



**DEPARTMENT OF PLANT SCIENCES**

College of Agricultural  
and Life Sciences  
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## Two Ph.D. Assistantships

Two Ph.D. assistantships are available in the Cropping Systems Agronomy Program and the Soil Biogeochemistry Program to investigate pea-cereal intercropping systems for transitioning conventional to organic systems. The successful applicants will join an interdisciplinary project investigating crop physiology, irrigation management, soil health, and agricultural economics. One research assistant will work on belowground plant-soil interactions including 1) characterizing root distributions, 2) quantifying microbial diversity, and 3) measuring greenhouse gas efflux (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O). The other assistant will focus on 1) crop model (e.g., DSSAT) calibration and evaluation, 2) soil carbon model (e.g., DSSAT-CENTURY and DAYCENT) calibration and evaluation based on the current field experiment and other intercropping projects, and 3) performance comparisons between different models and/or predictions of crop production and soil carbon in different environments and/or in response to different climate change scenarios.

A Bachelor's degree is required in Crop Science, Agronomy, Biology, Soil Science, or relevant fields. A Master's degree in Crop Science, Agronomy, Plant Biology, Soil Science, or related areas is preferred. Demonstrated written and oral skills are essential, and previous experience working in field experiments is desired. For these positions, the candidate needs to meet the requirements to be accepted in the Graduate Student Program in the Department of Plant Sciences and the Department of Soil and Water Systems, University of Idaho. The expected starting date is summer 2022. The assistantships include a tuition waiver, health insurance, and an annual stipend of \$22,000.

Candidates interested in these opportunities should specify which position they are interested in by **including either “belowground plant-soil interactions” or “modeling” in the email subject** and send their CV, GRE and TOEFL/IELTS/Duolingo (international students) scores, and academic transcripts (unofficial) to the corresponding contacts:

**Dr. Xi Liang (modeling)**  
Associate Professor of Cropping Systems Agronomy  
Department of Plant Sciences  
University of Idaho  
Email: [xliang@uidaho.edu](mailto:xliang@uidaho.edu)

**Dr. Zachary Kayler (belowground plant-soil interactions)**  
Assistant Professor of Soil Biogeochemistry  
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