

Ph.D. Graduate Research Assistantship Available

Rhizosphere processes influencing organic P cycling

University of Kentucky, Department of Plant & Soil Sciences

The **RESEARCH:** The Rhizosphere Science Laboratory (www.rhizolab.com) in the Department of Plant and Soil Science at The University of Kentucky is seeking a highly motivated PhD student to work on a USDA-AFRI funded project investigating the physical and biogeochemical processes affecting the cycling and availability of organic phosphorus (P_o) in managed agroecosystems. The study will integrate advanced analytical (e.g. NMR, oxygen isotope ($\delta^{18}O_p$)), and molecular genetic techniques (e.g. high-throughput DNA sequencing), with classical soil chemical methods (e.g. chemical P fractionation, SOM characterization) to develop a better understanding of the fate of P_o from the root system of a preceding cover crop. Working together with a collaborative and supportive interdisciplinary team of scientists, the PhD candidate will be specifically tasked with investigating root system architecture and turnover, soil organic matter dynamics, and rhizosphere microbial community structure and function using the newly funded UK agroecosystem mesocosm facility.

QUALIFICATIONS: The ideal candidate will have a degree in soil science, soil chemistry, soil microbiology or related field preferably with experience in traditional and next generation microbiological techniques (e.g. Illumina MiSeq). Strong organizational, quantitative, and communication skills are required. The candidate will complete coursework necessary for a Doctor of Philosophy degree in Integrated Plant and Soil Sciences with an agreed upon emphasis area of their choosing (please see <https://pss.ca.uky.edu/ipss> 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 deadline is August 1, 2016 but 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 send their CV, a cover letter describing their relevant experience and interest in the position, GRE and TOEFL (international students) scores, and transcripts via email to:

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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.