

Opportunity Title: USDA-ARS Postdoctoral Research Fellowship in Entomology

Opportunity Reference Code: USDA-ARS-SEA-2026-0123

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2026-0123

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 8/14/2026 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), Southern Insect Management 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: The assigned research project will focus on developing integrated and sustainable approaches for monitoring and managing the two-spotted cotton leafhopper, aka cotton jassids (*Ammasca biguttulla* Ishida), in the Southeastern United States. This research is a component of USDA-ARS National Program 304 (Crop Protection & Quarantine). The postdoctoral fellow will conduct ecological, behavioral, and applied research on pests of various row crops, including cotton,

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soybeans, corn, and sweet potatoes. The successful candidate will help with establishing a research program to understand the biology, ecology, behavior, and host preferences of cotton jassids. The participant will investigate the cotton jassid's chemical ecology and develop monitoring tools and attract-and-kill strategies based on its visual cues, attractants, pheromones, and trap crops. The participant will study the impact of agronomic and cultural practices on the development, population dynamics, and distribution of cotton jassids. Alongside the mentor, the candidate will evaluate the impact of irrigation and drought on cotton jassid development, survival, and distribution; examine the effect of non-chemical control strategies using kaolin clay particle films on jassid establishment, oviposition, host selection, and host-switching dynamics; study the effect of micronutrients and biostimulants to impart host plant resistance and reduce crop damage and yield. Also, the participant will collaborate with plant breeders to screen host plant resistance mechanisms of different cotton cultivars to cotton jassids using cotton varietal trials and bioassays; evaluate antibiosis, antixenosis, and tolerance types of host plant resistance exhibited by these cotton cultivars, and characterize the feeding behavior of cotton jassids using electrical penetration graph (EPG) technology. The candidate will perform laboratory, greenhouse, and field studies, and to establish experiments to test different pest management strategies.

Learning Objectives: The candidate will be able to collaborate and learn with multi-disciplinary researchers from different universities as part of collaborative research projects. Establishing collaborations with agronomists, plant breeders, biologists, entomologists, and soil scientists will help the postdoc to train and grow as an expert in the field, and as a future scientist. Under the guidance of a mentor, the participant will:

- Develop expertise in designing and conducting experiments in laboratory, greenhouse, and field settings for monitoring and managing row crop pests, especially cotton jassids in Mississippi cropping systems supporting all stakeholders.
- Acquire skills in collecting, processing, and analyzing insect samples, including characterizing insect feeding and developmental biology using behavioral, physiological, and chemical ecological approaches.
- Build proficiency in operating and maintaining laboratory instrumentation such as electrical penetration graph, gas chromatograph coupled electroantennogram (GC-EAD), spectrophotometers, and other equipment essential for behavioral and physiological studies, and data collection.
- Gain writing and communication skills through publications and presentations of research findings.

Mentor(s): The mentor for this opportunity is Justin George (justin.george@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: April 15, 2026. Start date is flexible

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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 \$74,678 - \$97,087 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@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields (Entomology or a related field). Degree must have been received within the past five years.

Preferred skills:

- Candidates with experience in laboratory, greenhouse, and field research will be given preference.
- Demonstrated ability to collaborate in diverse and interdisciplinary teams.
- Evidence of ability to conduct independent and collaborative research.
- Demonstrated ability to publish research findings in peer-reviewed journals.
- Knowledge of insect biology, behavior, and chemical ecology.
- Hands-on experience in performing behavioral, chemical ecological, and toxicological bioassays, plant volatile collections, electrical penetration graph recordings, host plant resistance studies.
- Competency in developing integrated pest management approaches against cotton jassids and other row crop pests.
- Experience in interacting and exchanging knowledge with agricultural research groups.
- Excellent communication and interpersonal skills, writing skills, and

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statistical skills.

- Strong statistical skills with R, SAS, or other statistical programs.

Stipend \$74,678.00 – \$97,087.00 Yearly

Point of Contact [Janeen](#)

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

Requirements • **Degree:** Doctoral Degree received within the last 60 month(s).

• **Discipline(s):**

◦ **Chemistry and Materials Sciences** ([1](#))

◦ **Life Health and Medical Sciences** ([9](#))

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