Opportunity Title: USDA-ARS Postdoctoral Research Fellowship in Weed Biology/Physiology
Opportunity Reference Code: USDA-ARS-SEA-2026-0193

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2026-0193

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.

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), within the Crop Production Systems Research Unit located in Stoneville, Mississippi.

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: This research is a component of ARS National Programs 305 (Crop Production) and 304 (Crop Protection & Quarantine). Throughout the course of this project, the participant will learn about project management by being a part of research aimed at identifying key differences in physiology, growth characteristics, photosynthetic capacities, adaptability, competitiveness, and responses to stress and other fitness criteria of invasive and wild-type versus herbicide-resistant weed biotypes. The participant will learn to collect and analyze data related to weed control, herbicide efficacy, and comparison of whole-plant physiological processes of herbicide-resistant weed populations with corresponding susceptible populations under controlled environmental conditions. These insights are important for predicting the

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ecological success of resistant populations and developing more sustainable, integrated weed management strategies. This project will also involve close collaboration with USDA-ARS scientists specializing in plant physiology, molecular biology, genomics, and herbicide resistance to advance understanding of resistance mechanisms and support the development of novel weed management solutions for problematic weeds in Mississippi cropping systems. Through participation in this research project, the participant will gain experience managing growth chamber and greenhouse studies and establishing new experiments to investigate weed control, physiological responses, and herbicide resistance mechanisms.

Learning Objectives: Under the guidance of a mentor, the participant will: 1) Gain hands-on research experience in herbicide resistance across multiple weed species; 2) Learn to operate specialized equipment such as an herbicide track sprayer, leaf area meter, root scanner, and LI-COR photosynthesis systems; 3) Develop strong competencies in collecting, processing, and analyzing plant samples to characterize herbicide resistance mechanisms; and 4) Build robust data analysis skills and enhance scientific writing and publishing abilities.

Mentor(s): The mentor for this opportunity is Krishna Reddy (krishna.reddy@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 $65,000 annually.**

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.Southeast@orau.org and include the reference code for this opportunity.

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Qualifications The qualified candidate should be currently pursuing or have received a doctoral degree in the one of the relevant fields (e.g. Agricultural Sciences, Botany, etc.). Degree must have been received within the past five years, or anticipated to be received by August 15, 2026.

Preferred skills:

- Experience in greenhouse, field, and growth chamber research
- Knowledge of crop production systems of major crops/weeds
- Strong background in weed biology, herbicide resistance research, and field/greenhouse/growth chamber experimentation
- Experience with physiological measurement tools and spray chambers (e.g., LI-COR gas exchange systems, chlorophyll fluorometers, research track sprayers)

Stipend $65,000.00 Yearly

Point of Contact Sara Beth

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 8/15/2026 12:00:00 AM.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (14 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).