

PhD Graduate Assistantship Available

Modeling of mixed cover crops and cropping system analysis

University of Kentucky, Department of Plant & Soil Sciences

The Agroecosystem Nutrient Cycling Laboratory (www.poffenbargerlab.com) and the Grain Crops Physiology Laboratory (www.salmeronlab.weebly.com) in the Department of Plant and Soil Sciences at The University of Kentucky are seeking an enthusiastic and motivated PhD student. The student will integrate field research and crop modeling to study the effects of cover crops on nitrogen cycling, water dynamics, and yield stability in agroecosystems. In particular, the student will use existing field experimental data to test a new intercropping module for cover crop mixtures in DSSAT working in collaboration with University of Florida. The student will perform simulation studies to optimize cover crop mixtures for nitrogen and water dynamics in cropping systems. They will work on an interdisciplinary team that includes soil scientists, crop ecologists, crop modelers, and programmers as part of a USDA-funded project.

QUALIFICATIONS: The ideal candidate will have a B.S. or M.S. degree in agronomy, soil science, crop science, ecology, biogeochemistry, environmental science, or a related field and experience working in a research setting. Strong organizational, quantitative, and communication skills are required. Some experience with DSSAT or another crop modeling software is required. The candidate will complete coursework necessary for a PhD in Integrated Plant and Soil Sciences with an agreed upon emphasis area of their choosing (please see <https://ipss.ca.uky.edu/> for more information).

The **LOCATION:** The University of Kentucky is situated in Lexington Kentucky, a vibrant and progressive, family-friendly city with a bustling entertainment scene conveniently situated in the Inner Bluegrass region of Kentucky just 80 miles from Louisville and Cincinnati and a short drive to the world-renowned Red River Gorge and Daniel Boone National Forest. Lexington airport is well connected with daily flights to several major hubs (Atlanta, Chicago, Detroit, Dallas, Washington, Philadelphia) making travel to any national or international destination simple.

To **APPLY:** Application process will remain open until a suitable candidate is identified. The assistantship includes a generous stipend, tuition waiver, and health insurance. Candidates interested in this exciting opportunity should complete this form: <https://forms.gle/iHXv5EfQbMHxb7xs8> or email their cover letter, CV, and transcripts to:

Dr. Hanna Poffenbarger
Assistant Professor of Soil Nutrient Management
Department of Plant and Soil Sciences
University of Kentucky
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Applications and inquiries from women and minorities are particularly encouraged. The University of Kentucky is an Equal Opportunity Employer. Applications will be accepted without regard to race, color, age, sex, religion, disability, or national origin. The address of the College of Agriculture EEO Coordinator is room S-101 Agricultural Science Building, 500 S. Limestone, Lexington, KY 40546-0091.