

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Soil and Crop Modeling

Opportunity Reference Code: USDA-ARS-MWA-2026-0326

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MWA-2026-0326

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

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

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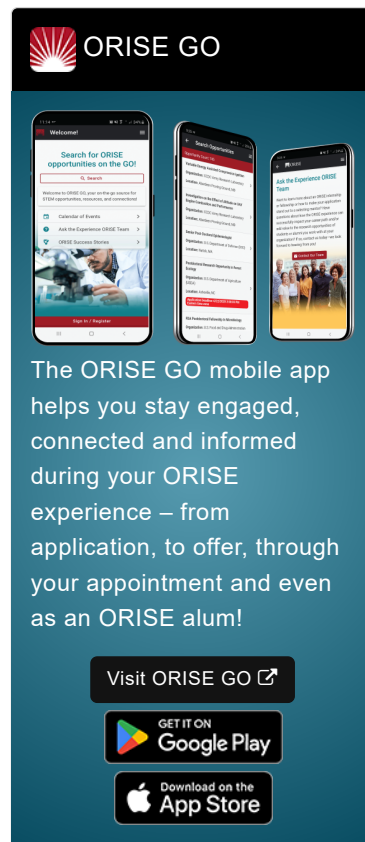
Application Deadline 10/23/2026 3:00:00 PM Eastern Time Zone

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 Madison, Wisconsin.

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 Environmentally Integrated Dairy Management Research Unit (EIDMRU) within the U.S. Dairy Forage Research Center (DFRC) has an opportunity for a Post Doctoral Research Fellow to engage in a process and statistical modeling research opportunity focused on improving nutrient use efficiency in Midwest dairy agroecosystems. You will participate closely with USDA-ARS Research Soil Scientists to apply a whole farm process model (Ruminant Farm Systems model-Soil and Crop Module; RuFaS-SCM) to predict crop yields, nutrient uptake and losses; perform model calibration/validation as needed. In addition, you will have an opportunity to use well established crop/farm decision support tools to quantify cropping system, nutrient input, and weather impacts on soil erosion and losses of nitrogen (N) and phosphorus (P) in surface runoff from long-term paired watersheds. Results of the study will improve nutrient use efficiency and advance our knowledge of dairy agroecosystem soil-plant-nutrient interactions. In addition, results will support dairy and agri-environmental stakeholder efforts to improve nutrient loss prediction and development and application of the RuFaS-SCM.



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You will participate alongside USDA-ARS and university scientists on nitrogen (N) and phosphorus (P) in surface runoff losses in the dairy forage system.

Learning Objectives: Under the guidance of a mentor, you will have the opportunity to learn to:

- Apply RuFaS-SCM to support USDA-ARS research priorities in nutrient use efficiency and dairy agroecosystem sustainability.
- Use model calibration, validation, and performance evaluation using USDA-ARS long-term datasets to develop manure nutrient management strategies in the dairy agroecosystem.
- Evaluate crop and farm decision-support tools to evaluate how management practices and weather influence soil erosion and nutrient runoff.
- Understand soil–plant–nutrient interactions that influence sustainability in dairy forage systems.

Mentor(s): The mentor for this opportunity is Pradip Adhikari (pradip.adhikari@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: **October 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.

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.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process, please email ORISE.ARS.Midwest@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 the one of the relevant fields (e.g. Soil Science, Agronomy, Agricultural Engineering, Hydrology, or related field). Degree must have been received within the past five years, or anticipated to be received by December 31, 2026.

Preferred Skills:

- Modeling experience
- Advanced knowledge of agronomy, nutrient management, statistics, and model development/application

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Stipend \$79,200.00 Yearly

Point of Contact [Sara Beth](#)

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** ([2](#)👁)
- **Life Health and Medical Sciences** ([2](#)👁)

• **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).