Environmental Sciences Department
College of Natural and Agricultural Sciences
University of California, Riverside

Soil Biogeochemistry Postdoctoral researcher in agricultural soil carbon dynamics

The Department of Environmental Sciences at the University of California invites applicants for 1 full-time/part-time Postdoc position to conduct applied research for the Samantha Ying Lab in Riverside, CA. This position will start on June 1st, 2022. The purpose of this position is to study soil carbon and nitrogen dynamics associated with agri-food waste by-products amendment to soil/soil mixes under greenhouse and field conditions. The final candidate will investigate soil/soil mixes carbon & nitrogen dynamics associated with waste by-product amendment to soil mixes and to soil under greenhouse and under field conditions respectively. The overall objective of the project is to develop easily deployable mitigation strategies, for nursery growers and farmers, that integrate the management of soil carbon dynamics, favor beneficial soil and root microbiota, and create alternative disposal for agricultural waste.

A key component of this research project is understanding the short and long-term soil carbon and nitrogen content dynamic associated with agri-food waste by-products and how they improve soil organic matter content, increase soil C, N, and other nutrients, and how those changes relate to soil and root microbiome. The successful candidate will be expected to utilize archived soil samples and data from an on-going study consisting of several greenhouse and 1 field experiment; assist with the continuing collection and analysis of soil samples from these sites; and design and implement new experiments to better understand soil carbon dynamics associated with agri-food waste by-products, plant growth (mainly citrus) and development.

Required qualifications for this position that must be met by the **date of application** include: a Ph.D. in natural sciences or a related field.

Preferred qualifications for this position include: Priority will be given to those candidates with a background in soil science, particularly experience with research in soil carbon dynamics in either natural or agricultural systems, have demonstrated experience in field and laboratory research, and preferably are familiar with citrus production in greenhouse and field settings. The position is fully funded for one year.

Additional specific qualifications for this position that must be met by the **date of hire** include:

1. Have had experience performing the following analyses and measurements: Water extractable organic carbon (WEOC), microbial biomass carbon (MB), total carbon-C and nitrogen-N, soil CO_2 flux, discrete analyzer for ammonium, nitrate, and phosphate, interpreting results from ICP-OES.
2. Have a strong interest in understanding the interrelations between waste by-products, carbon dynamic and soil and plant microbiome within different temporal and spatial scales (i.e., from seed germinations in micro-pots in indoor environments to field operations).
3. Have previous experience working and coordinating within interdisciplinary research groups.
4. Have excellent communication skills in English (spoken and written) and hold a valid driver's license to drive to field sites.

5. Not required but a strong or growing publication record is highly desirable.
6. Skills in monitoring GHG emissions, water cycle, remote sensing and computer programming would be a plus.

To apply: Submit a cover letter, a comprehensive CV that includes laboratory skills, a writing sample, and names of 3 references to Sam Ying (samying@ucr.edu). Application review will begin May 24th and continue until the position is filled.

For more information about this position, please contact Sam Ying, Department of Environmental Sciences, at samying@ucr.edu and Deborah Pagliaccia at deborahp@ucr.edu.

UCR is a world-class research university with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by law.

University of California COVID-19 Vaccination Program Policy: As a condition of employment, you will be required to comply with the University of California SARS-CoV-2 (COVID-19) Vaccination Program Policy. All Covered Individuals under the policy must provide proof of Full Vaccination or, if applicable, submit a request for Exception (based on Medical Exemption, Disability, and/or Religious Objection) or Deferral (based on pregnancy) no later than the applicable deadline. Please refer to Appendix F, Section II.C. of the policy for the deadlines applicable to new University of California employees. (Capitalized terms in this paragraph are defined in the policy.) Federal, state, or local public health directives may impose additional requirements.