

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/)

29 January 2016

Upcoming:

Wednesday, February 3, 10:00 a.m., Room 346 Ellis Building – Coffee reception to mark the occasion of the inaugural awarding of the Geza and Trudi Racz Scholarship in Soil Science. All department staff and students are invited to attend.

Wednesday, February 10, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Dr. Paul Bullock, Department of Soil Science. “Salt + Mud + Satellites + Weather = A Career in Soil Science”.

Wednesday, February 24, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Dr. Annemieke Farenhorst, Department of Soil Science. Title: TBA.

Friday, February 26, 9:30 a.m. – Soil Science M.Sc. Thesis Defense, Room 346 Ellis Building. Jolene Rutter. “Measurement of greenhouse gas and nitrogen gases losses during cold weather composting of separated pig slurry solids”.

Department Staff Away:

Tim Stem will be away most Fridays for the next few weeks.

News:

Congratulations to Brian Miller.

Brian successfully defended his M.Sc. last Friday. Well done.

Congratulations to Sirajum Munira (Rumi).

Rumi has been awarded the Soils and Crops Graduate student Travel award this year. The Soils and Crops conference will be held in Saskatoon, March 14-15, 2016. She will be making an oral presentation entitled “Glyphosate retention and phosphorus adsorption-maximum in Prairie soils”. Congratulations!

Geza and Trudi Racz Scholarship in Soil Science

Members of the department are invited to a coffee reception in Room 346 on Wednesday, Feb 3 at 10:00 a.m. The reception will mark the occasion of the inaugural awarding of the Trudi and Geza Racz Scholarship in Soil Science to Jeff Seward.

Paper of the week:

Koiter, A.J., Owens, P.N., Petticrew, E.L., **Lobb, D.A.** 2015. The role of gravel channel beds on the particle size and organic matter selectivity of transported fine-grained sediment: implications for sediment fingerprinting and biogeochemical flux research. *Journal of Soils and Sediments*: 2174-2188.

*Vienna Soil Declaration adopted by FAO and IAEA – International **DECADE** of Soils (2015-2024)*

The 'Vienna Soil Declaration' presented during the conference "Celebration of International Year of Soils 2015 – Achievements and Future Challenges" in Vienna on Dec. 7, 2015, has been recently adopted by FAO and IAEA. In this Declaration IUSS has identified the key roles played by soils in addressing the major environmental, health and social problems which humanity is currently facing. Given this situation, the IUSS believes that it is incumbent on us to not only maintain the level of activity generated in IYS 2015 but to increase the momentum and the extent of our contributions on these issues as we move towards the Centenary of the formation of IUSS in 2024.

During the above mentioned event IUSS President Prof. Rainer Horn took the opportunity to announce the International Decade of Soils 2015 -2024, which was unilaterally declared by IUSS, to keep the momentum and further increase soil awareness. IUSS will seek the support of global organizations such as CGIAR, FAO, IAEA, UNEP and others for this initiative. A logo and other information/dissemination materials will be provided in the near future.

The United Nations' decision to inaugurate 2015 as International Year of Soils was an important step in raising public awareness. But public concern alone is not sufficient to protect soils and ensure their sustainable use. Soil scientists in every country around the world need to take and to maintain action. It is essential that all IUSS Divisions, Commissions, Working Groups, national and individual members accept the challenge to undertake activities to ensure that the significance of soils in maintaining healthy life and environment remain continually at the forefront of political and scientific planning and decision making.

Opportunities:

IISD-Experimental Lakes Area Undergraduate Research Scholarship

The IISD-ELA is a world renowned facility in northwestern Ontario where research is conducted on water quality and aquatic biota using whole-ecosystem experimentation and monitoring (<http://www.iisd.org/ela>). IISD-ELA is seeking a motivated individual to spend the summer of 2016 at the unique IISD-ELA facility to assist with field-based research on hydrology, water quality, water chemistry, fisheries biology and freshwater ecology. The IISD-ELA Undergraduate Research Scholarship is competitive and the qualifying candidate must:

1. be a student at the University of Manitoba;
2. have completed a minimum of one year as a full-time student (minimum 30 credit hrs);
3. have achieved a minimum grade point average of 3.0; and

4. declare an intention to register full-time (minimum 80% course load) in the academic session immediately following the research placement.

