

Special Research Grants Program Potato Research

Modification: Page 18 to correct the Indirect Cost Language

Fiscal Year (FY) 2019 Request for Applications (RFA)

APPLICATION DEADLINE: May 21, 2019

ELIGIBILITY: See Part III, A of RFA



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE; U.S. DEPARTMENT OF AGRICULTURE

SPECIAL RESEARCH GRANTS: POTATO RESEARCH

INITIAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Assistance Listings under the Catalog of Federal Domestic Assistance number 10.200.

DATES: Applications must be received by **5 p.m. Eastern Time on May 21, 2019**. Applications received after this deadline will normally not be considered for funding (see Part IV, C of this RFA). Comments regarding this request for applications (RFA) are requested within six months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

STAKEHOLDER INPUT: The National Institute of Food and Agriculture (NIFA) seeks your comments about this RFA. We will consider your comments when we develop the next RFA for the program, and if applicable, we'll use them to 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)). Submit your written stakeholder comments by the deadline set forth in the DATES portion of this notice via email to Policy@nifa.usda.gov. (This email address is only for receiving comments regarding this RFA and *not* for requesting information or forms.) In your comments, please state that you are responding to the Special Research Grants Program Potato Research RFA.

EXECUTIVE SUMMARY: NIFA requests applications for the Special Research Grants Program Potato Research (Potato Research) fiscal year (FY) 2019 to support breeding research that leads to the development and commercial use of superior performing potato varieties that address significant challenges to the U.S. potato industry. The anticipated amount available for grants in FY 2019 is approximately \$2.25 million.

This notice identifies the objectives for Potato Research projects, deadline dates, funding information, eligibility criteria for projects and applicants, and application forms and associated instructions needed to apply for a Potato Research grant. This is a region-based, integrated research and extension program that focuses on the development, testing, and release of superior commercial potato varieties.

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PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority and Background

7 U.S.C. 3157(c)(1)(B)(§ 2(c)(1)(B) of the Competitive, Special, and Facilities Research Grant Act authorizes this program. In accordance with the statutory authority, grants awarded under this program will be for the purpose of facilitating or expanding ongoing State-Federal food and agricultural research programs that promote: (i) Excellence in research on a regional and national level; (ii) Development of regional research centers; (iii) Research partnership between the Department of Agriculture, colleges and universities, research foundations, and State Agricultural Experiment Stations for regional research efforts; and (iv) Coordination and cooperation of research among states through regional research grants.

B. Purpose and Priorities

This grant program supports regional potato (*Solanum tuberosum* L.) research and extension that focuses on the development, testing, and release of superior commercial potato varieties using classical breeding and advanced molecular and biotechnological approaches. The development and utilization of high-throughput methods is highly encouraged that address significant or emergent issues of importance to the U.S. potato industry. Aspects of evaluation, screening, and testing must support commercial variety development and release of superior materials to commercial producers as soon as possible.

The Potato Research program encourages (but does not require) projects to develop content suitable for delivery through eXtension (<https://extension.org/>). This content is for “end users” as opposed to staff development and must align with the eXtension principles, implementation plan, and other requirements presented at <https://extension.org/about/>. Funds may be used to contribute to an existing Community of Practice or to form a new Community of Practice as appropriate.

The Potato Research program aligns with the USDA Strategic Plan (<https://www.usda.gov/our-agency/about-usda/strategic-goals>) and specifically addresses the following goals:

- Strategic Goal 1: Ensure USDA programs are delivered efficiently, effectively, and with integrity and a focus on customer service;
- Strategic Goal 2: Maximize the ability of American agricultural producers to prosper by feeding and clothing the world;
- Strategic Goal 4: Facilitate rural prosperity and economic development; and
- Strategic Goal 7: Provide all Americans access to a safe, nutritious and secure food supply.

C. Program Area Description

The Potato Research program (program code AN) will fund two-year projects that have great potential for developing and releasing new potato varieties with a high value to the commercial U.S. potato industry. The Potato Research program encourages applicants to establish and work through regional, multi-location, research breeding networks to address priority national or regional science needs of the potato industry. By bringing together expertise across multiple university, federal agency, and industry organizations and states, the Potato Research program

seeks to enhance the effectiveness of limited state, federal, and industry resources and accelerate the development of superior varieties that produce benefits to the potato industry.

NIFA is soliciting applications for FY 2019 Potato Research program that address one or more of the following research areas that will produce outcomes important to the U.S. potato industry:

1. Develop superior performing varieties with resistance to established and emerging pests and diseases including but not limited to potato virus Y, damaging nematodes, the late and early blight pathogen, white mold, powdery scab, storage rot diseases, PMTV, and *Dickeya* that limit sustained production, profitability, and market competitiveness;
2. Identify and incorporate traits into varieties for improved water and nutrient use efficiency that result in decreased demand for irrigation water and fertilizer applications, while maintaining desired yield and end market quality;
3. Identify and develop desirable yield, storability, consumer, and other value-added quality traits for use in new potato varieties; or
4. Develop high throughput methods for rapidly selecting traits, specifically for new superior-performing varieties targeted for specific markets.

