

THE SOILED PROFILE



NEWSLETTER DEPARTMENT OF SOIL SCIENCE UNIVERSITY OF MANITOBA “bringing you the latest dirt”



UNIVERSITY
OF MANITOBA

For general inquiries or if you have material to include in the newsletter:

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Past issues of the Soiled Profile are now on our
webpage: [umanitoba.ca/afs/soil science/](http://umanitoba.ca/afs/soil%20science/)

2 December 2016

Upcoming:

Wednesday, Dec 7, 12:30 p.m., Room 346 Ellis Building – Department of Soil Science seminar. Dr. Srimathie Indraratne, Department of Environmental Studies and Sciences, U of Winnipeg. “Sources of Potentially Toxic Trace Elements in Agricultural Soils: Geogenic or Anthropogenic?”

Wednesday, Dec 7, 3:30 p.m., Room 130 Agriculture Building – Faculty of Agricultural and Food Sciences Seminar, Dr. Christina Lengyel, Department of Human Nutritional Sciences. “A Balancing Act: Nourishing a Diverse Older Adult Population Residing in Long-Term Care Facilities”. Refreshments starting at 3:00 p.m.

Tuesday, Dec 20, 12:00 noon, Room 346 Ellis Building – Department of Soil Science annual holiday potluck. Please mark the date. More details to follow.

December 23, 2016 – January 2, 2017 – University closed.

Department Staff Away:

Brian Amiro	Dec 10 – 16 (San Francisco)
Mario Tenuta	Dec 6–7 (Thunder Bay), Dec 12–16 (San Francisco), Dec 22 (Saskatoon)

Please note: Terri Ramm will be working on Monday, Tuesday and Friday (Dec 5, 6 and 9) for next week.

News:

Amanda Taylor won the Campbell Scientific Photo Contest

In summer/fall 2016, Campbell Scientific held a photo contest to build a showcase of all the great work going on in the world using Campbell Scientific equipment. The winner of the photo contest was Amanda Taylor! She won an iPad Air and the winning photo will be the face of the 2017 Campbell Scientific calendar, which is distributed to thousands of Campbell clients and representatives from all over the world. The photo shows a flux measurement system in a blue-sky covered wheat field at the TGAS-MAN long-term research plot at Glenlea (see below). This tower was part of Amanda's doctoral research comparing 3 eddy covariance towers. It was late in the season, and the wheat was golden, contrasting nicely with a blue sky where a CSAT3 and CO2 intake rises from the measurement tower. Congratulations Amanda! [Read more](#)



"Measuring Fluxes over Golden Wheat" - photo by Amanda Taylor of the University of Manitoba

Enhanced Financial Supports for Students

As a result of the strike, some students may be experiencing unexpected financial hardship. For this reason, some additional funds have been allocated to our existing financial aid programs. Students will be required to submit an application which will be reviewed to determine whether or not they meet the eligibility criteria for the funds. The funds are available to undergraduate and graduate students. The forms can be found by using the following links:

For undergraduate students: http://umanitoba.ca/student/fin_awards/media/EL_APP_FALL_WINTER.pdf

For graduate students: https://umanitoba.ca/faculties/graduate_studies/media/emergency_loan.pdf.

Soil Science Shed - Domestic water shutdown - December 5th, 2016s

Please be advised that Physical Plant will be shutting down domestic hot and cold water to the Soil Science Shed on Monday, December 5th, 2016 from 8:00 AM until 11:00 AM. There will be no domestic water available during this shutdown for the whole building. Reason: to replace domestic cold water line. If you have any questions or concerns please contact Al Borsboom at 474-7235

Reverse Osmosis Water Shutdown on the Fort Garry campus

Please be advised of the upcoming Reverse Osmosis water shutdown for Fort Garry Campus.

- Shut down – Friday, December 9th, 2016 at 8:00 AM
- Start up – Friday, December 16th, 2016 at 8:00 AM

This shutdown will affect only Reverse Osmosis water systems used primarily in Labs. This will not affect the supply of domestic hot and cold water to buildings. RO water will not be provided during the sanitation period and therefore, storage of treated water is highly recommended. Staff and students who are affected by this shutdown will need to store treated water. Questions and concerns regarding this shutdown can be directed to Greg Kowk at 272-1513.

