

GRADUATE RESEARCH ASSISTANTSHIP (PH.D.) IN SOIL SCIENCE

Dynamics of Soil State Variables and Related Processes Across a Land Use Gradient in Spatial and Temporal Transition

A graduate research assistantship position (Ph.D. level) is available currently (fall 2008 or thereafter) in the Department of Plant and Soil Sciences at the University of Kentucky. This position is being funded through a USDA-NRI grant. The objective of the project is to assess the impacts of land use system and management on soil water, carbon and nitrogen dynamics in the vadose zone. We are particularly interested in how alterations in soil structure, resulting from changes in land use, impact water balance, soil aggregate distribution, hydrophysical properties, soil-atmosphere gas exchange, and carbon and nitrogen cycling. Understanding processes during transitions of land use in time and space is of crucial importance with respect to long-term land use planning and its impact on environmental quality. The purpose of this project is to monitor relevant soil physical, chemical, and ecological processes including vegetation in two established land use systems (agricultural cropland and pasture) over one year, followed by a study of the same processes during transition from pasture to agricultural cropland and cropland to pasture and to model the measured variables using spatial and temporal statistical methods.

We are interested in recruiting a graduate student who will conduct experiments in the field and laboratory, and who will analyze data using state-of-the-art statistical methods and computer simulation models of soil water, carbon, nitrogen and plant biomass dynamics. The candidate will receive salary and health insurance for three years and tuition will be paid. Interested individuals who have a M.S. degree in soil science, hydrology, agronomy or a related science should contact Dr. Ole Wendroth (owendroth@uky.edu). If offered this position, the candidate will be required to undergo a pre-employment national background check as mandated by University of Kentucky Human Resources.

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. Applications and inquiries from women and minorities are particularly encouraged. The address of the College of Agriculture EEO Coordinator is Room S-101 Agricultural Science Center North, Lexington, KY 40546-0091.