject to any confidentiality requirements imposed by law; and
11. encourage international partnerships with each partner country responsible for financing its own research.

Other Program Information:

1. **Applications** must include a budgeted plan for data management that includes making data publicly available and /or compatible with other open data sources.
2. Applications must include, as an appendix, a budgeted project management plan and timeline to ensure efficient functioning of the plant and animal collaborative team of researchers.
3. Applications should use the existing community white papers on genome to phenome in crops and animals or develop new white papers to identify short, medium, and long-term priorities to be addressed with the available funding.
4. Applications must include, as an appendix, a budgeted plan and timeline for an advisory group of principal stakeholders and scientists relevant to the proposed project.
5. **Renewal Applications** must include a description of how the scope of existing programs will be expanded given additional funds.
6. Applications must include a detailed description of how subcontracts under this award will be managed.
7. Applicants are strongly encouraged to strengthen existing partnerships and/or form new partnerships with Minority Serving Institutions (MSI).

Applications that demonstrate coordination and collaboration with international partners, especially other genome to phenome projects worldwide will be viewed favorably. However, applications must be submitted by eligible U.S. institutions.

PART II. AWARD INFORMATION

A. Available Funding

The amount available for the Agriculture Genome to Phenome Initiative (AG2PI) in FY 2022 is approximately \$1,920,000. For FY 2022, this program will accept applications for standard research projects up to \$1,920,000 (total, including indirect costs, not per year). Project periods for this program are limited to a maximum duration of three years. USDA is not committed to fund any application or to make a specific number of awards.

The [Automated Standard Application for Payments](#), operated by the Department of Treasury, Bureau of Fiscal Service, is the designated payment system for awards resulting from this RFA.

B. Application Restrictions

NIFA will evaluate applications using the criteria described in [Part V](#) of this RFA. Applications for FY2022 is limited to the following application types:

1. **New application:** New applications will be evaluated using the criteria described in [Part V](#) of this RFA and are subject to the due dates herein (see [Appendix III](#) for definition).
2. **Renewal application.** Renewal applications must contain the same information as required for new applications and must contain a *progress report*. The progress report must include the implementation of the data management plan (DMP) of the previously funded project. Renewal applications are subject to the same criteria and due dates herein. Applicants submitting a renewal application must enter the NIFA-assigned proposal number of the previously approved application in the *Federal Field (Field 4)* on the application form (see [Appendix III](#) for definition).

C. Project and Grant Types

The type of projects or grants that are eligible for funding is limited to Standard Research applications.

D. Ethical Conduct of Funded Projects

In accordance with sections [2, 3, and 8 of 2 CFR Part 422](#), institutions that conduct USDA-funded extramural research must foster an atmosphere conducive to research integrity, bear primary responsibility for prevention and detection of research misconduct, and maintain and effectively communicate and train their staff regarding policies and procedures. In the event an application to NIFA results in an award, the Authorized Representative (AR) assures, through acceptance of the award that the institution will comply with the above requirements. Award recipients must, upon request, make available to NIFA the policies, procedures, and documentation to support the conduct of the training. See [Responsible and Ethical Conduct of Research](#) for further information.

PART III. ELIGIBILITY INFORMATION

A. Eligibility Requirements

The Secretary may make grants under this subsection to:

1. State agricultural experiment stations;
2. colleges and universities;
3. university research foundations;
4. other research institutions and organizations;
5. Federal agencies;
6. national laboratories;
7. private organizations, foundations, or corporations;
8. individuals; or
9. any group consisting of two or more of the entities described in (1) through (8).

A consortium of eligible entities is encouraged to apply under this RFA. Applicants for the AG2PI must meet all the requirements discussed in this RFA. Failure to meet the eligibility criteria by the application deadline may result in exclusion from consideration or, preclude NIFA from making an award. For those new to Federal financial assistance, NIFA's [Grants Overview](#) provides highly recommended information about grants and other resources to help understand the Federal awards process.

Duplicate or Submissions – duplicate submissions are not allowed. NIFA will disqualify both applications if an applicant submits duplicate submissions. For those new to Federal financial assistance, NIFA's [Grants Overview](#) provides highly recommended information about grants and other resources to help understand the Federal awards process.