Opportunities:

TA and Grader/Marker Positions, Department of Soil Science

The following are links to opening for TA and Grader/Marker positions for Soil Science courses during the winter term. Closing date for applications is today, December 2.

https://umanitoba.hua.hrsmart.com/ats/js_job_details.php?reqid=17442 SOIL 4400 (TA)

https://umanitoba.hua.hrsmart.com/ats/js_job_details.php?reqid=17441 SOIL 3520 (TA)

https://umanitoba.hua.hrsmart.com/ats/js_job_details.php?reqid=17440 SOIL 0620 (2 TA)

https://umanitoba.hua.hrsmart.com/ats/js_job_details.php?reqid=17438 SOIL 0420 (2 TA)

https://umanitoba.hua.hrsmart.com/ats/js_job_details.php?reqid=17439 SOIL 0420 (Grader/Marker)

Soil Management Specialist - Field Crops, Ontario Ministry of Agriculture, Food and Rural Affairs, Kemptville, ON

What can I expect to do in this role?

- act as the lead provincial specialist on soil management in field crops
- lead Ontario's technology transfer activities through the development, coordination and implementation of strategies, policies and programs
- coordinate projects designed to assess the applicability and sustainability of new and existing practices, products, technologies and programs
- prepare and deliver educational information and awareness building tools to facilitate change
- act as a liaison between the research community and industry
- manage contentious and high priority issues
- provide technical advice and expertise in support of policy and program development

Bilingual, permanent position. Salary Range: \$1,356.49 - \$1,731.39 per week. Apply online, only, at www.ontario.ca/careers, quoting Job ID 99911, by **Monday, December 12, 2016**. Please follow the instructions to submit your application.

Agronomic Land Management Specialist, University of Windsor, Etobicoke or Windsor, ON

Term: January 3, 2017 or ASAP to August 31, 2018

The University of Windsor, Great Lakes Institute for Environmental Research (GLIER), seeks a highly motivated, well organized individual to execute a campaign to survey the agricultural land management practices in 10 small headwater catchments in southern Ontario. Job duties include: 1) design an appropriate sampling strategy to ensure a representative sample of land management practices across each watershed is achieved; 2) organize community events to promote and disseminate project information; 3) coordinate, procure, and manage services from qualified specialists such as Certified Crop Advisors or Conservation Authority personnel to administer farm-operator surveys and appropriate laboratories to perform soil testing; 4) prepare, curate, and evaluate data gathered; and 5) organize and attend meetings between various non-governmental organizations, Conservation Authorities, academic, and government researchers.

Qualifications:

- Comfortable initiating and running meetings, presenting in front of groups of people, and telephoning/meeting with project partners such as Conservation Authorities, farm operators, members of the public, and local fertilizer providers/agronomists/Certified Crop Advisors;
- Ability to work independently in a fast-paced team environment

- Applicants must possess post-secondary credentials in soil science, agronomy, agricultural engineering, or a related field;
- Ability to organize and prioritize work, meet deadlines;
- Excellent interpersonal and written/oral communication skills, attention to detail, and proven ability to write scientific and/or technical reports;
- Working knowledge of Microsoft Office or a comparable office product;
- Experience working with geographic information systems software, statistical analysis software, and relational databases (e.g. Access) and maintaining large datasets is desired but not essential;;
- Knowledge of nutrient management software (e.g., NMAN) is desired but not essential;
- Familiarity with farming practices carried out currently and historically in Ontario is desired but not essential;
- Experience working with farming communities in Ontario is strongly desired but not essential; and
- Applicants must have a valid Ontario driver's license.

Applications will be reviewed starting December 15, 2016 and will continue until the position is filled. Applications should consist of a resume and a cover letter describing how the applicant meets the requested qualifications. Cover letter should be 2 pages maximum. Resume should include references, which may be contacted by the project team. Applications or questions about the position can be sent by email to: Dr. Christopher Wellen Research Assistant Professor Great Lakes Institute of Environmental Research University of Windsor Windsor, Ontario christopher.wellen@uwindsor.ca.

