

# Plant Disease Technician

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

**Project Title:** Nematode and Fungal Pests of Crops in Manitoba

**Project Description:** We are currently looking for highly motivated hands-on students who enjoy working in the laboratory and occasionally outdoors and a part of a team. The student will work on several projects examining limiting yield losses from the disease, Potato Early Dying and damage caused by plant parasitic nematodes. Soil and plant sampling will be conducted at field trial sites and farm surveys for the fungal wilt pathogen, *Verticillium dahliae*. Studies will also involve determination of host and environmental preferences, yield damage, and control strategies of plant-parasitic nematodes in the Canadian Prairie Provinces. The nematodes to be examined include members of the genus *Ditylenchus* and *Pratylenchus*. Crops examined include major field, pulse and horticultural crops grown on the Canadian Prairies. The research projects involve microscopic and molecular identification of pathogens and nematodes.

**Qualifications:** Enrolled in Agroecology, Agronomy, Biology, Engineering, Environment, Physical Geography, or Soil Science. Preference given to those in senior years with excellent academic achievement. Ability to follow detailed instructions and attention to detail an asset.

**Duties and Responsibilities:** The student will be responsible for assisting graduate students and Senior Technicians in laboratory and field studies for plant and soil sampling and analyses. Laboratory duties include extraction of pathogens and nematodes, microscopic and molecular (conventional and real-time PCR) identification, preparation reagents and media, pure culture isolation and maintenance. Field duties include soil and plant sampling, and visual plant disease ratings.

**Skills and Benefits to be Gained from this Position:** Microscopic and molecular pathogen and pest evaluation, extraction and isolation methods, conventional and real-time PCR, culturing, disease rating, field sampling

**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:** April 27 to August 28, 2021

**Hours/week:** 35

**Salary:** Faculty pay scale dependent on program year

**Location:** Ellis Bldg, UM and occasional day trips to rural field sites

**Other info:** Transportation vehicle provided

### How to Apply

**Applications accepted from:** February 5 to March 2, 2021

**University Level:** Undergraduate

**Application method:** E-mail

**Required application materials:** Cover letter, resumé, academic transcript, a statement indicating the school, program, and year that you are currently enrolled in, and the names and contact information of three (3) references who have agreed to be contacted.

**Notification process:** E-mail application materials to Terri Fairman, Molecularly Biology Research Technician, Applied Soil Ecology Lab at [Terri.Fairman@umanitoba.ca](mailto:Terri.Fairman@umanitoba.ca)

Please note that our ability to offer employment is contingent on changes in the restrictions as per the University's SARS-CoV-2 biosafety protocols