Opportunity Title: USDA-ARS Postdoctoral Fellowship in Plant Pathology & Aflatoxin Biocontrol
Opportunity Reference Code: USDA-ARS-PWA-2025-0167

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PWA-2025-0167

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.

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Application Deadline 2/13/2026 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), within the Pest Management and Biocontrol Unit of the Arid Land Agricultural Research Center located in Tucson, Arizona.

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 research goal of the lab is to develop, improve, optimize, and disseminate aflatoxin biocontrol technologies to growers. This is accomplished through a combination of laboratory and field studies aimed at understanding how biocontrol strains of Aspergillus flavus interact with aflatoxin-producing fungi under different biotic and abiotic conditions. The current project focuses on applied field research aimed at developing aflatoxin biocontrol application recommendations that will

increase the efficacy and minimize the long-term cost of biocontrol treatments in corn.

Learning Objectives: Through this fellowship, the successful applicant will gain valuable hands-on experience and develop expertise in laboratory and field research. The participant will have the opportunity to learn and enhance skills in the following areas:

- **Design and Implementation of Field Studies:** The fellow will learn how to design and implement large-scale field studies, specifically evaluating aflatoxin biocontrol treatments in commercial corn. This will include planning experiments, managing logistics, and ensuring data quality in applied agricultural research.
- **Crop and Soil Sample Collection and Analysis:** The participant will be trained in the collection, processing, and analysis of crop and soil samples using advanced microbiological, molecular biological, and chemical methods. They will learn to characterize fungal populations and quantify aflatoxin concentrations, gaining expertise in techniques critical to plant pathology research.
- **Statistical Analysis and Interpretation:** The fellow will develop skills in statistical analysis, learning to interpret results from field studies and draw meaningful conclusions to inform agricultural practices and research advancements.
- **Development of Aflatoxin Management Recommendations:** The participant will have the opportunity to apply their findings by contributing to the development of aflatoxin management recommendations for corn. This will include learning how to synthesize research results into actionable strategies for stakeholders.
- **Scientific Communication:** The fellow will gain experience in disseminating research findings through peer-reviewed journal articles, technical reports, and presentations at scientific and stakeholder meetings, building skills in professional communication and knowledge sharing.

Through these project opportunities, the fellow will expand their expertise in plant pathology, molecular biology, microbiology, experimental design, and statistical analysis. This comprehensive training will prepare the participant for future roles in agricultural research, environmental science, and related fields.

Mentor(s): The mentor for this opportunity is Hillary Mehl (hillary.mehl@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: As soon as possible. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but

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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 $70,000- $75,000 annually.

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) 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.PacificWest@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in a relevant field within the past five years.

Preferred Skills:

1. Advanced degree in plant pathology, microbiology, plant sciences, or a related discipline.
2. Desire and ability to conduct field research in agricultural settings.
3. Experience using statistical software such as SAS or R.
4. Experience in preparation of manuscripts for publication in peer-reviewed journals.

Stipend

$70,000.00 – $75,000.00 Yearly

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (51 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).