M.Sc./Ph.D. Graduate Student Positions, Dept of Soil Science, Univ of Saskatchewan, Saskatoon, SK

Project title: Understanding resilience in agroecosystems: Landscapes in transition

Co-supervisors: Drs. Diane Knight and Fran Walley

Project description: This project aims to characterize key ecosystem services, and the resilience of these services to changes such as land use intensification or changes in temperature and precipitation patterns associated with global climate change. To quantify soil resilience, we will be examining soil quality characteristics, including soil organic matter content [specifically, changes in light (mineral free) and heavy (mineral-associated) fraction SOM] and aggregate stability as influenced by vegetation, and temperature and water regimes. The proposed research will engage a MSc student in incubation studies in which temperature and moisture availability will be manipulated to determine the impact on C and N mineralization from soils developed under different vegetation regimes within variable landscapes. Additionally, a PhD student will examine the impact of these regimes on N and C speciation in light (mineral free) and heavy (mineral-associated) SOM fractions, and in microaggregates stabilized under different vegetation/temperature/moisture regimes, using synchrotron-based techniques. Synchrotron studies will be conducted at the Canadian Light Source, University of Saskatchewan.

Qualifications: A background in soil microbiology and microbiological techniques is desired at the M.Sc. level and required at the Ph.D. level. A valid drivers license is required.

Annual stipend: M.Sc. \$22,680, Ph.D. \$25,920. Additionally, there are scholarship and teaching assistant opportunities above the base stipend level.

To apply for this position, send your unofficial transcripts, CV and names of two references to Dr. Diane Knight diane.knight@usask.ca or Dr. Fran Walley fran.walley@usask.ca.

Events:

Soil Health Conference, Feb 16-17, 2017, Iowa State University, Ames, IA

The theme of the 2017 Soil Health Conference is “Building Soil Health for Healthy Environment and Farm Profitability” in Iowa and the Midwest. The conference will offer:

- Research-based information. During the two days conference, research-based information addressing the soil health principles and management practices for best decision-making for building healthy soils, sustainable agriculture, and clean environment will be presented.
- Speakers from land-grant universities and USDA. The Soil Health Conference will host a number of renowned scientists, agronomists, framers, and conservationists as conference speakers. Information will be provided by scientists from land-grant universities, USDA-ARS, USDA-NRCS, farmers and agriculture sector.
- Wide range of topics. Presentations at the conference will address concerns and interests of farmers, agronomists, agricultural consultants, soil scientists, extension professionals, and policy makers who are interested in learning about soils for sustainable agriculture.
- Posters on research and education. Posters on research and education addressing management practices and their effects on soil health will be displayed during the two days of the soil health conference.
- CCA credits. This conference will provide an opportunity to certified crop advisors who are eligible to earn continued education credits in soil and water by attending many breakout sessions.

Register online by visiting: register.extension.iastate.edu/soilhealth/registration. Click [here](#) to view a preliminary conference program, and catch highlights from the 2016 Soil Health Conference in this [video](#). Join the discussion on Twitter and keep up on conference announcements using the hashtag #2017SHC.

2017 Soils and Crops Conference, Mar 6-7, 2017, Saskatoon, SK

The annual Soils and Crops Workshop is a two day event offering updates on current research being conducted in the areas of soils, crops and economics by researchers, faculty and graduate students from across western Canada. The second day offers a workshop based on invited presentations designed to provide in-depth training on a variety of topics emphasizing agronomy. For more information: <http://www.usask.ca/soilscrops/index.php>.

Title submission deadline: **Dec 20, 2017** at the link below:

http://www.usask.ca/soilscrops/Documents/submission_forms/title-submission-form.php

There are 1st, 2nd, and 3rd place awards for both student oral (\$500, 300, 200) and student poster (\$300, 200, 100) presentations. Also, students who wish to present their research orally are encouraged to apply for the \$1000 Travel Award, which is intended to help cover their trip expenses. Applicants for the travel award must send their CV and an abstract (< 350 words) outlining the research they will be presenting to hangs.ryan@usask.ca. Notes: the deadline for award application submission is January 1, 2017, the Travel Award includes free registration, and only students presenting their research orally will be considered for the travel award.

AIC 2017, Apr 24-26, 2017, Winnipeg, MB

The Agricultural Institute of Canada's 2017 Conference will be held in Winnipeg with the theme “Agricultural Innovation in a Changing Environment”. Click [here](#) to learn more about the conference and register your attendance today to take advantage of early bird discounts.