

**Opportunity Title:** USDA-ARS Postdoctoral Fellowship in Improving Fruit

Quality and Safety

**Opportunity Reference Code:** USDA-ARS-2022-0118

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-2022-0118

**How to Apply** *Connect with **ORISE...on the GO!*** Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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. All transcripts must be in English or include an official English translation. 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.

**Application Deadline** 5/8/2022 3:00:00 PM Eastern Time Zone

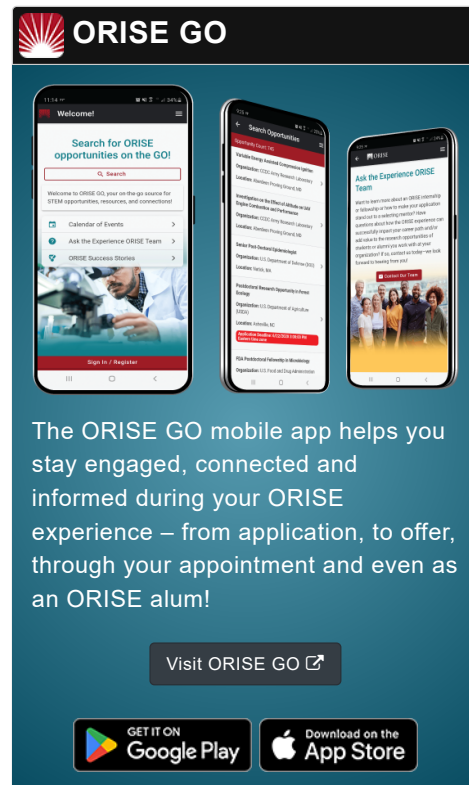
**Description** \*Applications will be reviewed on a rolling-basis, and this posting could close before the deadline.

**ARS Office/Lab and Location:** A postdoctoral fellowship is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Tropical Crop and Commodity Protection Research Unit located in Hilo, Hawaii.

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 mission of the Tropical Crop and Commodity Protection Research Unit is to develop pre- and postharvest technologies and management strategies for invasive pests, to open and maintain market access, and to improve the quality of tropical fruit, vegetable, and ornamental crops grown in the Pacific Basin. Unit research is oriented toward maintaining the biosecurity of the contiguous US by designing and validating methods to prevent the introduction of tropical pests.

**Research Project:** The fellow will participate in the design and execution of nanoemulsion/nanoencapsulation aimed at



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improving the safety, quality, and shelf life of tropical fruit. Specific activities will include experimental design, data collection and analysis, and presentation of results to a variety of audiences.

**Learning Objectives:** Additionally, the fellow will have the opportunity to interact with stakeholders and those responsible for programs related to invasive pest control. This opportunity will provide exposure and practice with emulsification, encapsulation, and microbiological enumeration.

**Mentor(s):** The mentor for this opportunity is Xiuxiu Sun ([xiuxiu.sun@usda.gov](mailto:xiuxiu.sun@usda.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date:** As soon as a qualified candidate is identified. 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.

**Citizenship Requirements:** This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

**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 [USDA-ARS@orau.org](mailto:USDA-ARS@orau.org) and include the reference code for this opportunity.

## Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields, or be currently pursuing the degree with completion by the end of May 2022.

Preferred skills:

- Experience in nanoemulsion/nanoencapsulation
- Background in food technology

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- Knowledge of postharvest preservation
- Strong background in statistics and data analysis
- Strong interpersonal skills
- Excellent written and oral communication

**Eligibility  
Requirements**

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Engineering** (6 👁)
  - **Life Health and Medical Sciences** (15 👁)
  - **Mathematics and Statistics** (4 👁)
  - **Science & Engineering-related** (1 👁)