The goals of this program imply that successful proposals will be associated with practicing, variety-releasing breeding programs. Fundamental science discovery projects that are not currently associated with a potato breeding program are not appropriate for this grant program. If this is the case, please consider the following programs instead that are applicable to potato research:

1. USDA NIFA, [AFRI Plant Breeding](#) for Agricultural Production
2. USDA NIFA, [AFRI Physiology of Agricultural Plants](#)
3. USDA NIFA, [Specialty Crop Research Initiative \(SCRI\)](#)
4. USDA ARS - State Partnership [Potato Research Program](#) (Contact Dr. Joseph Munyaneza, National Program Leader - Specialty Crops, USDA ARS).

Two Year Work Plan: Applicants will submit a two-year work plan with a budget for each of the two years. The two-year work plan and budget will be reviewed, but only the first year of funding for the work plan will be awarded in FY 2019. Second-year funding is contingent upon the following: the timely submission of a continuation request; a progress report that demonstrates successful compliance of the requirements of the program; and annual appropriations from Congress in FY 2020.

Applicants are encouraged to provide evidence of qualified staff, suitable equipment, and facilities; capacity to lead a multi-institutional, multi-state research and extension approach that involves potato growers and other industry partners; linkages among university, federal agency, and other researchers; and evidence of stakeholder participation in the development of research priorities and project objectives.

SPECIAL NOTE: Fiscal Year 2019 New program and submission requirements:

Industry Support Letter: At least one letter of support from industry partners is required. The intent of this letter is to verify industry relevance. This could include farmer organizations or other industry groups that understand the needs of the potato industry such as a state, regional,

or national association.

Management Plan: Applications must provide a Management Plan that describes public access to the research results (see Management Plan Section IV.B3.c7).

Information Dissemination Plan: The project must include a detailed plan and schedule for Extension and other customer and stakeholder engagement activities that support earliest-possible release and adoption for commercial use of new varieties, practices, or other technologies. Information developed should include as appropriate: formal or informal educational programs such as workshops, field days, and other extension, outreach, and engagement activities, as well as published documents including bulletins, extension guides, germplasm or variety releases, licensing agreements, and/or on-line media.

Technology Readiness Level (TRL): Applicants are expected to report information regarding the readiness status of new traits, advanced lines, and varieties developed through this program for use by breeders, potato seed certifying agencies or distributors, growers, processors, or other production system or end-product supply chain participants. As applicable, the present status of information or new technology components towards the market place at the beginning of the project and the expected advancement by the end of the project should be reported as measured by the [technology readiness level](#) (TRL).

Project Director Meeting: It is the intent of the Potato Research Program to require successful applicants to attend one project director (PD) meeting during each year of the project. The PD meeting may be held in Washington, DC in conjunction with other related grant programs, professional meetings, or potato industry board or other meetings. For budget development purposes, applicants are required to request funds to attend such a meeting (see Part IV B, 6 of this RFA.)

Examples of previously funded projects by the Potato Research program can be found by searching the [NIFA Data Gateway](#).

PART II—AWARD INFORMATION

A. Available Funding

The anticipated amount available for Potato Research grants in FY 2019 is approximately \$2.25 million.

There is no commitment by USDA to fund any particular application or to make a specific number of awards.

The Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Bureau of the Fiscal Service, is the designated payment system for awards resulting from this RFA. For more information see https://www.fiscal.treasury.gov/fsservices/gov/pmt/asap/asap_home.htm.

B. Types of Applications

In FY 2019, you may only submit a new application to the Potato Research Program:

New application. This is a project application that has not been previously submitted to the Potato Research Program. We will review all new applications competitively using the selection process and evaluation criteria described in Part V of this RFA, Application Review Requirements.

C. Project Types

Only region-based, multi-state projects which integrate research and extension objectives that address potato breeding to improve potato varieties, their adoption, and use for commercial production will be considered.

