

THE SOILED PROFILE



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



UNIVERSITY
OF MANITOBA

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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/)

13 October 2017

Upcoming:

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:

Martha Blouw	Oct 16-20
Lynda Closson	Oct 24, 26-27
David Lobb	Sabbatical July 01 – December 31, 2017
Mario Tenuta	Sabbatical July 01 – December 31, 2017

News:

Soil Science Graduate Students Convocation

This week, four soil science graduate students were part of the fall convocation; Dr. Amanda Taylor, Ms. Magda Rogalsky, Ms. Johanna Theroux and Mr. Justice Zhanda. Congratulations to all on successfully completing your graduate degrees.

Amanda and Magda are in the photo below along with their advisors, Dr. Brian Amiro and Dr. Don Flaten, respectively.



Global Soil Partnership Newsletter

Since 2012, the soil community has celebrated World Soil Day (WSD) on the **5th of December** to raise awareness on the importance of soils for ZeroHunger, essential eco-system services – including climate change adaptation and mitigation – and sustainable development. Each year, there are events in over 150 countries across the world, making WSD a huge day on the UN calendar. On 5th December 2017, the first-ever Global Soil Organic Carbon map (GSOCmap) is being launched and will support the development and empowerment of countries to build their national soil information systems, and so identify land that can be rehabilitated to increase food production and climate change mitigation through increased storage of soil organic carbon.

The theme of the World Soil Day campaign this year is "Caring for the planet starts from the ground". The GSP Secretariat, along with the GSP Partners, are committed to creating change and providing the soil community with tools and activities for an unforgettable celebration. So, join the movement, and help us create a buzz around #WorldSoilDay. Create tangible impact by inspiring action from governments, cities or local authorities, media, the private sector, local communities, teachers, students, colleagues and many others.

The success of the World Soil Day depends on you! Please tell your friends and colleagues and help disseminate the new World Soil Day webpage: <http://www.fao.org/world-soil-day/en/>.

Paper of the week:

Kulshreshtha, S., C. Grant, **B. Amiro**, K. Ominski, G. Legesse, and A. Alemu. Economic and greenhouse gas emission impacts of doubling of forage area in Manitoba, Canada. *Canadian Journal of Soil Science* 97: 487 – 496.

Opportunities:

Research Scientist – Integrated Cropping Systems, Agriculture and Agri-Food Canada, Fredericton, NB

The Fredericton Research and Development Centre invites applications for a Research Scientist position with specialization in integrated cropping systems. The incumbent's research will focus on improving the productivity and ecological sustainability of intensive agricultural production systems in Atlantic Canada. Arable crop production is central to the agricultural economy in Atlantic Canada. Crop production systems in Atlantic Canada are characterized by short growing season, in a region with elevated insect, disease and weed pest pressure, and on shallow soils in sloping landscapes where excess precipitation events are frequent. The result is a high risk of loss of sustainability in the short term due to crop yield losses, and in the long term due to soil degradation. This position will focus on the development and evaluation of novel integrated cropping systems to improve the productivity and ecological and economical sustainability of intensive cropping systems in Atlantic Canada. The incumbent will examine the effects of management practices (cropping sequence, cover crops, tillage systems, organic amendments, integrated pest management) on crop yield, insect, disease and weed pest pressures, and soil health and how they can be managed at a field or landscape scale.

The intent of this process is to fill one indeterminate full time position in Fredericton, New Brunswick. A pool of qualified candidates may be established and may be used for similar permanent and temporary employment for the location indicated for this process. Closing date: **31 October 2017**. More information: [click here](#).

SIXTH PRAIRIE CONSERVATION AND ENDANGERED SPECIES CONFERENCE FELLOWSHIP

The steering Committee of the Sixth Prairie Conservation and Endangered Species Conference has created an endowment fund at the University of Manitoba from Conference proceeds. The purpose of the fund is to support graduate students at the University of Manitoba who are conducting research related to conservation issues on the Canadian Prairies (land or water).

The fellowship shall be offered to graduate students who:

- are enrolled full-time at the University of Manitoba in a Master's or Ph.D. program relating to prairie conservation and/or prairie endangered species management,
- have achieved a minimum cumulative grade point average of 3.5 (or equivalent) on the last two regular academic sessions while studying full-time,
- are conducting or have proposed to conduct research in the area of prairie conservation and/or prairie endangered species management in Canada,
- show great potential as researchers, as judged by the selection committee.