B. Cost Sharing or Matching

With respect to a grant or cooperative agreement under this section that provides a particular benefit to a specific agricultural commodity, the recipient of funds shall provide non-Federal matching funds (including funds from an agricultural commodity promotion, research, and information program) equal to not less than the amount provided under the grant or cooperative agreement. Non-Federal matching funds may include in-kind support, in keeping with the requirements detailed in Part IV, B. of this RFA.

Matching Waiver: The matching funds requirement may be waived if NIFA determines that

- A. the results of the project are of a particular benefit to a specific agricultural commodity, but those results are likely to be applicable to agricultural commodities generally; or
- B. the project:
 - a. Involves a minor commodity; and
 - b. deals with scientifically important research; and
 - c. the recipient is unable to satisfy the matching funds requirement.

C. Centers of Excellence

Pursuant to [Section 7214 of the Agricultural Act of 2014 \(Pub. L. 113-79\)](#), NIFA will recognize and prioritize COE applicants that carry out research, extension, and education activities that relate to the food and agricultural sciences. A COE is composed of one or more of the following entities that provide financial or in-kind support to the COE.

1. State agricultural experiment stations.
2. Colleges and universities.
3. University research foundations.
4. Other research institutions and organizations.
5. Federal agencies.
6. National laboratories.
7. Private organizations, foundations, or corporations.
8. Individuals; or
9. Any group consisting of two or more of the entities described in (1) through (8).

PART IV. APPLICATION AND SUBMISSION

A. Method of Application

Applicants must apply to this RFA electronically; no other method or response is accepted. The electronic application for this RFA and additional resources are available on [Grants.gov](https://www.grants.gov) and [Grants 101](#). **Table 3** provides instructions on how to obtain an electronic application. **Part III** of the NIFA Grants [Application Guide](#) contains detailed information regarding the [Grants.gov](https://www.grants.gov) registration process. The NIFA Grants Application Guide is contained in the specific funding opportunity package or a sample of the guide can be found [here](#). When applying for a NIFA award, it is important to reference the version of the guide that is included in the specific funding opportunity application package.

Table 3. Steps to Obtain Application Materials

Steps	Action
Step One: Register	<i>New Users</i> to Grants.gov must register early with Grants.gov prior to submitting an application (Register Here).
Step Two: Download Adobe	Download and Install Adobe Reader (see Adobe Software Compatibility for basic system requirements).
Step Three: Find Application	Using this funding opportunity number USDA-NIFA-OP-009161 , search for application here: Opportunity Package .
Step Four: Assess Readiness	Contact an AR prior to starting an application to assess the organization’s readiness to submit an electronic application.

Table 4: Help and Resources

Grants.gov Support	NIFA Support
Grants.gov Online Support Telephone support: 800-518-4726 Toll-Free or 606-545-5035 Email support: support@grants.gov Self-service customer-based support: Grants.gov iPortalgrantapplicationquestions@usda.gov Key Information: Customer service business Hours 24/7, except federal holidays .	Email: grantapplicationquestions@usda.gov Key Information: Business hours: Monday thru Friday, 7a.m. – 5p.m. ET, except federal holidays

B. Content and Form of the Application

The application guide is part of the corresponding application package for this RFA. The RFA overrides the application guide if there is a discrepancy between the two documents. NIFA will accept subsequent submissions to an application until the application deadline. However, applicants that do not meet the application requirements, to include partial applications, risk

being excluded from NIFA’s review. NIFA will assign a proposal number to all applications that meet the requirements of this RFA. Applicants must refer to the proposal number when corresponding with NIFA. **Table 5** outlines other key instructions for applicants.

Table 5: Key Application Instructions

Instruction	References (All references are to the Application Guide)
Attachments must be in a portable document format (PDF) format.	Part IV
Check the manifest of submitted files to verify attachments are in the correct format.	Part IV
Conduct an administrative review of the application before submission.	Part IV
Follow the submission instructions.	Part V
Provide an accurate email address, where designated, on the SF-424 R&R.	Part V
Contact the Grants.gov helpdesk for technical support and keep a record of the correspondence.	N/A
Contact NIFA if applicant does not receive correspondence from NIFA regarding an application within 30 days of the application deadline.	N/A

SF 424 R&R Cover Sheet. See **Part V** of the [Application Guide](#) for the required certifications and assurances.

