United States Department of Agriculture

National Institute of Food and Agriculture

Professional Development Opportunities for Secondary School Teachers

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Professional Development Opportunities for Secondary School Teachers

QUICK OVERVIEW

What This Section Covers

- What is PD-STEP? (Grant)
- What is AFRI's Education RFA (Portfolio)
- What is AFRI? (Program)
- What is NIFA? (Agency)

The National Institute of Food and Agriculture (NIFA)

The National Institute of Food and Agriculture (NIFA) provides leadership and funding for food, agricultural, natural resources, and human sciences.

To further this mission, NIFA also provides funding to train the next generation of agricultural researchers.

The agency prioritizes ensuring students from all backgrounds have an opportunity to pursue careers in agricultural and related sciences.

The flagship funding portfolio within NIFA is the Agriculture and Food Research Initiative (AFRI)

Agriculture and Food Research Initiative (AFRI)

AFRI is NIFA's flagship grant program. The grant funds research, education, extension, and integrated grants that address key problems of national, regional, and multi-state importance in sustaining all components of agriculture. There is a special AFRI portfolio for education.

Examples		
Farm efficiency and profitability	Ranching	Renewable energy
Forestry (urban and agroforestry)	**Education**	Biotechnology
Rural communities/entrepreneurship	Human nutrition/food safety	Aquaculture

AFRI Food, Agriculture, Natural Resources and Human Sciences Education and Literacy Initiative

Professional Development Opportunities for Secondary School Teachers (PD-STEP)

Pre-doctoral Fellowships

Post-doctoral Fellowships

Undergraduate Research and Extension Experiential Learning Fellowships

Who Can Apply for PD-STEP?

4-year Colleges and Universities

2 & 4 year 1994 Land-Grant Institutions

2 & 4 year Hispanic-serving agricultural colleges and universities

All projects should seek to train secondary school educators for enhanced student outcomes in the Food, Agriculture, Natural Resources, and Human sciences

Professional Development for Secondary School Teachers and Educators

Objective: Provide immersive learning experiences in non-formal educational programs for secondary school educators, enabling them to identify and replicate best practices to enhance student outcomes in the food, agricultural, natural resources, and human (FANH) sciences

(Educators: teachers, counselors, principals, school farm managers, librarians, etc.)

Example of Immersive Learning: UKY Water Justice Workshop. Training Provided In:

Example cont'd : UKY Water Justice Workshop

Participants discussed:

communities sharing a watershed with industry and issues of pollution

community forestry and water supply techniques from Indonesia that could be adapted for use in Appalachia

privatization and different models of water distribution

Potential Projects

Developing **self-sustaining models** for professional development that better prepare education professionals to provide outstanding teaching, guidance, institutional structures, etc. that enhance student outcomes in FANH sciences.

Example: Training program for administrators examining cutting edge research on course organization and scheduling and the value of service learning

Result: Courses are better aligned; teachers have time to provide hands-on training in the Ag-related STEM fields that are in-demand; and students now work with local partners to use the skills they learn in the classroom to benefit their community

Potential Projects

Changing instructional approaches to effectively identify skill gaps and address conceptual areas particularly challenging to students.

Example: A majority of the high school students in your area need to take remedial math and English their first year in college.

You develop a project with Mathematicians, STEM Education Researchers and family and consumer sciences and 4-H extension agents in your area to could work with teachers on how to enhance student outcomes in math through experiments in Robotics

Integrating innovations in science and pedagogy into existing teacher professional development programs (e.g. through hands-on research/extension experiences for teachers with partner institutions and labs).

Example: Lecture followed by a 2 hour lab is the current way to teach a certain high-school science course at the schools in your area. But research shows that a 3- hour session with short 10-15 minutes talks followed immediately by an activity result in far greater skill retention rates for students.

Project: Training for educators on:

- What does the research say? Why does it work?
- How can they convert their current courses to this new model.
- Visits to industry or labs to help educators see the science first hand; and make connections for virtual presentations for their classrooms

These are just examples.

Other methods and approaches are not prohibited.

The funded projects are expected to increase the number of secondary school teachers and educational professionals trained in food, agriculture, natural resources and human (FANH) sciences.

Applications that seek to enhance student outcomes through:

- ❑ engagement with industry and nonprofit organizations (e.g., through collaborating mentors)

and/or

- ❑ that better connect education professionals, particularly those from low-resource schools, to existing USDA/Federal resources (i.e. with Extension offices, federal labs, open data resources, etc.)

Participating teachers are expected to:

- ❑ build their skills necessary for integrating FANH concepts in their classes
- ❑ explore the opportunities available in the FANH career paths
- ❑ forge mentorships with professional and business leaders and college and university faculty

Professional Development Opportunities for Secondary School Teachers

PROGRAM GUIDANCE

The Request for Applications (RFA)

An RFA is your instruction manual for writing a grant

The 2016 RFA is open and accepting applications. It is available at http://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-food-agriculture-natural-resources-and

Reading the RFA and following it carefully is the best thing you can do to create a successful proposal.

Applications are due March 18, 2016, submitted through Grants.gov by 5 pm EST.

