

Opportunity Title: USDA-ARS Using Enhanced Efficiency Fertilizers to Maintain Agronomic Performance and Improve Environmental Outcomes
Opportunity Reference Code: USDA-ARS-PA-2026-0203C

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PA-2026-0203C

How to Apply *To submit your application, scroll to the bottom of this opportunity and click APPLY.*

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations
- A copy of an abstract or reprint of an article

All documents must be in English or include an official English translation.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!"

Application Deadline 7/17/2026 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis.

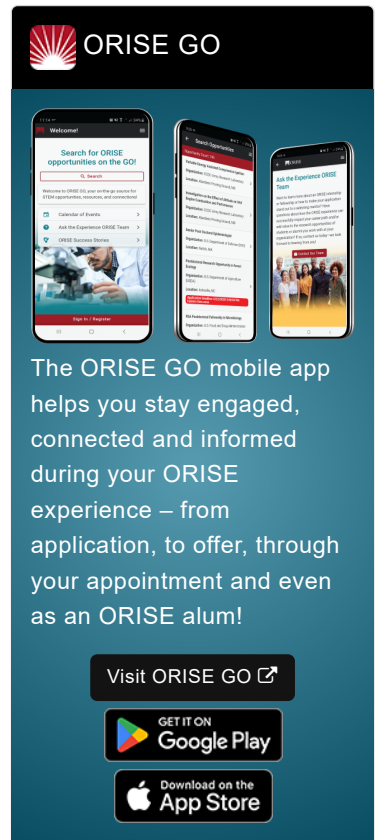
ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Temple, Texas.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The overall goal of this project is to provide a background for improved understanding and management of agronomic systems to reduce our reliance on foreign fertilizers. Agronomic management of field crops requires efficient use of fertilizers to optimize multiple outcomes, such as crop production, profitability and environmental impact. Under the guidance of a mentor, the participant will collaborate with a team of scientist to evaluate how agronomic management of nitrogen fertilizers throughout the United States affects these multiple outcomes of production, profitability and environmental impact. Of particular interest are fertilizer timing and source (to include enhanced efficiency fertilizers). Environmental impact





OAK RIDGE INSTITUTE
FOR SCIENCE AND EDUCATION




ORISE GO

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON
 Google Play

Download on the
 App Store

Opportunity Title: USDA-ARS Using Enhanced Efficiency Fertilizers to Maintain Agronomic Performance and Improve Environmental Outcomes

Opportunity Reference Code: USDA-ARS-PA-2026-0203C

outcomes include atmospheric losses and water quality that result from the agronomic management of crops. Ancillary data (meteorological, river stage, inundation of cropland areas, water quality, NO(x) fluxes, and agronomic management) will be analyzed geospatially and temporally to determine the potential benefits of improved fertilizer management for all the outcomes of concern.

Learning Objectives:

- Learn the principles of nitrogen management in agronomic systems and their implications for crop productivity, profitability, and environmental sustainability.
- Learn to evaluate the effects of fertilizer timing, source, and enhanced-efficiency fertilizers on agricultural and environmental outcomes.
- Learn to collect and integrate ancillary datasets, including meteorological data, river stage, cropland inundation, water quality metrics, NO(x) fluxes, and agronomic management records.
- Learn to conduct geospatial and temporal analyses to assess the environmental and economic impacts of fertilizer management practices.
- Learn to contribute to the development of scientifically defensible, data-driven agronomic guidelines that inform sustainable agriculture.

Mentor(s): The mentor for this opportunity is Douglas Smith (douglas.r.smith@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: July 2026 Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. **The anticipated stipend range is \$5,800 - \$7,400 monthly.**

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Opportunity Title: USDA-ARS Using Enhanced Efficiency Fertilizers to Maintain Agronomic Performance and Improve Environmental Outcomes

Opportunity Reference Code: USDA-ARS-PA-2026-0203C

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process, please email ORISE.ARS.Plains@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a doctoral degree in one of the relevant fields. Degree should have been received within the past 60 months or anticipated to be received by or near start of appointment.

Preferred skills:




- Experience on a farm or collaborating with farmers.
- Understand agronomic management and the interactions between when rainfall occurs and how agricultural producers will change their practices from year to year based on that.
- Skills in seeking data from various public and private outlets, know how to organize and store diverse datasets, use common statistical analysis and how to write reports and manuscripts.
- Experience with geospatial statistics over broad geographic regions.

Stipend \$5,800.00 – \$7,400.00 Monthly

Point of Contact [Janeen](#)

Eligibility • **Citizenship:** U.S. Citizen Only

Requirements • **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.

- **Discipline(s):**
 - **Engineering** (1 )
 - **Environmental and Marine Sciences** (4 )
 - **Life Health and Medical Sciences** (3 )