SF 424 R&R Project/Performance Site Location(s). See **Part V** of the **Application Guide**.

R&R Other Project Information Form. See **Part V** of the **Application Guide**.

1. Field 7. Project Summary (PS)/Abstract. The PS must show how the project goals align with the project goals of the AG2PI. See **Part V** of the Application Guide for instructions and suggested templates.
2. Field 8. Project Narrative (PN). The PN must not exceed 18 *1.5 spaced* pages of written text including figures and tables (the font size for tables should be no smaller than 11 points, Times New Roman). The page limits outlined here ensure fair and equitable competition. Appendices to the PN are allowed if they are directly germane to the proposed project. Do not add appendices to circumvent the page limit. The PN must include all the following:
 - a. Introduction;
 - b. Rationale and significance;
 - c. Objectives;
 - d. Approach;

- e. Global engagement;
 - f. Project timeline;
 - g. Cooperation and institutional involvement;
 - h. Data management plan (DMP);
 - i. Summary of previous work;
 - j. Centers of Excellence Justification; Applicants requesting consideration of COE status must include their justification at the end of their Project Narratives and within the page limits provided for the project narratives; and
 - k. Response to previous review: The response to previous review must not exceed 3 *1.5 spaced* pages. This does not count towards the page limit for the PN.
3. Field 12, Add Other Attachments. See **Part V** of the Application Guide.

R&R Senior/Key Person Profile (Expanded). See **Part V** of the [Application Guide](#) for profile requirements, details about the biographical sketch, and suggested support templates.

R&R Personal Data. This information is voluntary and is not a precondition of award (see **Part V** of the [Application Guide](#)).

R&R Budget. See **Part V** of the [Application Guide](#).

1. Match – If an applicant concludes that the matching requirements described under [Part III § B](#) of this RFA is not applicable to them; the applicant must include an explanation of their conclusion in the *budget justification*. NIFA will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements. Grants that require matching funds as specified under [Part III § B](#) of this RFA must list in their *budget justification* the matching sources, the identification of the entity(ies) providing the match, and the total pledged amount. A written verification of commitments of matching support (a pledge agreement) is not required. However, applicants are subject to the documentation, valuing and reporting requirements, as specified in [2 CFR Part 200, “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards \(the Uniform Guidance\),”](#) and [7 CFR 3430, “Competitive and Noncompetitive Non-Formula Federal Assistance Programs – General Award Administrative Provisions.”](#)
2. Indirect costs (IDC) – See [Part IV § C](#) of this RFA for funding restrictions regarding indirect cost, and **Part V** of the [Application Guide](#) for additional information.

Data Management Plan. A DMP is required for this program. Applicants should clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate the data generated by the project. The DMP will be considered during the merit review process (see [Part V § B](#) of this RFA, [NIFA’s Data Management Plan](#)). If you need help in preparing a data management plan or have questions about what constitutes a data management plan for this role (including questions about data privacy, etc.), please contact the NIFA program contacts listed at the end of this RFA.

The DMP must include: making data publicly available and /or compatible with other open data sources. Specifically, applications must provide a description and budgeted plan for the release of research results (e.g., data, germplasm, cultivars, genetic resources) that is compliant with the

Research Terms and Conditions that govern NIFA-funded projects in the areas of plant and animal breeding, genetics and genomics.

The terms and conditions can be found at <https://nifa.usda.gov/sites/default/files/resource/NIFA-19-012-NIFA-Research-Agency-Specific.pdf>. The following sections are particularly relevant:

Genetic Resources from Outside of the U.S. (*page 6*); and Patents and Inventions including Plant Variety Protection and Release of Animal or Plant Genome Sequence Data, Distribution of Animal or Plant Genomic Resources, and the Release or Distribution of Plant Germplasm (*pages 15-16*).

Supplemental Information Form. See **Part V** of the **Application Guide**.

1. Field 2. Program to which the applicant is applying. Enter the program name Agricultural Genome to Phenome Initiative and the program code (AG2PI). Accurate entry is critical.
2. Field 8. Conflict of Interest List. See **Part V** of the Application Guide.

Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants. This is required for corporate applicants. See **Part VI § 2** of the **Application Guide** for a description of the term, “corporation.”

