

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Commodity Utilization

Research

Opportunity Reference Code: USDA-ARS-SEA-2026-0291

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-SEA-2026-0291

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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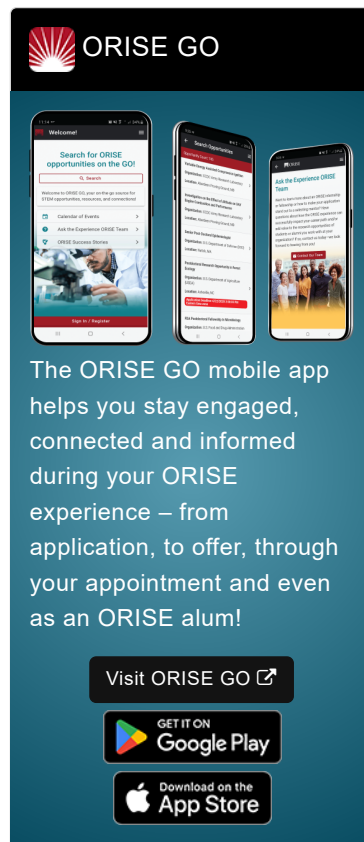
Application Deadline 9/25/2026 3:00:00 PM Eastern Time Zone

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 New Orleans, Louisiana.

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: Under the guidance of mentor, you will engage in research focused on analysis of cottonseed oils and bio-based products relevant to cottonseed. The research will utilize laboratory-based conventional organic chemistry and materials science techniques to design, synthesize, develop and test novel products derived from cotton biomass, and develop chemical modifications of cottonseed components for production of bio-based products. The research will also include analysis of cottonseed processing products (cottonseed oil, protein, meal and hull), including raw and refined oils, resulting from experimental projects to



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improve product quality and support new uses for cottonseed.

You will be a part of and gain training in a collaborative, multi-disciplinary research program incorporating chemical, biochemical, and engineering analyses aimed at development of novel biobased marketable goods from cottonseed processing co-products.

Learning Objectives: You will collaborate in a research team that includes chemists, a plant geneticist, and plant physiologist. When completed, you will have a thorough understanding of cottonseed processing techniques, and sustainable materials development, with opportunities to present research findings to stakeholders and academic conferences. This experience will provide hands-on learning in a multidisciplinary team environment and exposure to research objectives aimed at solving challenges related to cottonseed processing and development of value-added biobased products. You will develop and implement skills utilizing organic chemistry, materials science, and technical competencies in advanced sample-preparation workflows and analytical techniques.

Learning objectives include:

1. Fractionation and purification of biomass into isolatable compounds for downstream development into products.
2. Data organization and data management skills.
3. Utilizing analytical instrumentation to support characterization of chemical modifications to solid materials, oils, and heterogeneous product mixtures.
4. Understanding biological and chemical aspects of cottonseed composition, processing, and utilization including oils, proteins, lignocellulose biomass, and extractables.
5. Developing scientific communication skills through contributions to presentations and manuscripts suitable for publication.

Mentor(s): The mentor for this opportunity is Jacobs Jordan (jacobs.jordan@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 is \$6,223.17 monthly.**

Citizenship Requirements: This opportunity is available to U.S. citizens only.

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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.

Qualifications The qualified candidate should be currently pursuing or have received a doctoral degree in the one of the relevant fields (e.g. Chemistry, Materials Science, Agricultural or Chemical Engineering or closely related field). Degree must have been received within the past five years, or anticipated to be received by 9/1/2026.

Preferred skills:

- Experience with synthetic organic chemistry, including chemical transformations, separations, purifications, and structural and chemical analysis, using MS and NMR.
- Experience and/or thorough understanding of the principals of quantitative analysis and/or analytical chemistry.
- Experience in analysis of carbohydrates, and/or fatty acids using techniques including HPLC, FTIR, and viscometry.
- Proficient with Microsoft Office Software.
- Experience in multidisciplinary research teams, excellent communication skills, and a creative, solution-oriented approach to troubleshooting analytical challenges are highly desirable.
- Familiarity with data science and machine learning applications for analytical chemistry, industrial/agricultural facilities, and techno-economic or life-cycle analysis is considered a plus.
- Experience with protein samples including quantification, analysis by SDS-PAGE and gel staining, chromatography or protein purification is a plus.

Stipend \$6,223.17 Monthly

Point of Contact [Sara Beth](#)

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

Requirements • **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 9/1/2026 12:00:00 AM.

- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )

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- **Engineering** ([5](#) 👁)
- **Science & Engineering-related** ([1](#) 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).