

**Opportunity Title:** Postdoctoral Research Opportunity – Crop Physiology

**Opportunity Reference Code:** ARS-GCPRU-2015-0132

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

**Reference Code** ARS-GCPRU-2015-0132

**How to Apply** A complete application package 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation.
- A current resume/CV

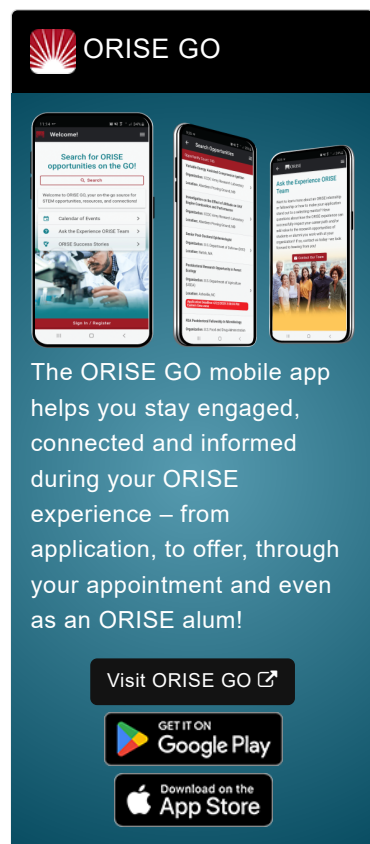
If you have questions, send an email to [USDA-ARS@orau.org](mailto:USDA-ARS@orau.org). Please include the reference code for this opportunity in your email.

**Description** A crop physiology postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Global Change and Photosynthesis Research Unit (GCPRU) in Urbana, IL.

The part time postdoctoral position is to conduct research investigating sink strength. The central research approach is grow tobacco plants at ambient and elevated [CO<sub>2</sub>] at the SoyFACE Global Change Research Facility located in Urbana, IL. Measurements of the impact of elevated [CO<sub>2</sub>] of photosynthesis, solar energy conversion efficiency, above ground biomass and partitioning of that biomass into vegetative and reproductive structures will be made at intervals throughout the growing season to analyze sink strength in tobacco. The incumbent will also contribute as member of multi-laboratory team with the overall goal of developing a computational engineering framework for selecting systems and synthetic approaches to increasing crop net photosynthesis, practical engineering of the selected changes, and molecular, biochemical and whole crop physiological phenotyping in the laboratory and field.

The appointment is part-time for ten months and may be renewed based upon recommendation of the ARS and availability of funding. The selected applicant will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by ARS officials, and are based on the applicant's academic and professional background. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. The participant will not enter into an employee/employer relationship with ORISE, ORAU, USDA, ARS, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

While participants will not enter into an employment relationship with ARS,



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this position requires a pre-employment check and a full background investigation.


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.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, religion, sex, sexual orientation, gender identity, national origin, mental or physical disability, covered veteran's status or genetic information.

For more information about the ARS Research Participation Program, please visit the [Program Website](#).

**Qualifications** To be eligible, applicants must have received a doctorate degree in crop/plant physiology within five years of the desired starting date. Peer reviewed published work utilizing this expertise is also required. Demonstrated background in photosynthesis and global change research is highly desirable. Good oral and written communication skills coupled with the ability to work independently and cooperatively are required. Also required is a strong knowledge and experience in photosynthetic gas exchange and field work. Demonstrated knowledge of photosynthesis, leaf gas exchange theory and modeling is highly desirable. Skills and knowledge of plant and soil water relations desirable.

- Eligibility Requirements**

- **Degree:** Doctoral Degree.
  - **Academic Level(s):** Postdoctoral.
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([4](#) )