Candidates are required to provide the following application materials:

1. a curriculum vitae;
2. their most recent academic transcript (attached to CV document);
3. a cover letter (500 words maximum) outlining previous experience(s) in areas related to IISD-ELA research and how receiving the scholarship will further the applicant's academic and career interests.

The successful candidate will be awarded \$8000 for a 17 week placement plus a contribution of \$2000 towards tuition at the Univ of Manitoba in the following academic year. In addition, full room and board will be provided at the IISD-ELA facility. Applications for 2016 summer research placements must be submitted to <http://iisd.bamboohr.com/jobs> by **February 9, 2016**. Candidates may be asked to attend an interview in late February. For more information please contact Chandra Rodgers (crodgers@iisd-ela.org).

PhD Positions available in Biogeochemistry and Soil Greenhouse Gas Emissions, University of Florida

Highly motivated students are sought to investigate greenhouse gas emissions in Southeastern Florida grasslands within the framework of a USDA project. Multiple topics are available and can further be determined by discussion of the candidate with the principal investigators of the project:

- Field measurements of greenhouse gas emissions (carbon dioxide, nitrous oxide) in order to understand emission responses to management practices and to climate variability and change
- Laboratory experiments to track microbial greenhouse gas production in response to warming and rainfall variability
- Field and lab measurements of microbial community carbon consumption and enzyme expression
- Development and application of numerical models that quantify microbial production of greenhouse gases under global change factors.

The work is highly collaborative, and students are sought who have interest and motivation to shape a thesis that cuts across these broad themes and investigation techniques. Students will enroll in the Soil and Water Science Program, with tuition waver and assistantship. Positions begin in August 2016. If this sparked your interest, information on how to apply can be found on <http://soils.ifas.ufl.edu/academics/application.shtml>. If there are questions do not hesitate to contact: Stefan Gerber, sgerber@ufl.edu, Patrick Inglett, pinglett@ufl.edu, Maria Silveira, mlas@ufl.edu, Kanika Inglett kanika@ufl.edu.

Technology Development Representative, Monsanto, Regina, SK

Key Business Accountabilities:

- Execute Technology Development field research program
- Project leadership for technical research projects
- Operate in full compliance with confined/stewardship trial regulations
- Provide data submissions in support for regulatory approval
- Technical resource for internal and key external (academic /extension) stakeholders
- Compliance with Monsanto safety and driving policies
- Manage summer assistants

Scope of the Job:

- Execute Technology Development field research program
- Develop protocols, identify cooperators and select suitable trial locations
- Manage all aspects of trial implementation, including seeding, spraying, swathing and harvest
- Manage data using Monsanto database systems and prepare summaries as required
- Project leadership for seed, trait, and agronomy technical projects
- Identify business need for technical information
- Develop field protocols including treatments, site assignments and data to be collected
- Ensure protocols are validated and materials (seed, chemistry) supplied to field investigator
- Summarize data results after harvest, including business recommendations
- Identify field cooperators and complete land lease agreements
- Operate in full compliance with confined/stewardship field trials
- Implement trials with required conditions of buffers, isolation zones, seed logs, harvest disposition reports and other necessary requirements
- Post-harvest monitor sites as described by confined field trial regulation
- Work with Regulatory Affairs Managers to submit necessary regulatory packages, including data summaries to support registrations
- Technical resource for key academics, extension personnel, and licensees
- Provide technical information on new seed, trait and Crop Protection products
- Address key technical issues and support communication to stakeholders (i.e. weed resistance management)
- Build relationships and provide project support for collaborative research projects where appropriate
- Compliance with Monsanto safety and driving policies (complete training and reporting as required)
- Lead safety initiatives at TD sites and locations (meetings, training, etc.)
- Recruit, hire and manage summer assistants including their compliance with Monsanto safety and driving policies

