



Graduate student research assistantship: Optimizing soil microbe-plant interactions for improved agricultural resilience the University of Florida

An exciting opportunity is available for a Ph.D. research assistantship in the Soil, Water, and Ecosystem Sciences Department to explore methods to alter the soil environment to enhance soil microbe-plant interactions to improve the resiliency of agricultural production systems. Examples include examining the microbial ecology and/or use of plant growth promoting bacteria and genotype-environment interactions for rhizobacteria and crops using combinations of culture-based and culture-independent methods (qPCR, amplicon sequencing, metagenomics, transcriptomics, etc.). Production systems could include citrus and vegetable production, and methods to alter the soil environment include cover crops, compost, fumigation, and combinations of these practices. Research of these topics is funded by federal grants.

Qualifications: A master's degree in microbiology, soil science, plant biology, or a related discipline from an accredited institution, plus research experience, is preferred. Candidates with experience in microbial ecology, amplicon sequencing, R packages, and/or bioinformatics, as well as first author on at least one peer-reviewed paper in a peer-reviewed journal is also preferred. The student is expected to work in the laboratory as well as in the greenhouse and field with periods of work under hot and humid conditions. A driver's license is required.

The graduate assistantship position is fully supported for 4 years and includes full tuition coverage, 12-month stipend, and health insurance. This position is based at the UF/IFAS Southwest Florida Research and Education Center in Immokalee, FL, located in the heart of Florida citrus production and a short drive from the beautiful beaches of Fort Myers and Naples, FL. Visit the Department (<http://soils.ifas.ufl.edu>) and SWFREC (swfrec.ifas.ufl.edu) webpages for additional information. The position begins in August 2025. Interested candidates should contact Dr. Sarah Strauss (strauss@ufl.edu) directly with a CV, one-page letter of research experience and interests, and the names of three references. Letters are not necessary at this stage, please just provide the names and email addresses of three references. Review of applicants will begin on December 16, 2024.