D. Scientific Peer Review

Subsection (c)(5) of the Competitive, Special, and Facilities Research Grant Act, as amended (7 U.S.C. 450i(c)(5)) requires applicants to conduct scientific peer review of their proposed research activities in accordance with regulations promulgated by the Secretary prior to the Secretary making a grant award under this authority. Authority for this program was transferred to 7 U.S.C. 3157. Regulations implementing this requirement are set forth in 7 CFR Part 3400.20. The regulations impose the following requirements:

1. **Scientific peer review:** Prior to the award of a standard grant, any proposed research project shall have undergone a review arranged by the grantee. Such review must be a scientific peer review conducted in accordance with 7 CFR 3400.21. Scientific peer review is an evaluation of a proposed project for technical quality and relevance to regional or national goals performed by experts with the scientific knowledge and technical skills to conduct the proposed research work. It must be credible, independent, and arranged by the applicant organization. Often this review is conducted by faculty peers and include

industry assessment for relevance to finding solutions to regional or national challenges. It may include USDA employees, but should not be conducted solely by USDA employees. Although evidence of a scientific peer review is not required until an award is ready to be finalized, peer reviews can improve the quality of a proposal. We thus encourage applicants to have proposals peer reviewed before submission.

2. Notice of completion and retention of records: A notice of completion of the review shall be conveyed in writing to NIFA as part of the Other Attachments (Field 12. of the R&R Other Project Information Form). The written notice constitutes certification by the applicant that a review in compliance with these regulations has occurred. Applicants are not required to submit results of the review to NIFA. However, proper documentation of the review process and results should be retained by the applicant. The notice should state: “In accordance with 7 CFR 3400.21, this memo is to certify that this project [title] has undergone a scientific peer review.” If this notification is included within the application, a signature is not necessary. If, however, it is submitted to NIFA after the application is submitted through Grants.gov, the memo must be on the institution’s letterhead and signed by the Authorized Representative.

E. Responsible and Ethical Conduct of Research

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 shall, upon request, make available to NIFA the policies, procedures, and documentation to support the conduct of the training. See <https://nifa.usda.gov/responsible-and-ethical-conduct-research> for more information.

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may only be submitted by State agricultural experiment stations, land-grant colleges and universities, research foundations established by land-grant colleges and universities, colleges and universities receiving funds under the 1962 McIntire-Stennis Cooperative Forestry Research Act, Pub. L. 87-778, as amended (16 U.S.C. 582a et seq.), and accredited schools or colleges of veterinary medicine. Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. Failure to meet an eligibility criterion by the time of application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award.

For those new to Federal financial assistance, a [grants overview page](#) is available on the NIFA website. This page includes information about free Grants 101 Training and other resources that are highly recommended for those seeking an understanding of Federal awards.

B. Cost Sharing or Matching

The Agriculture Improvement Act of 2018 (Pub. L. 115-334) removed the matching requirements for some NIFA competitive grants imposed by the Agricultural Act of 2014 (Pub. L. 113-79). Therefore, there are changes to the matching requirements for some funds awarded in 2019.

For FY 2019, NIFA does not require matching support for the Potato Research program and matching resources will not be factored into the review process as evaluation criteria.

PART IV—APPLICATION AND SUBMISSION INFORMATION

A. Electronic Application Package

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. We urge you to submit early to the Grants.gov system. For information about the pre-award phase of the grant lifecycle see <https://www.grants.gov/web/grants/learn-grants/grants-101/pre-award-phase.html>.

New Users of Grants.gov

Prior to preparing an application, we recommend that the Project Director/Principal Investigator (PD/PI) first contact an Authorized Representative (AR, also referred to as Authorized Organizational Representative, or AOR) to determine if the organization is prepared to submit electronic applications through Grants.gov. If not (e.g., the institution/organization is new to the electronic grant application process through Grants.gov), then the one-time registration process must be completed PRIOR to submitting an application. It can take as long as two weeks to complete the registration process so it is critical to begin as soon as possible. In such situations, the AR should go to **“Register,” in the top right corner of the Grants.gov web page (or go to <https://www.grants.gov/web/grants/register.html>), for information on registering the institution/organization with Grants.gov.** Part II.1 of the NIFA Grants.gov Application Guide contains detailed information regarding the registration process. Refer to item 2, below, to locate the “NIFA Grants.gov Application Guide.”

Steps to Obtain Application Package Materials

To receive application materials:

1. You must download and install a version of [Adobe Reader](#) compatible with Grants.gov to access, complete, and submit applications. For basic system requirements and download instructions, see <https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>. Grants.gov has a test package that will help you determine whether your current version of Adobe Reader is compatible.
2. To obtain the application package from Grants.gov, go to <https://www.grants.gov/web/grants/applicants/search-opportunity-package.html> and enter the funding opportunity number

Funding Opportunity Number: USDA-NIFA-SRGP-006734.

Click “search”. On the displayed page, click the corresponding link, “Select Package”, to continue. A Grant Application Package is tied to a particular funding opportunity. You may move forms amongst different Grant Application Packages but you may ONLY submit an application to the particular funding opportunity to which the Grant Application Package is associated.