C. Funding Restrictions

Indirect Cost (IDC) not to exceed 30 percent of Total Federal Funds Awarded (TFFA) of the recipient. Section 1462(a) and (c) of the [National Agricultural Research, Extension, and Teaching Policy Act of 1977 \(NARETPA\)](#) limits IDC for the overall award to 30 percent of Total Federal Funds Awarded (TFFA) under a research, education, or extension grant. The maximum IDC rate allowed under the award is determined by calculating the amount of IDC using:

1. the sum of an institution’s negotiated indirect cost rate and the indirect cost rate charged by sub-awardees, if any; or
2. 30 percent of TFFA.

The maximum allowable IDC rate under the award, including the IDC charged by the sub-awardee(s), if any, is the lesser of the two rates.

If the result of number one is the lesser of the two rates, the grant recipient is allowed to charge the negotiated IDC rate on the prime award and the sub-award(s), if any. Any sub-awards would be subject to the sub-awardee’s negotiated IDC rate. The sub-awardee may charge its negotiated IDC rate on its portion of the award, provided the sum of the IDC rate charged under the award by the prime awardee and the sub-awardee(s) does not exceed 30 percent of the TFFA.

If the result of number two is the lesser of the two rates, then the maximum IDC rate allowed for the overall award, including any sub-award(s), is limited to 30 percent of the TFFA. That is, the IDC of the prime awardee plus the sum of the IDC charged by the sub-awardee(s), if any, may not exceed 30 percent of the TFFA.

In the event of an award, the prime awardee is responsible for ensuring the maximum indirect cost allowed for the award is not exceeded when combining IDC for the Federal portion (i.e.,

prime and sub-awardee(s)) and any applicable cost-sharing (see [7 CFR 3430.52\(b\)](#)). Amounts exceeding the maximum allowable IDC are considered unallowable. See sections [408](#) and [410](#) of [2 CFR 200](#).

Successful applicants must not use grant funds awarded under the authority of this RFA to renovate or refurbish research, education, or extension space; purchase or install fixed equipment in such space; or to plan, repair, rehabilitate, acquire, or construct buildings or facilities.

PART V. APPLICATION REVIEW REQUIREMENTS

A. NIFA's Evaluation Process

NIFA evaluates each application in a two-part process. First, we screen each application to ensure that it meets the administrative requirements set forth in this RFA. All administrative requirements must be met in order for the application to proceed to the next level of review. Second, a scientific peer-review process will be used to technically evaluate applications that have met the administrative requirements using a review panel (see [NIFA Peer Review Process](#)).

Scientific Peer Review Process:

NIFA selects reviewers for the review panel based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors:

1. the level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities.
2. the need to include experts from various areas of specialization within relevant scientific, education, or extension fields.
3. the need to include other experts (e.g., producers, range or forest managers/operators, researchers, public health practitioners, educators, consumers, and commercial reviews) who can assess relevance of the applications to targeted audiences and to program needs.
4. the need to include experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, and private profit and non-profit organizations) and geographic locations.
5. the need to maintain a balanced composition with regard to minority and female representation and an equitable age distribution; and
6. the need to include reviewers who can judge the effective usefulness of each application to producers and the general public.

After each peer review panel has completed its deliberations, the responsible program staff of NIFA will recommend that your project is either approved for support from currently available funds or declined due to insufficient funds or unfavorable review.

NIFA reserves the right to negotiate with the PD/PI and/or the submitting organization or institution regarding project revisions (e.g., reductions in the scope of work, funding level, period, or method of support) prior to recommending any project for funding.

After the review process has been completed, NIFA sends copies of reviews, *not* including the identity of reviewers, and a summary (if applicable) of the review panel comments to the PD.

Conflicts of interest. NIFA takes extreme care to prevent any actual or perceived conflicts of interest that may influence the review or evaluation (see [NIFA Peer Review Process for Competitive Grant Applications](#)).

