

# 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 now on our  
webpage: [umanitoba.ca/afs/soil\\_science/](http://umanitoba.ca/afs/soil_science/)

**10 February 2017**

### Upcoming:

Wednesday, Feb 15, 12:30 p.m., Room 346 Ellis Building – Two conference-length Department of Soil Science seminars.

Masoud Goharrokhi, Ph.D. student. “Assessing some of the issues associated with the time-integrated fine sediment sampler (TIFSS).”

Mayowa Adelekun, Ph.D. student. “Simulation of greenhouse gas fluxes from perennial forage grasses and annual crops using the DNDC model.”

Monday, Feb 20 – Louis Riel Day. University closed.

Feb 21-24 – Term break. No classes.

Wednesday, Mar 1, 12:30 p.m., Room 346 Ellis Building – Department of Soil Science, Seminar Series, Marla Riekman, Soil Specialist, Manitoba Agriculture. “TBA”

Wednesday, Mar 15, 12:30 p.m., Room 346 Ellis Building – Department of Soil Science, Seminar Series, Dr. Timi Ojo, Agricultural Meteorology Specialist, Manitoba Agriculture. “Understanding Scale Issues in Soil Moisture Monitoring”

Monday, Mar 20, 1:00 p.m., Room 346 Ellis Building – Department of Soil Science, M.Sc. thesis defense, Kamala Sapkota. “Pesticide Residue in Groundwater and Soil of a Prairie Province in Canada”

### Department Staff Away:

Paul Bullock

Feb 21-22 (Ottawa), Apr 10-24 (vacation)

### News:

*Update on Dr. Abolfazl Hajihassani*

This week, Abolfazl got a Faculty position in Nematology at the University of Georgia. He will be moving there in mid-June. Congratulations!

*Congratulations to all the MSSS Student Presentation Winners*



Last Friday, the Manitoba Soil Science Society gave out awards for best student presentations at the annual conference. Past President, Xiaopeng Gao, is shown presenting the awards in each photo.

(Left) For the first time, there was a three-way tie for first place for best poster presentation. Sirajum Munira (U of M), Geethani Amarawansa (U of M) and Samantha Ritter (NDSU). Each received a \$300 first prize award.

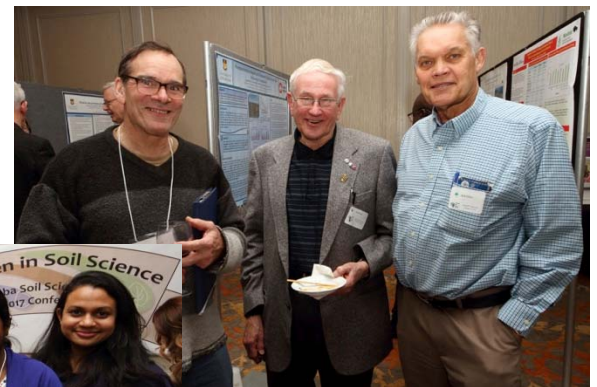
(Lower left) Mauli Gamhewage (U of M) received a \$300 award for best oral presentation.

(Below) Magda Rogalsky (U of M) and Peter O'Brien (NDSU) each received a \$200 award in a tie for the second place oral presentation.



*The 60<sup>th</sup> Annual Manitoba Soil Science Conference was topnotch!*

The feedback and comments about MSSS 2017 were very positive and well-deserved. Congratulations to all the organizers for a job well done!



## *2017 Call for CSSS Award Nominations*

The nomination process is described on the CSSS website at [www.csss.ca/index.php/awards](http://www.csss.ca/index.php/awards). Please take the time to submit an Award nomination for a deserving colleague via e-mail (Word or pdf attachments) to Joann Whalen ([joann.whalen@mcgill.ca](mailto:joann.whalen@mcgill.ca)), Chair of the CSSS Awards Committee before the deadline of **March 10, 2017**.