Contained within the application package is the “NIFA Grants.gov Application Guide.” This guide contains an introduction and general Grants.gov instructions, information

about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If you require assistance to access the application package (e.g., downloading or navigating Adobe forms) **or submitting the application**, refer to resources available on the Grants.gov website (<https://www.grants.gov/web/grants/grantors/grantor-tools-and-tips.html?inheritRedirect=true>). Grants.gov assistance is also available at:

Grants.gov customer support
800-518-4726 Toll-Free or 606-545-5035
Business Hours: 24 hours a day, 7 days a week. Closed on [federal holidays](#).
Email: support@grants.gov

Grants.gov iPortal (see <https://grants-portal.psc.gov/Welcome.aspx?pt=Grants>):
Top 10 requested help topics (FAQs), Searchable knowledge base, self-service ticketing and ticket status, and live web chat (available 7 a.m. - 9 p.m. EST).
Have the following information available when contacting Grants.gov:

- Funding Opportunity Number (FON)
- Name of agency you are applying to
- Specific area of concern

B. Content and Form of Application Submission

Electronic applications are to be prepared following Parts V and VI of the NIFA Grants.gov Application Guide. This guide is part of the corresponding application package (see Section A of this part). The following is **additional information** you need to prepare an application in response to this RFA. **If there is discrepancy between the two documents, the information contained in this RFA is overriding.**

Note the attachment requirements (e.g., PDF) in Part III, Section 3 of the guide. ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (e.g., content format, PDF file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA REVIEW. Grants.gov does not check for NIFA required attachments or whether attachments are in PDF format; see Part III, Section 6.1 of the guide for how to check the manifest of submitted files. Partial applications will be excluded from NIFA review. We will accept subsequent submissions of an application until close of business on the closing date in the RFA (see Part V, 2.1 of the NIFA Grants.gov Application Guide for further information).

For any questions related to the preparation of an application, review the NIFA Grants.gov Application Guide and the applicable RFA. If assistance is still needed for preparing application forms content, contact:

- Email: electronic@nifa.usda.gov
- Phone: 202-401-5048
- Business hours: Monday through Friday, 7 a.m. – 5 p.m. ET, excluding [federal holidays](#).

1. SF 424 R&R Cover Sheet

Information related to the questions on this form is dealt with in detail in Part V, 2 of the NIFA Grants.gov Application Guide. See Part V, Section 2.17 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

2. SF 424 R&R Project/Performance Site Location(s)

Detailed information related to the questions on this form is available in Part V, 3 of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information Form

Detailed information related to the questions on this form is available in Part V, 4 of the NIFA Grants.gov Application Guide.

a. Field 7. Project Summary/Abstract.

The summary should also include the relevance of the project to the goals of the Potato Research Program. See Part V, 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

b. Field 8. Project Narrative.

NOTE: The Project Narrative shall not exceed 18 pages of written text, regardless of whether it is single- or double-spaced, and up to three additional pages for figures and tables. We have established this maximum (21 pages) to ensure fair and equitable competition.

The Project Narrative must include all of the following:

- i) Introduction. Identify which of the four research areas you are applying for and the percentage of the project in each area if multiple areas are addressed. Clearly state the high priority need of the potato industry, who will benefit and how they will benefit and the research and the specific goals of the proposed research. Summarize the body of knowledge or other past activities related to your proposed research citing the work of key project personnel or others that are relevant to the project. Preliminary data or information pertinent to the proposed research should be included in this section. If you have received previous funding from this program, be sure to outline that work and describe any relationship to this new work, especially if this new proposal builds off of early work. Describe the qualifications of key personnel, adequacy of facilities, and the plant breeding and project management capability of the applicant institution.
- ii) Rationale and Significance. Concisely present the rationale behind the proposed research as it relates to the goals of this RFA as well as the specific research area (section IC) you will be addressing. This section should address:
 - a. The priority-setting process and method of engaging stakeholder

- involvement and enlisting their support in problem identification, planning, implementation of the research, evaluation, and utilization of results.
- b. The application of your research to the long-range enhancement of the potato industry and U.S. agriculture.
 - c. Describe any coordination of your research in national or regional efforts, and how this research complements other work conducted by land-grant and other universities, Federal agencies, and industry. This may include utilization of Hatch and Hatch Multistate support, and industry funding and other resources contributing to the project.
 - d. Discuss the contributions and novel ideas that the proposed project offers.
- iii) Objectives. All applications must include a statement(s) of specific objectives of the proposed effort in clear, concise, complete, and logically arranged terms.
- iv) Approach. Describe how you will address each stated objective. Include in your approach:
- a. Methods to be used in carrying out the research and extension components.
 - b. Means by which results will be analyzed, assessed, and interpreted.
 - c. A detailed description of how you will communicate your findings and transfer your genetic materials, relevant information, and other technologies to specific, intended commercial users (Information Dissemination Plan).
 - d. A brief description of the overall potato breeding program and its capabilities, including a clear description of each team members' role and responsibility to this project.
 - e. For the entire project, a timeline that outlines all important phases as a year-by-year function of time, including periods beyond the grant funding period.
- v) Expected outcomes and benefit. Projects must include a clear description of expected accomplishments; the resulting potential benefits to the potato industry (specify which segments); and how the research's progress and benefits (outputs and outcomes) will be tracked and measured. This section can include:
- a. Anticipated specific uses and users of new genetic materials or other products.
 - b. Specific changes in knowledge about potato and its performance that will directly result from your research. Also, present the status and expected advancement to the market place of new plant materials, information, or other technology components measured as technology readiness level (TRL).
 - c. Performance measures that can be reported such as number of acres planted to a new potato variety, increased potato sales, relative changes in land use or production efficiencies, or changes in market share.
 - d. Estimated increases in profit or risk reductions when growing potato, or other quantitative measures impact.