What This Section Covers

- AFRI Foundational or Challenge areas
- Integrated Projects
- Budgeting
- Funding Restrictions
- Prepare a winning application

AFRI Foundational and Challenge areas (Select One or More for a PD-STEP Proposal)

Foundational Area

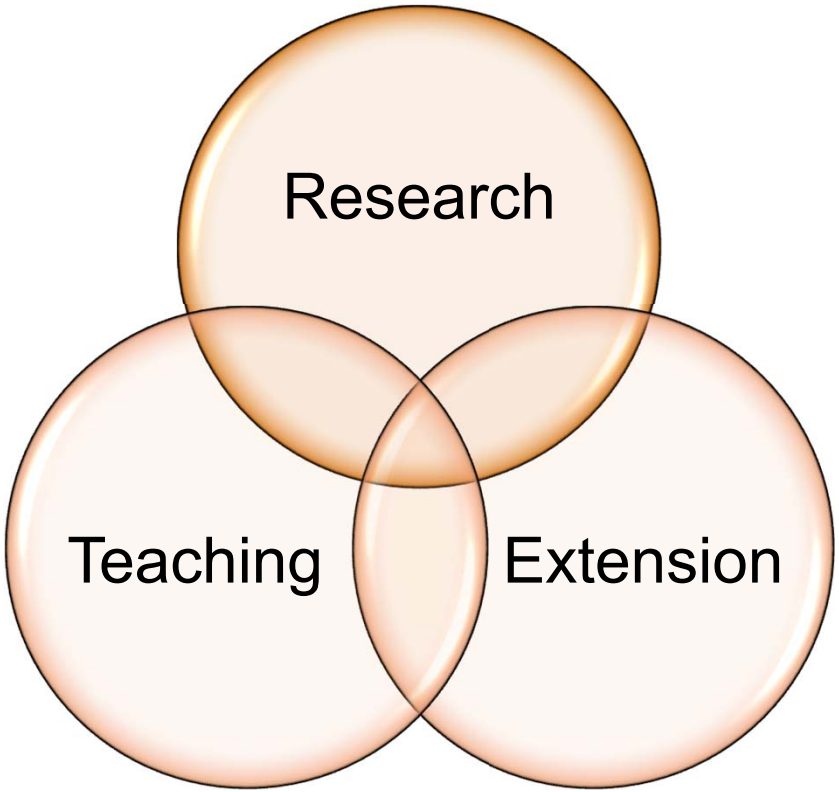
- Plant health and production and plant products
- Animal health and production and animal products
- Food safety, nutrition, and health
- Bioenergy, natural resources, and environment
- Agriculture systems and technology
- Agriculture economics and rural communities

Challenge Area

- Climate Variability and Change
- Childhood Obesity Prevention
- Food Safety
- Food Security
- Sustainable Bioenergy
- Water Resources

PD-STEP Projects Must Be Integrated

Integrated project means a project incorporating two or three functions of the agricultural knowledge system (research, education, and extension—community focused education) around a problem or activity.



How Are Applications Evaluated?

Pedagogical Merit of the Application	Qualifications of Project Personnel, Adequacy of Facilities, and Project Management	Project Relevance
Novelty, multidisciplinary innovation, Proposed approach, procedures, or methodologies are appropriate, clearly described and feasible	Roles of key personnel are clearly defined Evidence that the identified institution has capacity and competence in the proposed area of work	Evaluation plan is reliable and appropriate Science-based knowledge and capabilities gained are related to the NIFA foundational and challenge areas

Read the RFA carefully for a full evaluation criteria

Budgeting: PD-STEP Basics

- Budget may not exceed $150,000; project may be extended up to three years
- What can go in the budget?
  - Secondary school participant stipends and travel
  - Costs of continuing education units
  - Provider personnel salaries
  - Software
  - Curricula
- The grant allows applicants to take indirect costs
- Matching: ONLY required if project is commodity specific and not of national scope

Budgeting: Indirect Costs

Indirect costs are costs that are not directly accountable to a cost object (such as a particular project, facility, function or product).

Examples of indirect costs are administration, personnel, security costs, and overhead.