Qualifications:

- M.Sc. or Ph.D., degree preferred. Candidates with 5+ years experience and B.Sc. will be considered
- Knowledgeable in Canadian canola, corn and soybean production practices as well as Crop Protection products and weed management
- Excellent organization and time management skills
- Proficient in data and project management
- Proficient in summarizing and communicating technical information for business impact
- Excellent relationship building skills
- Excels in a team environment

To apply: <https://jobs.monsanto.com/job/saskatchewan/technology-development-representative-regina/769/1319035>.

Overton Environmental Enterprises Opportunity, Winnipeg, MB

A recent graduate (M.Sc or PhD) is invited to become a member of the Overton Environmental Team. A well rounded soil ecologist, plant ecologist or agro-ecologist is sought. The candidate should have some experience in agriculture to at least the ability to learn quickly and independently on the various plant

growing systems the company products are utilized in. The position involves direct customer relations, sales, technical support, product development and developing sales and marketing strategies. The position will involve travel within Canada, USA and abroad to conferences sales meetings and business development. Great communication abilities and an outgoing personality are desirable for this position, as it involves direct client relations.

The position is not posted yet, but will be in the coming week. If there are any potential candidates, please contact Dale Overton – President, Overton Environmental Enterprises Inc., 13-601 Bowman Ave, Winnipeg, MB, R2K 1P7, Tel: (204) 417-4122, Fax: (204) 417-4392, Cell: (204)-612-8121, info@overtonee.ca, www.overtonee.ca. Compensation will start at \$50,000 and go from there based on performance.

Events:

AMS 32nd Conference on Agricultural and Forest Meteorology, 22nd Symposium on Boundary Layers and Turbulence, 3rd Conference on Biogeosciences, June 20-24, 2016, Salt Lake City, UT

You can find the Call for Papers for each conference and more information, including a link to the abstract submission portal, here: <https://www2.ametsoc.org/ams/index.cfm/meetings-events/ams-meetings/32agforest-22blt-3biogeo/>. Abstracts will be accepted until **8 February 2016**.

The CSAFM annual business meeting will be held this year during the conference.

2016 CSSS/PRSSS Conference, May 14-19, 2016, Kamloops, BC

Online registration and abstract submission are now open. The deadline for abstract submission is **February 15, 2016**. The conference will open on Monday (May 16) with talks from keynote speakers – Dr. Ray Weil (University of Maryland, College Park, MD) and Dr. Mark Liebig (USDA-ARS Northern Great Plains Research Laboratory, Mandan, ND).

- Scientific sessions will be held on Monday, Tuesday, and Wednesday.
- Field trips are planned for May 14 & 15, 2016 (Okanagan Valley), May 17 (half day field trip to Lac du Bois Grassland Protected Area), and May 19 (Cache Creek area).
- A banquet will be held on Wednesday (May 18) evening, which will include the CSSS awards. The banquet (and breakfast and lunches each day and the Lac du Bois tour fee) is included in the registration fee.

STUDENTS PRESENTATION AWARDS AT 2016 CSSS-PRSSS CONFERENCE: Students competing for the Bentley (oral) or President (poster) awards are encouraged to submit to any session that is topically appropriate. Student presentations may be moved to different sessions, to allow judging to be completed before the awards banquet on Wednesday May 18, 2016. Students may submit as many abstracts as they wish; however, please note that only one presentation (oral OR poster) per student will be submitted for judging. Students submitting multiple abstracts will be asked to indicate which is to be judged. If this is not clear, none of the abstracts from that student will be judged.