Opportunity Title: USDA-ARS Postdoctoral Fellowship in Livestock Waste Treatment, Wastewater Re-use, and Byproduct Utilization in Agriculture
Opportunity Reference Code: USDA-ARS-SEA-2025-0262

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2025-0262

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 3/13/2026 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 Florence, South Carolina, at the Coastal Plains Soil, Water, and Plant Research Center.

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 mission of the Coastal Plains Soil, Water, and Plant Research Center in Florence, SC is to conduct research and transfer solutions that improve agricultural production, protect the environment, and enhance the conservation of natural resources - all within an efficient and profitable agriculture. The participant will be part of research team tasked to develop improved and new technologies for livestock waste treatment and the utilization of manure byproducts. The participant will collect and analyze data on system performance, nutrient recovery/removal efficiency,

treatment economics, and environmental impacts across multiple operational scales.

Learning Objectives: The participant will gain hands-on experience and acquire knowledge in engineering solutions for nutrient recovery and/or removal from manure and animal wastewater, as well as circular-economy technologies that transform waste into valuable resources. This will be achieved through learning about the design and optimization of physical, chemical, and biological treatment processes.

Under the guidance of a mentor, the participant will learn and deepen their understanding in the following areas:

- Innovative biological, chemical, and physical treatment technologies to produce value-added products from animal waste.
- Manure treatment systems that mitigate odors and pathogens while improving animal health and reducing mortality rates.
- Advanced methods and strategies for recovering phosphorus and ammonia from wastewater and solid manure streams.
- Cutting-edge technologies for enhanced biological wastewater treatment, including nitrification and anammox pathways, to support water reuse in integrated animal-crop systems.
- Effective and safe applications of agricultural-industrial byproducts to create new revenue opportunities for producers.

Mentor(s): The mentor for this opportunity is Todd Campbell (todd.campbell@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 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 $6,000 - $6,500 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

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through ORISE.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process, please email ORISE.ARS.Southeast@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. biosystems, agricultural, chemical, or environmental engineering, or a related field). Degree must have been received within the past five years or is anticipated to be received by 5/31/2026.

Preferred skills:

- Comprehensive knowledge of integrating basic concepts of soil, water, and environmental sciences.
- A strong background in chemistry and wastewater treatment processes, and the capability to conduct both lab and field pilot research.
- Working knowledge in engineering, water quality, animal production, biochemistry, organic chemistry, biology, microbiology, waste management, nutrient recycling, treatment techniques, statistical analysis, and environmental and materials science.
- Creative thinking, innovativeness, novel interpretation of data, awareness of new concepts in related waste treatment disciplines, and the ability to conduct collaborative research involving scientists from various disciplines and locations.
- Ability to interact with research team members to design bench, pilot, and full-scale systems.
- Demonstrated ability to report results in peer-reviewed refereed journal articles.

Stipend $6,000.00 – $6,500.00 Monthly

Point of Contact Janeen

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 5/31/2026 12:00:00 AM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (2 👁)
  - **Engineering** (5 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (5 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).