http://nifa.usda.gov/indirect-costs

Funding Restrictions

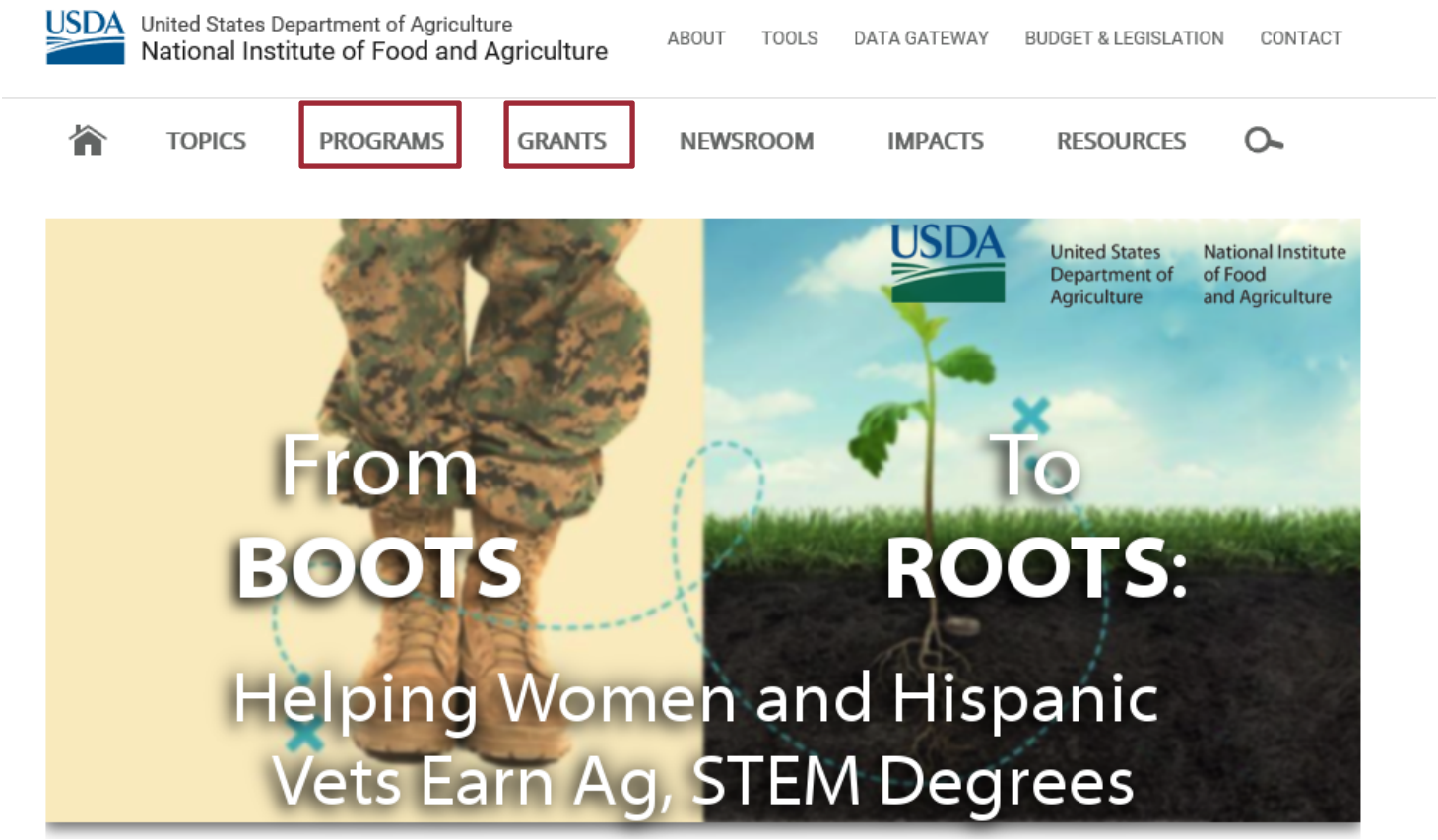
- Target must be current secondary education professionals
- The project director must be from the primary host institution
- The project director and undergraduate fellows must be citizens, nationals, or permanent residents of the United States
- There are no citizenship requirements for Co-project director
- Each institution can submit up to three proposals, but will only get one award each year
- AFRI ELI programs can’t be used for the construction of a new building or facility or the acquisition, expansion, remodeling, or alteration of an existing building or facility.

Professional Development Opportunities for Secondary School Teachers

HOW TO APPLY

Step 1: Read the Request for Applications

WWW.NIFA.USDA.GOV



Step 1: Read the Request for Applications

http://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-food-agriculture-natural-resources-and

Agriculture and Food Research Initiative - Food, Agriculture, Natural Resources and Human Sciences Education and Literacy Initiative

Program: Agriculture and Food Research Initiative | AFRI Education and Literacy Initiative | Educational Scholarship Programs

The AFRI Food, Agriculture, Natural Resources, and Human Sciences Education and Literacy Initiative (ELI) provides fellowships to undergraduate, predoctoral, and postdoctoral students in the agricultural sciences.

APPLY FOR GRANT | VIEW RFA

Where You Apply: WWW.Grants.Gov

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Funding Opportunity Number	Opportunity Title	Agency
W81XWH-17-DMRDP-MID-CSA	DoD Joint Program Committee/Military Infectious Diseases Clinical Study Award	Dept. of the Army -- USAMRAA
W81XWH-17-DMRDP-MID-ARA	DoD Joint Program Committee-2/Military Infectious Diseases Applied Research Award	Dept. of the Army -- USAMRAA

Caution: Grants.Gov

First-Time Applicants: Be Advised:

Grants.gov requires you to have a DUNS and SAM identification. Getting these credentials may take a few months.

If this is your first time applying for a federal grant, make sure your institution is capable a submitting through Grants.gov.

Also, make sure you have the ability to save and create documents as Adobe PDFs. Grants.gov will not process other documents.

Go to the Grants.gov section on organization registration or Grants.gov support for details. Don’t wait until the week applications are due!!

FAQ's Are Available on our website:

http://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-food-agriculture-natural-resources-and

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