

**Opportunity Title:** USDA-ARS Sustainability of Irrigated Agriculture Internship

**Opportunity Reference Code:** USDA-ARS-2021-0011

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

**Reference Code** USDA-ARS-2021-0011

**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** 3/26/2021 3:00:00 PM Eastern Time Zone

**Description** \*Applications may be 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), Sustainable Water Management Research Unit located in Stoneville, Mississippi.

**Research Project:** Throughout the course of this research project, the participant will collaborate with a USDA-ARS scientist in research programs focused, in general, on enhancing the sustainability of irrigated agriculture in the Lower Mississippi River Basin (LMRB) in Mississippi. Under the guidance of a mentor, the participant will be involved in the following activities:

1. The participant will collaborate in conducting experiments in the field, greenhouse, and growth-chambers investigating the impacts of soil amendments and tillage and water-crop management on soil physical, chemical, biological, and hydraulic properties for managing soil nutrients and water availability in various row-crop systems in the LMRB.
2. The participant will assist scientists in maintaining, calibrating, and modifying equipment and automated systems, such as eddy covariance towers and soil moisture sensors, used for soil-water-crop-environmental evaluation procedures; assist in the periodic downloading of data from field instrumentation, updating data logger programming, and maintaining sensor calibrations using portable computers; facilitate data communication between field instrumentation and work computers; and clean and maintain optical sensors for crop canopy data collection, analysis, and interpretation using personal computers and software packages.

**Learning Objectives:**

1. Become familiar with eddy covariance tower sensor components, maintenance, and data collection procedures.
2. Develop skills for eddy covariance tower data collection, analysis, and interpretation for local, regional, and national partners.



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

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

**Qualifications** The qualified candidate should have received a bachelor's or master's degree in one of the relevant fields.

Skills in eddy covariance or weather monitoring; data loggers; data communications and programming would be considered favorable.

- Eligibility Requirements**

- **Degree:** Bachelor's Degree or Master's Degree.
  - **Discipline(s):**
    - **Earth and Geosciences** ([1](#) )
    - **Engineering** ([3](#) )
    - **Environmental and Marine Sciences** ([2](#) )
    - **Life Health and Medical Sciences** ([3](#) )