

**Opportunity Title:** USDA-ARS Biological Sciences Internship

**Opportunity Reference Code:** USDA-ARS-2021-0184

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

**Reference Code** USDA-ARS-2021-0184

**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
- Transcripts – [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** 12/1/2021 3:00:00 PM Eastern Time Zone

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

**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 Parlier, California.

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 the agency is to provide global leadership in agricultural discoveries through scientific excellence.

**Research Project:** The proposed project will be centered around use of sterile insect technique and mating disruption as part of an area-wide pest management program for navel orangeworm, an important moth pest of tree nuts. General objectives will be to use laboratory and field assays to quantify and improve the performance of locally-reared non-sterile and sterile moths, and to conduct mark-release-recapture assays in cooperator fields using sterile moths.

The day-to-day activities associated with this project will include: moth rearing procedures (as they relate to effect on competitiveness following sterilization), conducting flight tunnel and other laboratory tests of survivorship and performance, setting up and monitoring field traps for mark-release-recapture, preparing mating disruption treatments, and data collection and analysis.

**Learning Objectives:** Upon completion, the selected participant will have gained a deeper understanding of principles of sterile insect technique (SIT), how they might interact with other pest management techniques in tree nut integrated pest management (IPM). A greater understanding of research and development of monitoring and semiochemical control of key pests is a part of this project.

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

**Anticipated Appointment Start Date:** 2021. 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 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 [USDA-ARS@ornl.gov](mailto:USDA-ARS@ornl.gov) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have an educational background in agricultural or biological sciences. Applicants should hold or be studying for a bachelor's degree.

The ideal candidate will hold a bachelor's degree or will hold or be actively pursuing a master's degree in agriculture or biology; with training or a demonstrated interest in agricultural pest management.

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
  - **Degree:** Bachelor's Degree or Master's Degree.
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([12](#))
    - **Earth and Geosciences** ([1](#))
    - **Engineering** ([1](#))
    - **Environmental and Marine Sciences** ([14](#))
    - **Life Health and Medical Sciences** ([46](#))
    - **Science & Engineering-related** ([1](#))