- e. Describe the potential long-term benefits of utilizing the new technology based on current knowledge and practice, and the estimated impact on the potato industry and American agriculture.

NOTE: Appendices to the Project Narrative are allowed if they are directly germane to the proposed project. Do not add appendices to circumvent the page limit.

c. Field 12. Add Other Attachments

See Part V. Section 4.12 of the NIFA Grants.gov Application Guide (Field 12 on the form) for instructions for this field.

- i) **Collaborative Arrangements:** If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. If the consultants or collaborators are known at the time of application, a vitae or resume should be provided. In addition, evidence (e.g., signed letter of support) should be provided that the collaborators involved have agreed to render these services. Letters of collaboration must be signed by the respective ARs for both the applicant and the collaborator. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application, such as rate of pay.
- ii) **Scientific Peer Review Certification Documentation.** Notice that the scientific peer review has been completed should be included in the application (see Part II, D. item 2.).
- iii) **Industry Support Letter** (see Part I, C).
- iv) **Technology Readiness Level (TRL) (Mandatory filled form, in addition to project narrative):** It is mandatory that applicants include information on the readiness status for commercial use of information or technology components developed through this program. Each project is required to submit a project level technology readiness table in addition to individual readiness levels for each technology the project addresses. In addition, the technology development will be paired with outcomes that will create a full project view of the commercial value of the project's objectives. Details on how this information is required to be formatted can be found within the Crop Research TRL Worksheet, available as a program specific resource on the NIFA website:
<https://nifa.usda.gov/program/agronomic-forage-crops-program>.
- v) **Management Plan (Mandatory, one to two pages, in addition to project narrative):** The management plan is to be clearly articulated and include an organizational chart, administrative timeline, and a description of how the project will be governed, as well as a strategy to enhance coordination, collaboration, communication, and data sharing and reporting among members

of the project team. The plan must also address how the project will be sustained beyond termination of an award, if relevant.

The management plan should describe how the quality, expected measurable outcomes, and potential impacts for the proposed research, education and/or extension will be evaluated. Please include rationale for each role, and how the individual will function effectively to support the goals and objectives of the project. The plan must demonstrate how partners contribute to project assessment.

In addition, applications must provide a description and budgeted plan for releasing germplasm, cultivars, or other genetic resources that is compliant with the Research Terms and Conditions that govern NIFA-funded projects in the areas of plant breeding, genetics and genomics. These Research Terms and Conditions can be found at: <https://www.nsf.gov/awards/managing/rtc.jsp> . The following sections are particularly relevant: Genetic Resources from Outside of the U.S (page 5); Patents and Inventions including Plant Variety Protection (pages 6-8); and Release of Animal or Plant Genome Sequence Data and Distribution of Animal or Plant Genomic Resources, and the Release or Distribution of Plant Germplasm (pages 10-12).

- vi) **Data Management Plan.** A Data Management Plan (DMP) is required and is to 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.). **See Part III Section 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

The requirements for preparation and inclusion of a DMP in your application are included on the following web page, <https://nifa.usda.gov/resource/data-management-plan-nifa-funded-research-projects>. Also included on the web page are FAQs and information about accessing examples of DMPs. DMP components a. through e., below, are examples of information accessible through that web page:

- a. **Expected Data Type:** Describe the type of data (e.g. digital, non-digital) and how they will be generated (lab work, field work, surveys, etc.). Are these primary or metadata?
- b. **Data Format:** For scientific data to be readily accessible and usable it is critical to use an appropriate community-recognized standard and machine readable formats when they exist. The data should preferentially be stored in recognized public databases appropriate for the type of research conducted. Regardless of the format used (notebook, samples, images, spreadsheet, etc.), that data set should contain enough information to allow independent investigators to understand, validate, and use the data.