B. Evaluation Criteria

The following evaluation criteria will be used for the review of AG2PI applications:

1. **Scientific Merit of the Application for Research:**
 - a. Novelty, innovation, uniqueness, and originality;
 - b. Where model systems are used, ability to transfer knowledge gained from these systems to organisms of importance to U.S. agriculture;
 - c. Conceptual adequacy of the research;
 - d. Clarity and delineation of objectives;
 - e. Adequacy of the description of the undertaking;
 - f. Suitability and feasibility of methodology and data management plan;
 - g. Demonstration of feasibility through preliminary data; and
 - h. Probability of success of the project given the level of scientific innovation, and risk-reward balance.
2. **Qualifications of Project Personnel, Adequacy of Facilities, and Project Management:**
 - a. Qualifications of applicant (team) to conduct the proposed project, including performance record and potential for future accomplishments;
 - b. Demonstrated awareness of previous and alternative approaches to the problem identified in the application;
 - c. Institutional experience and competence in subject area;
 - d. Adequacy of available or obtainable support personnel, facilities, and instrumentation; and
 - e. Planning and administration of the proposed project, including: time allocated for systematic attainment of objectives; and planned administration of the proposed project and its maintenance, partnerships, strength of the collaborative efforts, and the planned dissemination of information for multi-institutional projects over the duration of the project.
3. **Project Relevance:**
 - a. Documentation that the research supports the Purposes of AG2PI identified in Part I.B and is directed toward specific Program Priorities identified in Part I.C and is designed to accelerate progress toward the productivity and economic, environmental, and social sustainability of U.S. agriculture with respect to natural resources and the environment, human health and well-being, and rural communities.
 - b. When international collaboration or activities are involved, the project leverages expertise, resources, and experience from beyond the United States to achieve greater impact or brings foreign or international research efforts to address issues relevant to U.S. agriculture.

C. Centers of Excellence

In addition to evaluating applicants using the criterion listed in [Part V § B](#) of this RFA, NIFA will use the COE standards described in this RFA to evaluate applicants that rank highly meritorious and requested to be considered as a COE. In instances where applicants are found to be equally meritorious with the application of a non-COE applicant, NIFA will prioritize the COE applicant meeting the COE criteria. NIFA will effectively use the COE prioritization as a “tie breaker.” Applicants that rank highly meritorious but who did not request consideration as a COE or who are not deemed to have met the COE standards may still receive funding.

Applicants that meet the COE requirements will have the COE designation in their notice of award. Entities recognized as COE will maintain that distinction for the duration of their period of performance or as identified in the terms and conditions of that award.

D. Organizational Management Information

Applicants must submit specific management information relating to an applicant prior to an award and update the information as needed. Applicants may only have to update their information if they had previously provided the information under this or another NIFA program. NIFA provides the requisite forms during the pre-award process. Although an applicant may be eligible for award under this program, there are factors that may exclude an applicant from receiving federal financial and nonfinancial assistance and benefits under this program (e.g., debarment or suspension of an individual, or a determination that an applicant is not responsible).

E. Application Disposition

Applicants may withdraw at any time before NIFA makes a final funding decision. NIFA will retain all applications, including withdrawn applications and unfunded applications.

PART VI. AWARD ADMINISTRATION

A. General

Within the limit of funds authorized, the NIFA awarding official will make grants to responsible and eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the NIFA awarding official as the effective date of the grant must be no later than September 30 of the federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. The project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by NIFA under this RFA may be used only for the purpose for which they are granted in accordance with the approved application and budget, regulations, terms and conditions of the award, applicable federal cost principles, USDA assistance regulations, and [NIFA General Awards Administration Provisions, 7 CFR Part 3430, subparts A through E](#).

Award Notice. The award document will provide pertinent instructions and information as described in [2 CFR 200.211](#) (see [NIFA's Terms and Conditions](#)).

B. Administrative and National Policy Requirements

Several federal statutes and regulations apply to grant applications and the projects outlined in this RFA (some are listed here: [Federal Regulations](#)). Unless specifically noted by statute or award-specific requirements, [NIFA Policy Guide](#) applies to all NIFA awards.

