Greenhouse Gas Emissions Research Program - Undergraduate Field Technician

Undergraduate Summer Research Student Position Announcement in the
Applied Soil Ecology Laboratory of the Department of Soil Science, University of Manitoba, Canada

The Applied Soil Ecology Lab, based out of the Department of Soil Science, University of Manitoba and under the leadership of Dr. Mario Tenuta, has highly productive and impactful research programs with several important foci: soil ecology, nematology, plant disease, greenhouse gas emissions, and 4R nutrient management. Please see www.soilecology.ca for more information on the Applied Soil Ecology Lab, including its personnel, projects, facilities, and a photo gallery.

The Greenhouse Gas Research Program studies the relationship between nutrient management and greenhouse gas emissions, with the goal of improving fertilizer use best management practices to reduce emissions from soil and animal manures. Projects include studying the effect of cover crops on emissions, cattle diet on manure properties and emissions, and fertilizer placement, timing of application, and/or fertilizer type on emissions.

Job Description

Qualifications: Enrolled in an undergraduate Agroecology, Agronomy, Biology, Engineering, Environment, Physical Geography, or Soil Science program, or a related field (preference given to those in senior years with excellent academic achievement); highly motivated; organized; able to follow complex instructions and pay attention to detail; good critical thinking skills; can work independently and in a group; excellent verbal and written communication skills; prepared for manual labour and strenuous outdoor activity over rough terrain; able to lift and carry 20kg; able to sit or stand for long periods; good manual dexterity; valid Manitoba Driver's license. Enjoys working outdoors and previous farm/field experience is an asset.

Duties and responsibilities: Outdoor duties: assist graduate students and Senior Technicians in small scale research field plot maintenance; collect soil, manure, plant and greenhouse gas samples; measure spectral reflectance from crops; adhere to biosecurity protocols. Indoor duties: preparation of gas storage vials; soil grinding and extraction; plant threshing and grinding; proper documentation of soil, plant, and greenhouse gas samples; maintaining field equipment. Other duties as required. Successful applicant reports daily to the Gas or General Lab Director.

Skills and benefits you may gain from this position: Methods for analysis of various greenhouse gases; determination of greenhouse gas fluxes using chambers; soil sampling, plant sampling / preparation for analysis; trouble shooting techniques and working in teams; introduction to the set up and maintenance of small-scale agricultural research plots.

Supervisor: Professor Mario Tenuta, Applied Soil Ecology Lab, Department of Soil Science, Faculty of Agricultural and Food Sciences

Job Terms

Number of Jobs: TBD
Job dates: May 1 through August 30, 2024
Hours per week: 35
Salary: Faculty pay scale dependent on program year
Location: Ellis Bldg, UM and frequent day trips to rural field sites
Other info: Transportation vehicle provided

How to Apply

Applications accepted from: January 3 to 24, 2024
Required application materials: (1) Cover letter including a statement indicating the school, program, year you are currently enrolled in, and if you are based in the Brandon, MB area and would like to be considered for our projects located near there, (2) resumé, (3) academic transcript, and (4) the names and contact information of three references who have agreed to be contacted.
Application process: email all application materials to Soil.Ecology@umanitoba.ca, ATTN Brad Sparling, Greenhouse Gas Program Director; use "summer field tech" as the subject line.

Decision expected by February 21, 2024

If you require accommodation supports during the recruitment process, please contact UM.Accommodation@umanitoba.ca or 204-474-7195. Please note this contact information is for accommodation reasons only.

Application materials, including letters of reference, will be handled in accordance with the protection of privacy provisions of "The Freedom of Information and Protection of Privacy" (Manitoba). Please note that resumes will be provided to participating members of the search process.