- c. **Data Storage and Preservation:** Applicants should outline strategies, tools, and contingency plans that will be used to avoid data loss, degradation, or damage during the project and long term.
- d. **Data Sharing and Public Access:** Describe your data access and sharing procedures during and after the grant. Provide any restrictions such as copyright, confidentiality, patent, appropriate credit, disclaimers, or conditions for use of the data by other parties.
- e. **Roles and Responsibilities:** Who will ensure implementation? This is particularly important for multi- investigator and multi-institutional projects. Provide a contingency plan in case key personnel leave the project. Also, what resources will be needed for the DMP? If funds are needed, have they been added to the budget request and budget narrative? Projects must budget sufficient resources to develop and implement the proposed DMP.

4. R&R Senior/Key Person Profile (Expanded)

Detailed information related to the questions on this form is available in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about senior/key person profile requirements, and details about the biographical sketch and the current and pending support, including a link to a suggested template for the current and pending support.

5. R&R Personal Data

As noted in Part V, 6 of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. Part V.6 also notes the importance and use of the information.

6. R&R Budget

Detailed information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

Project Director Meeting:

It is the intent of the Potato Research Program to require the awardee or designee to attend one project director meeting during each year of the term of their project. For the purposes of budget development, applicants are required to request funds for travel for attending such a meeting. The request for these funds should be clearly indicated in the budget narrative section of the application.

Indirect Costs. For further information and instructions regarding indirect costs, refer to Part V, section 7.9 of the NIFA Grants.gov Application Guide. For indirect cost funding restrictions, refer to Part IV, D. of this RFA.

7. Supplemental Information Form

Detailed information related to the questions on this form is available in Part VI, 1 of the NIFA Grants.gov Application Guide.

- a. **Field 2. Program to which you are applying.** Enter the program code name (i.e., enter “Potato Research”) and the program code (i.e., enter “AN”). Note that accurate entry of the program code is very important for proper and timely processing of an application.
- b. **Field 8. Conflict of Interest List.** See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

8. Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants

This is a required form for corporate applicants. See Part VI, 2 of the NIFA Grants.gov Application Guide for a description of the term, “corporation,” and detailed information related to the questions on this form.

C. Submission Dates and Times

We recommend that you conduct an administrative review of the application before submission of it via Grants.gov to ensure that it complies with all preparation instructions. An application checklist is included in Part VII of the NIFA Grants.gov Application Guide to assist with this review.

The Potato Research program also has unique requirements, such as present status and expected advancement assessment of information or technology components towards the market place measured as technology readiness level (TRL). Applicants should ensure that all required components are included.

While the checklist should be used to check the application for completeness, the application should be checked for the following required item(s). This is not an exhaustive list of required items; it only serves to highlight items that may be overlooked. The list includes:

- Crop Research Technology Readiness Level (TRL) description of information and technology advancement
- Budget: Shows two years with associated budget narrative
- Management Plan and Data Management Plan
- Current and Pending Support forms for each PD and Co-PD
- Signed Tax and Felony Certification Form
- Letter of support from industry group

Instructions for submitting an application are included in Part IV, Section 1.5 of the NIFA Grants.gov Application Guide.

Applications must be received by Grants.gov by **5 p.m. Eastern Time on May 21, 2019**. Applications received after this deadline will normally not be considered for funding.

If you have trouble submitting an application to Grants.gov, you should FIRST contact the Grants.gov Help Desk to resolve any problems. Keep a record of any such correspondence. See Part IV. A for Grants.gov contact information.

We send email correspondence to the AR regarding the status of submitted applications. We strongly encourage you to provide accurate email addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If the AR has not received correspondence **from NIFA** regarding a submitted application within 30 days of the established deadline, contact the Agency Contact identified in Part VII of the RFA and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, you should cite this number on all future correspondence.**

D. Funding Restrictions

Per Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) Indirect Costs is not allowed for the Special Research Grants Program Potato Research.

NIFA has determined that grant funds awarded under this authority may not be used for the renovation or refurbishment of research, education, or extension space; the purchase or installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

All costs being charged to this award must be incurred within the project period. If a project is selected for funding, additional information may be requested from the applicant.

E. Other Submission Requirements

You should follow the submission requirements noted in Part IV, Section 1.5 in the document entitled “NIFA Grants.gov Application Guide.”

For information about the **status of a submitted application**, see Part III, Section 6 of the NIFA Grants.gov Application Guide.

PART V—APPLICATION REVIEW REQUIREMENTS

A. General

We evaluate each application in a two-part process. First, we screen each application to ensure that it meets the administrative requirements as set forth in this RFA. Second, a technical review panel will evaluate applications that meet the scientific requirements.