PART VII. OTHER INFORMATION

A. Use of Funds and Changes in Budget

Delegation of fiscal responsibility. Unless the terms and conditions of the award state otherwise, awardees may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

Changes in Budget or Project Plans. In accordance with [2 CFR 200.308](#), awardees must request prior approval from NIFA for the following program or budget-related reasons (the awardee is subject to the terms and conditions identified in the award):

1. Change in the scope or the objective of the project or program without prior written approval (even if there is no associated budget revision requiring).
2. Change in a key person specified in the application or the federal award.
3. Disengagement from the project for more than three months, or a 25 percent reduction in time devoted to the project.
4. Inclusion of costs that require prior approval in accordance with [2 CFR 200 Subpart E \(Cost Principles\)](#), or [45 CFR Part 75 Appendix IX, \(Principles for Determining Costs Applicable to Research and Development under Awards and Contracts with Hospitals\)](#), or [48 CFR](#), unless waived by the federal awarding agency, [48 CFR Part 31, Contract Cost Principles and Procedures](#);
5. Transfer of funds budgeted for participant support costs to other categories of expense ([2 CFR 200.456 Participant support costs](#));
6. Sub-awarding, transferring or contracting out of any work under a federal award, including fixed amount sub-awards (see [2 CFR 200.333, Fixed Amount Sub-awards](#)), unless described in the application and funded in the approved federal awards. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.
7. Changes in the approved cost-sharing or matching provided by the non-federal entity; and
8. The need for additional federal funds to complete the project.

B. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of NIFA transaction records, which are available to the public. Information that the Secretary of Agriculture determines to be confidential, privileged, or proprietary in nature will be held in confidence to the extent permitted by law. Therefore, applicants should clearly mark any information within the application they wish to have considered as confidential, privileged, or proprietary. NIFA will retain a copy of an application that does not result in an award for three years. Such an application will be released only with the consent of the applicant or to the extent required by law. An applicant may withdraw at any time prior to the final action thereon.

C. Regulatory Information

This program is not subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with state and local officials. Under the provisions of the Paperwork Reduction Act of 1995 ([44 U.S.C. Chapter 35](#)), the collection of information requirements contained in this notice have been approved under [OMB Document No. 0524-0039](#).

APPENDIX I: AGENCY CONTACT

Program Contacts

Christian Tobias

Christian.Tobias@usda.gov

610-312-7619

Frank Siewert

Frank.Siewerdt@usda.gov

202-123-3456

For administrative questions related to;

1. Grants.gov, see Part IV of this RFA
2. Other RFA or application questions, please email grantapplicationquestions@usda.gov
3. Awards under this RFA, please email awards@usda.gov

U.S. Postal Mailing Address:

National Institute of Food and Agriculture

U.S. Department of Agriculture

P.O. Box 419205, MS 10000

Kansas City, MO 64141-6205

Courier/Package Delivery Address:

National Institute of Food and Agriculture

United States Department of Agriculture

2312 East Bannister Road, MS 10000

Kansas City, MO 64141-3061

APPENDIX II: GLOSSARY OF TERMS

Glossary of Terms

Agricultural Genome to Phenome Initiative – AG2PI

Agriculture and Food Research Initiative – AFRI

Authorized Representative – AR

Centers of Excellence – COE

Data Management Plan – DMP

Minority Serving Institutions – MSI

National Agricultural Research, Extension, and Teaching Policy Act of 1977 – NARETPA

National Institute of Food and Agriculture – NIFA

Portable document format – PDF

Project Director – PD

Project Narrative – PN

Project Summary – PS

Request for Application – RFA

Research, Education, and Economics – REE

Total Federal Funds Awarded – TFFA

United States Department of Agriculture – USDA

APPENDIX III: DEFINITIONS

Refer to [7 CFR 3430 Competitive and Noncompetitive Non-formula Federal Assistance Programs – General Award Administrative Provisions](#) for additional definitions.

Definitions

Continuation Award:

An award instrument by which NIFA agrees to support a specified level of effort for a predetermined period of time with a statement of intention to provide additional support at a future date, provided that performance has been satisfactory, appropriations are available for this purpose, and continued support would be in the best interest of the federal government and the public.

Matching:

The process through which a grant recipient match awarded USDA funds with cash and in-kind contributions on a dollar-for-dollar basis. The matching funds must derive from non-Federal sources.

New Application:

An application not previously submitted to a program.

Renewal Application:

A project application that seeks additional funding for a project beyond the period that was approved in an original or amended award.

Resubmitted Application:

A project application that was previously submitted to a program, but the application was not funded.

Resubmitted Renewal Application:

A project application that requests additional funding for a project beyond the period that was approved in the original award. This is an application that had previously been submitted for renewal to but not funded.