

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 on our
webpage: [umanitoba.ca/afs/soil science/](http://umanitoba.ca/afs/soil%20science/)

6 October 2017

Upcoming:

Thursday-Friday, Oct 5-6 – Fall Term Break. No classes.

Friday, Oct 6 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 6:00 p.m.**

Saturday, Oct 14 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 1:30 p.m.**

Friday, Oct 27, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Rachel Krause, Assistant Professor in Biology, Canadian Mennonite University. Title: Soil, Public Health, And the World’s Most Common Parasites: The Soil-Transmitted Helminths.

Saturday, Oct 28 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 1:30 p.m.**

Wednesday, Nov 8, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Vince Palace, Head Research Scientist, IISD - Experimental Lakes Area Inc. Title: Freshwater Oil Spill Research at IISD-ELA.

Department Staff Away:

Carmela Cianflone	Sep 22-Oct 6
David Lobb	Sabbatical July 01 – December 31, 2017
Mario Tenuta	Sabbatical July 01 – December 31, 2017

News:

New Soil Science Graduate Student Association Executive

President – Ahmed Lasisi
Secretary – Theresa Adesanya
Treasurer – Ruidong Mi
MSSS rep- Chamara Weerasekara
Lunch room reps- Priscillar Wenyika and Nazanin Ghavami
GSA reps – Mauli Gamhewage and Marufa Fatema
Social rep – Kate Dorrian

Paper of the week:

Yu, Q., Ponomareva, E., Van Dyk, D., McDonald, M. R., Sun, F. **Madani, M.**, and **Tenuta, M.** 2017. First Report of the Carrot Cyst Nematode (*Heterodera carotae*) from Carrot Fields in Ontario, Canada. *Plant Disease* 101(6):1056

Opportunities:

2018 NSERC Scholarships and Fellowships Competition

The following table provides a list of NSERC scholarships and fellowships programs and their respective deadline dates. All program descriptions have been updated for the upcoming competitions. For an overview of changes, consult the Summary of Changes [web page](#) on the NSERC website.

<u>Program</u>	<u>Tri-Council Deadline</u>
Canada Graduate Scholarships-Master's (CGS M) Program (Note internal deadlines below)	December 1, 2017
Alexander Graham Bell Canada Graduate Scholarships-Doctoral (CGS D)/NSERC Postgraduate Scholarships-Doctoral (PGS D) Programs (Note internal deadlines below)	November 27, 2017
NSERC Postdoctoral Fellowships (PDF) Program	October 16, 2017
Canada Graduate Scholarships – Michael Smith Foreign Study Supplements (CGS-MSFSS) Program	October 10, 2017
Foreign Study Supplement in Taiwan	February 1, 2018
Japan Society for the Promotion of Science Postdoctoral Fellowships (JSPS)	January 25, 2018

The NSERC PGSD online application form is now available. The application process for the PGS and CGS programs remains a fully electronic submission system for this year. Students will complete their application using NSERC's on-line application system and are not required to print and sign paper copies. NSERC has continued to permit online access to the NSERC applications by university representatives. Please contact Rowena.Krentz@umanitoba.ca if you are interested in having one representative in your department provided with online access. Departments can use this access to ensure that their students' applications are complete, and to provide feedback.

There are two deadlines to note for the NSERC PGS\CGS competition; a transcript submission deadline and an on-line application submission deadline. Applicants must submit official transcripts from all institutions attended in sealed envelopes to Rowena.Krentz@umanitoba.ca at 500 University Centre by **October 6, 2017**. This will provide time for her to upload transcripts so that students can submit their application electronically by **October 20, 2017**. Refer to the [FGS Awards Database](#) for detailed instructions related to submitting transcripts. Should you have any questions specific to the above awards, do not hesitate to contact NSERC by email at schol-slo@nserc-crsng.gc.ca.

2018 Canola Agronomic Research Program

The objective of the CARP Program is to help canola growers increase yield, increase profitability and reduce production risk while enhancing sustainability through quality grower group-funded research and effective technology transfer. 2018 CARP Letters of Intent (LOIs) are being solicited on behalf of the three provincial canola grower organizations. Collaboration with multiple organizations/facilities is welcomed and encouraged.

The 2018 CARP research priorities:

- Disease
- Fertility
- Integrated Pest Management & Sustainability
- Stand Establishment
- Harvest and Storage Management

Links: [2018 CARP Research Priorities](#) [2018 CARP LOI template](#)

Deadline for submission of 2018 CARP LOI: **October 31, 2017**. Note: The ORS deadline is **October 24**. All submissions should be sent to the attention of Gail Hoskins, CCC Crop Production Administrator and CARP Coordinator at: hoskinsg@canolacouncil.org

Notifications and requests for Full Proposals will be sent to applicants by Thursday, November 30, 2017.

PhD in Environmental Biogeochemistry, Renewable Resources Dept, Univ. of Alberta, Edmonton, AB

The Athabasca bituminous sands have received global attention due to the highly visible profile of industrial operations, in stark contrast with the surrounding Boreal landscape. These striking images have provoked increased scrutiny related to potential impacts, such as the release of trace metals into the Lower Athabasca River (LAR). High-quality scientific investigation is therefore needed to assess industrial contributions to trace element concentrations in the LAR; however, distinguishing between natural and anthropogenic inputs is not straightforward. Myriad natural sources also contribute to the 125-km stretch of the LAR that is proximate to industrial operations, such as tributaries containing high concentrations of iron and organic matter. Thus, a sound understanding of the biogeochemical processes occurring during the mixing of sources is needed to assess their impact on trace element concentrations. Cutting-edge analytical methods and ultraclean metal-free sampling and analysis conditions are also required to measure trace element speciation at low natural background concentrations.

The SWAMP (Soil, Water, Air, Manure, and Peat) lab is a world class metal-free analytical facility in the Department of Renewable Resources at the University of Alberta, specially designed to measure metal concentrations at ultratrace levels (<https://swamp.ualberta.ca/>). The SWAMP facility houses iCAP-Qc

quadrupole and Element 2 XR sector field ICP-MS instruments for multi-element quantification in the ng L-1 and pg L-1 range. Asymmetrical flow field-flow fractionation (AF4) is coupled to the iCAP-Qc system for the separation of dissolved trace elements into mainly ionic, organic-associated, and mainly inorganic species, allowing source differentiation based on the size distribution and speciation of trace elements in the colloidal phase. Absorbance and fluorescence detectors are coupled to the AF4 system for the characterization of dissolved organic matter. A G-SPLITT fractionation system is also available to eliminate filtration artefacts during the isolation of colloids.

The SWAMP lab team is currently seeking a highly motivated and qualified individual to undertake PhD research related to trace element sources and cycling in the LAR. The ideal candidate will hold an MSc degree in chemistry, geochemistry, or biogeochemistry, with a strong background in analytical chemistry. Laboratory experience is required, since lab work will comprise a significant proportion of all research projects. Fieldwork experience is an asset, as the work may require one or more two-week sampling tours on the LAR. To apply, please send a letter of application, CV, and the names of two references to Ms. Karen Lund (klund@ualberta.ca). For further information about the project, please contact Dr. Chad W. Cuss (cuss@ualberta.ca).

Events:

FGS Keynote Presentation, Thurs, Oct 26, 2:30 – 4:00, 306 Tier Building

PhDs that Work: Finding Success in an Uncertain Job Market

Join L. Maren Wood, PhD and Jennifer Polk, PhD, two pioneering career coaches and the founders of Beyond the Professoriate, as they share their expertise to help graduate students make better sense of today's challenging and shifting professional landscape.

[Registration link](#)