We select reviewers based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors:

- 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;
- The need to include experts from various areas of specialization within relevant scientific, education, or extension fields;
- The need to include other experts (e.g., producers, resource conservation managers, shippers, wholesalers, and consumers) who can assess relevance of the applications to targeted audiences and to program needs;
- 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;
- The need to maintain a balanced composition with regard to minority and female representation and an equitable age distribution; and
- The need to include reviewers who can judge the effective usefulness of each application to producers and other potato production and supply chain participants, as well as consumers and the general public.

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

NIFA reserves the right to negotiate with the PD/PI and/or with 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.

We will send copies of reviews, *not* including the identity of reviewers, and a summary of the panel comments to the PD after the review process has been completed.

B. Evaluation Criteria

A reviewer's written evaluation entails two levels of assessment. First, the reviewer summarizes how well the application addressed each evaluation criterion. After the application has been assessed for strengths and weaknesses of each criterion, the reviewer then evaluates the overall likelihood that the project will have significant outcome and impact. These written reviews are used to begin panel discussions with other reviewers serving on the peer review panel. Through these discussions, peer review panelists come to consensus on the final rating and ranking of

proposals. A complete description of NIFA's peer review process can be found at the NIFA website: <https://nifa.usda.gov/resource/nifa-peer-review-process-competitive-grant-applications>.

We will use the evaluation criteria below to review applications submitted in response to this RFA:

1. **RFA alignment** (5 points). Application clearly states which RFA research area(s) will be addressed, and the specified objectives are relevant to RFA purpose and priorities.
2. **Design** (60 points). Each of the following components will be considered:
 - The application's methodologies and analytical approaches are appropriate to project objectives, have high scientific merit and effectively integrate the research and extension activities. (25 pts)
 - The application demonstrates a "whole systems approach"; that is a compelling understanding of the problem(s) it will address, the regional production system as a whole, and how the proposed solution(s) will contribute to both. (5 pts)
 - Data Management Plan (DMP) is appropriate, clearly described, and feasible (5 pts).
 - Project is well planned and potentially attainable within project time, scope, and budget. A clear distinction between past work and future work should be described. (The Crop Research TRL (see I.C.) can be used to explain the differences in past and proposed future research.) (10 pts)
 - Awareness of previous or alternative approaches are identified and explained when necessary. Even if a single component is the focus of the project, the proposal must provide a thorough analysis of the broader systems context for why that component is critical. (5 pts)
 - Project feasibility, or likelihood it will help maintain potato as a crop grown in the U.S. and advance the science. (10 pts)
3. **Appropriateness of budget** (5 points). Budget allocations reflect the personnel and tasks associated with the activities needed to accomplish the objectives. The budget plan describes how this program's funding complements other funding sources including Federal capacity and competitive funds, and state, industry, and other kinds of support.
4. **A region-based, multi-state, and industry-engaged approach** (10 points). The application documents the necessary collective expertise in biological sciences, physical sciences, engineering, socio-economic sciences, extension, and program evaluation, as well as participation from principal stakeholders and partners. Qualifications of project personnel and engagement with industry are clearly demonstrated. How these experts collaborate to reach project goals, increasing the sustainability, productivity and profitability of the potato industry, should be well described.
5. **Outreach plan** (20 points). Application includes a detailed extension engagement and outreach plan and schedule for how 1) team interacts with interested communities (e.g. farmers) to understand need and 2) new genetic materials, information, knowledge, and technology will be delivered to those served by the project. A description of how extension outreach impacts will be measured and reported is also included.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, we take extreme care to prevent any actual or perceived conflicts of interest that may impact review or evaluation. See <https://nifa.usda.gov/resource/nifa-peer-review-process-competitive-grant-applications> for further information about conflicts of interest and confidentiality as related to the peer review process.

D. Organizational Management Information

Specific management information relating to an applicant shall be submitted one-time, with updates on an as-needed basis. This requirement is part of the responsibility determined prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another NIFA program. We will provide you copies of forms recommended for use in fulfilling these requirements as part of the pre-award process. Although an applicant may be eligible based on its status as one of these entities, 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 involved or a determination that an applicant is not responsible based on submitted organizational management information).

E. Application Disposition

An application may be withdrawn at any time before a final funding decision is made regarding the application. Each application that is not selected for funding, including those that are withdrawn, will be retained by NIFA for a period of three years.

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the NIFA awarding official shall make grants to those responsible, 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 shall 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 at 7 CFR part 3430, subparts A through E.

B. Award Notice

The award document will provide pertinent instructions and information including, at a minimum, the information described in [2 CFR 200.210](#).

See <https://nifa.usda.gov/terms-and-conditions> to view current NIFA award terms and conditions.

C. Administrative and National Policy Requirements

Several federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These may include, but are not limited to, the ones listed on the NIFA web page – <https://nifa.usda.gov/federal-regulations>.