Value: \$1,425 (approximately)

Deadline: **November 10, 2017**. More information and to apply: [click here](#).

Community Service Learning Projects, University of Manitoba

CSL is currently recruiting interdisciplinary teams of students to participate in international community service-learning projects in South America, The Caribbean, The Amazon Rainforest and Northern Manitoba.

Our programs are grounded in reciprocal and long-standing relations with community partners, and aim to introduce UoM students to the ethical and strategic realities and complexities of community and social justice work beyond their everyday world. This year, our project-based programs focus on climate change resilience and Indigenous knowledge and perspectives.

Reading Week, 10 days (February 2018)

- Amazon Rainforest, Ecuador – Alternative Reading Week: Merging Western and traditional Indigenous strategies to increase the climate-change resilience of a Kichwa rainforest community.
- Belize – Alternative Reading Week: Learn about Maya culture by facilitating project-based learning at a community school and participating in local outings to a cacao farm and Maya chocolate-maker.

Summer, 6 weeks (May-June 2018)

- Island of Chiloé, Chile: Assist with the promotion and coordination of workshops where Indigenous Williche youth and practitioners of Indigenous Health will gather to learn from each other, exchange perspectives and find a sustainable future for Traditional Indigenous Health in their communities.
- Leaf Rapids, Northern Manitoba: From food security and sustainability to education, recreation and Cree culture, discover the realities of everyday life in the North while living in a community, interacting with residents, and volunteering in the boreal gardening project and local school. This program runs for six weeks in May and June.

Program fees are all-inclusive: return airfare, accommodation, meals, and more. Bursaries of up to \$1,000 available. To apply and for more information: <http://umanitoba.ca/student/studentlife/servicelearning/> or service.learning@umanitoba.ca.

PhD Opportunity, Department of Soil Science, University of Saskatchewan, Saskatoon, SK

Microbial controls on greenhouse gas fluxes and soil N and C cycling in a novel forage grazing system

Drs. Melissa Arcand and Bobbi Helgason are seeking a PhD student to conduct research as part of an Agriculture Greenhouse Gas Program (AGGP)-funded project aimed to evaluate controls on greenhouse gas emissions in a cattle grazing system on novel forage crops. This project will involve working with other researchers collecting greenhouse gas flux data from soils and grazing cattle as well as soil properties related to soil C sequestration potential. The student's role in this project will be to examine biological influences on soil C and N cycling, including microbial controls on N₂O and CO₂ emissions and the fate of belowground C inputs to soil and its stability. The research will provide a breadth of experience, including field-based measures that will link to gas flux data in an established grazed forage trial, mechanistic work in greenhouse experiments, and integrating data using a carbon and nitrogen model. Students will have the opportunity to build and apply skills in molecular microbiology, stable isotope techniques, and modelling of carbon and nitrogen cycling in forage-based systems.

Candidates with an MSc in Soil Science, Plant Science, Microbiology, or related discipline and with strong analytical laboratory, communication skills, and a willingness to do field work are encouraged to apply. Students will be paid a stipend of \$30,000 per year for 3 years. Additional scholarship opportunities are available.

Interested candidates should submit a CV, a one page statement of research interest, and unofficial transcripts to melissa.arcand@usask.ca. Start date: January 2018 (preferred) or no later than May 2018.

Events:

Manitoba Agronomists Conference, Dec 13-14, 2017, University of Manitoba

Registration is now open. http://umanitoba.ca/faculties/afs/agronomists_conf/registration.html

Early Bird registration fee - \$185.00. Early Bird registration deadline –Friday, **December 1, 2017**.

Regular registration fee - \$225.00. Regular registration deadline – Friday, **December 8th, 2017**.

Global Food Security Symposium, Mar 21-22, 2018, Washington, DC

We're working on a major report exploring how to engage youth in low income countries and rural areas to spur creativity and productivity that leads to prosperity. Do you know of a student who is interested in shaping new ideas for food security and agricultural development? Encourage them to apply now to join the 2018 Next Generation Student Delegation! Selected students' travel to and accommodations in Washington DC are covered, and they enjoy the opportunity to engage in symposium discussions and interact with global leaders working on agriculture, food, and nutrition issues.

Learn more about [last year's Next Generation Student Delegation](#).

Applications are due on or before **Sunday November 5**. Questions about the application process? Please contact nextgendelegation@thechicagocouncil.org.