Opportunity Title: Postdoctoral Research Opportunity in Plant Ecology
Opportunity Reference Code: USDA-ARS-2019-0041

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2019-0041

How to Apply 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.

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

Application Deadline 5/29/2019 3:00:00 PM Eastern Time Zone

Description A research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Global Change and Photosynthesis Research Unit located in Urbana, Illinois.

The aim of the project is to elucidate weed/crop biology and ecology in cropping systems to understand mechanisms driving risk and forecast the consequences of variability and global change on cropping systems. Specific objectives include: 1) determine how crop management practices and abiotic factors affect the ecology of weeds and agronomic crops at multiple spatial scales, 2) how analyses and forecasts can be generalized to provide guidance on the mitigation of risks for a diverse range of cropping systems and locations, and 3) deployment of visualizations for dissemination and outreach of key findings to stakeholders. The selected candidate will emphasize the use of mathematical and statistical models to synthesize empirical results and provide insights from observational data in order to guide the design of future experiments and analyses.

Under the guidance of a mentor, the participant's learning objectives are to 1) develop analytical tools, and analyses for researching crop and weed ecology essential to the development of novel weed management tactics, and 2) contribute towards development of agronomic systems which are sustainable, profitable, and resilient to climate change as well as other risks imposed by weather, financial, and biological variability.

The selected candidate will participate in and present research at ARS unit meetings.
The participant will also have opportunities to participate in outreach through interactions with the University of Illinois, Department of Crop Sciences.

Anticipated Appointment Start Date: June 2019

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. The initial appointment is for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience, and a health insurance allowance. Proof of health insurance is required for participation in this program. The appointment is full-time at ARS in the Urbana, Illinois, area. Participants do not become employees of USDA, ARS, DOE or the program administrator, and

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there are no employment-related benefits.

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.

For more information about the ARS Research Participation Program, please visit the **Program Website**.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields, with expertise in statistical analyses.

Preferred skills/experience:

- Prior experience with modeling of plant-based systems, risk assessment of global change, or emerging statistical technology
- Strong oral and written communication skills

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (3 👁)
  - **Mathematics and Statistics** (1 👁)