NIFA Federal Assistance Policy Guide—a compendium of basic NIFA policies and procedures that apply to all NIFA awards, unless there are statutory, regulatory, or award-specific requirements to the contrary—is available at <https://nifa.usda.gov/policy-guide>.

Responsible and Ethical Conduct of Research

Refer to Part II, D for more information.

D. Expected Program Outputs and Reporting Requirements

The output and reporting requirements are included in the award terms and conditions (see <https://nifa.usda.gov/terms-and-conditions> for information about NIFA award terms). If there are any program or award-specific award terms, those, if any, will be identified in the award.

It is expected that the program outputs will conform to the purpose of the Potato Research Program.

The principal outputs will consist of new, superior performing potato varieties developed using classical, molecular, and biotechnology methods that are brought to the market place as fast as possible.

Information documenting the optimal use and benefits to utilizing these materials by production and supply chain users, and consumers.

Ancillary or supplemental outputs may include, but are not limited to improved classical, molecular, or biotechnology methods for increasing the efficiency of variety development; or, other improvements in bringing new superior performing varieties to growers and the market place.

PART VII—AGENCY CONTACTS

Applicants and other interested parties are encouraged to contact:

Programmatic Contact –

Ann Marie Thro
Title: National Program Leader
Unit: Institute of Food Production and Sustainability
Location: 3192 Waterfront Centre
[Full Address and Directions](#)
Phone: (202) 401 6702
Fax: (202) 401-6156
Email: athro@nifa.usda.gov

Alternate Programmatic Contacts –

Megan O'Reilly
Title: Program Specialist
Unit: Institute of Food Production and Sustainability
Location: 3414 Waterfront Centre
[Full Address and Directions](#)
Phone: (202) 445-5410
Fax: (202) 401-1782
Email: moreilly@nifa.usda.gov

Jeffrey Steiner
Title: Division Director
Unit: Institute of Food Production and Sustainability
Location: 3131 Waterfront Centre
[Full Address and Directions](#)
Phone: (202) 734-1067
Fax: (202) 401-6156
Email: jeffrey.steiner@nifa.usda.gov

Administrative/Business Contacts –

Sondra Watkins
Title: Team Leader
Unit: Office of Grants and Financial Management
Location: 2170 Waterfront Centre
[Full Address and Directions](#)
Phone: (202) 401- 4249
Fax: (202)-401-6271
Email: swatkins@nifa.usda.gov

Rochelle McCrea
Title: Team Leader
Unit: Office of Grants and Financial Management
Location: 2160 Waterfront Centre
[Full Address and Directions](#)
Phone: (202) 401-2880
Fax: (202) 401- 6271
Email: rmccrea@nifa.usda.gov

PART VIII—OTHER INFORMATION

A. Use of Funds; Changes

1. 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.

2. 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:

- (i) Change in the scope or the objective of the project or program (even if there is no associated budget revision requiring prior written approval).
- (ii) Change in a key person specified in the application or the federal award.
- (iii) The disengagement from the project for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.
- (iv) The inclusion, unless waived by the federal awarding agency, of costs that require prior approval in accordance with 2 CFR 200 Subpart E—Cost Principles of this part 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 Part 31, “Contract Cost Principles and Procedures,” as applicable.
- (v) The transfer of funds budgeted for participant support costs as defined in §200.75 Participant support costs to other categories of expense.
- (vi) Unless described in the application and funded in the approved federal awards, the sub-awarding, transferring or contracting out of any work under a federal award, including fixed amount sub-awards as described in §200.332 Fixed amount sub-awards. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.
- (vii) Changes in the approved cost-sharing or matching provided by the non-federal entity.
- (viii) The need arises for additional federal funds to complete the project.

The awardee will be subject to the terms and conditions identified in the award. See <https://nifa.usda.gov/terms-and-conditions> for information about NIFA award terms.

B. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of the record of NIFA transactions, available to the public upon specific request. Information that the Secretary of Agriculture determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the

application. We will retain for three years a copy of an application that does not result in an award. Such an application will be released only with the consent of the applicant or to the extent required by law. An application may be withdrawn 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.

D. Definitions

Please refer to [7 CFR 3430, Competitive and Noncompetitive Non-formula Financial Assistance Programs--General Award Administrative Provisions](#), for applicable definitions for this NIFA grant program.

In addition, the following definition is specifically applicable to this RFA:

Partnership requires that all partners have a substantial involvement in the project throughout the life of the project. If a partnership between multiple entities is proposed, the proposal must clearly identify the following:

1. A narrative of each entity's clearly established role in the project;
2. How each entity involved as a partner on the project will contribute to execution of project objectives, determine experimental design, develop the project work plan and time table, and submit collaborative, timely reports; and
3. A comprehensive project budget that reflects each entity's financial or in-kind contribution to the total project budget costs.