

Opportunity Title: USDA-ARS Experimental and Computational Agricultural Application Engineering Fellowship
Opportunity Reference Code: USDA-ARS-PA-2026-0313

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PA-2026-0313

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 10/9/2026 3:00:00 PM Eastern Time Zone

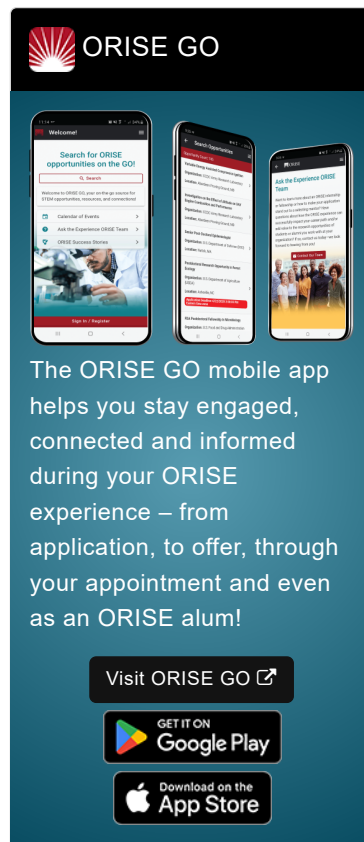
Description *Applications are reviewed on a rolling-basis.

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 College Station, Texas.

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.

The USDA Agricultural Research Service (ARS) Aerial Application Technology Research Unit conducts research to improve the safety, efficiency, effectiveness, and environmental sustainability of agricultural application systems, including aerial and ground-based equipment used to accurately and efficiently deliver crop protection products and other agricultural inputs. Research integrates agricultural engineering, physical sciences, and computational approaches to advance the understanding of atomization, spray transport, deposition, application system performance, and the measurement and modeling technologies that support these systems.

Research Project: Under the guidance of a mentor, you will have the



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opportunity to be involved in research investigating the engineering principles governing agricultural application systems. Research may include experimental and computational studies examining atomization, droplet formation, spray transport, deposition, nozzle performance, and the influence of physicochemical properties of agricultural spray formulations on application performance. Depending on the needs of the research project, research may also incorporate advanced optical diagnostics, quantitative image analysis, computational modeling, and remote sensing technologies to improve understanding, evaluation, and prediction of agricultural application system performance.

You may participate in laboratory, wind tunnel, field, and computational investigations designed to improve understanding of agricultural application systems. Activities may include collecting and analyzing experimental data; utilizing advanced optical diagnostic methods, high-speed imaging systems, and engineering instrumentation to characterize atomization, droplet formation, and transport processes; applying quantitative image analysis and scientific programming techniques; comparing experimental observations with computational models; and collaborating with ARS scientists to interpret research findings and explore engineering approaches for improving agricultural application technologies.

Learning Objectives: During this appointment, you will have the opportunity to develop knowledge and experience in:

- Engineering principles governing agricultural application systems.
- Atomization, droplet transport, and deposition processes.
- Experimental methods used to characterize agricultural application systems.
- Advanced optical diagnostics, high-speed imaging, and quantitative image analysis.
- Integration of experimental measurements with computational modeling and engineering analysis.
- Scientific programming and quantitative analysis of engineering data.
- Application of remote sensing technologies to agricultural engineering research.
- Scientific communication through technical presentations and scientific publications.

Mentor(s): The mentor for this opportunity is

Brad Fritz (brad.fritz@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: October 2026 or 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 may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

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

Qualifications The qualified candidate should be currently pursuing or have received a master's degree in the one of the relevant fields. Degree should have been received within the past one year or anticipated to be received by 8/31/2027.

Stipend \$60,000.00 – \$65,000.00 Yearly

Point of Contact [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Master's Degree received within the last 12 months or currently pursuing.
 - **Discipline(s):**
 - **Engineering** ([6](#) )