CSSS Fellow Award - CSSS members with a distinguished record of accomplishment in soil science and service to CSSS.

CSSS Honorary Membership Award - for non-members who have rendered valuable or special service to soil science.

CSSS Soil Science for Society Award - open to members or non-members who have made a significant commitment toward promoting soil science to the general public. The Award winner receives a plaque or certificate recognizing their contribution.

CSSS Pedology Travel Award - provides travel funds (up to \$4000) each year to allow for at least one soil scientist (regular member only) to attend a conference, workshop or meeting related to pedology.

CSSS Student Travel Award - established in 1991 to encourage student attendance at the CSSS Annual Meeting. Graduate students who are CSSS members are eligible to receive this award. The Award is \$600 and a maximum of 12 awards are given each year.

### CSSS Student Presentation Awards

i) The C.F. Bentley Award was initiated in 1983 to encourage and recognize excellence in oral presentations by students at the CSSS Annual Meetings. The Award honours Dr. Fred Bentley who was CSSS President in 1956-57 and inducted as a CSSS Fellow in 1973. The C.F. Bentley Award winner receives \$500, the first runner-up \$300, and the second runner-up \$200.

ii) The President's Award was established in 1992 to foster excellence in student poster presentations as a means of disseminating research results at the CSSS Annual Meetings. The President's Award winner receives \$500, the first runner-up \$300, and the second runner-up \$200.

When submitting an abstract for the CSSS Annual Meetings, graduate students should indicate that they wish to be considered for a Student Presentation Award. Every CSSS student member attending the annual meeting is eligible to enter one (1) poster presentation OR one (1) oral presentation in the Student Presentation Award competition.

CSSS Undergraduate Book Award - recognizes students at Canadian universities who demonstrate excellence in Soil Science at the undergraduate level. Award winners receive a copy of Soil Sampling and Methods of Analysis (2nd Edition), published jointly by CSSS and CRC Press in 2008. Candidates are nominated by their University department.

CSSS-CJSS Student Travel Awards for International Soil Science Meetings - CSSS and CJSS jointly sponsor two annual awards to provide travel funds for student members of CSSS to attend international soil science meetings. The Travel Award for International Soil Science Meetings allows student members to broaden the scope of their work and expand their relationships with soil science researchers outside of Canada. This is expected to build capacity and increase the engagement of students studying soil science at Canadian universities in the international soil science milieu.

## Opportunities:

### **Research Agronomist, National Sunflower Association of Canada, Carman, Manitoba**

#### Job Description:

The successful candidate will lead the sunflower research portfolio and production activities under the guidance of the Executive Director to implement NSAC's strategic plan. Key job areas and responsibilities include trial management and supporting activities related to NSAC's Confection Sunflower Variety Development Initiative and variety performance trials. In addition, the Research Agronomist will provide agronomic and crop production support through several communication outlets directed to producer members and industry representatives.

#### Education and Experience:

University or college degree or diploma or 3 to 4 years of experience with a strong background in agronomy. Knowledge of agronomy research design and field work, and statistical analysis, is an asset, as well as being proficient in Microsoft Suite. Applicants must be eligible for registration or are registered members with the Manitoba Institute of Agrologists.

#### Competencies:

- Knowledge of the sunflower crop highly preferred; training is available.
- Demonstrated knowledge of: crop production/cultural practices; research trial experience and statistical analysis.
- Demonstrated skills in: educating and influencing producers; conflict resolution and handling objections; using computer hardware software/intranet to generate reports; collecting, interpreting & communicating trial results into reports.
- Demonstrated ability to: build/maintain strong relationships with growers, key industry/market influencers, work effectively within a board of directors; lead and influence projects and coach board of directors in developing defined research objectives/goals; communicate the importance and progress of the Confection Sunflower Variety Development Initiative; get results by taking initiative, overcoming obstacles & finding creative solutions.
- The successful applicant should be able to work independently with minimum supervision and operate within budget; work in and adapt to a rapidly changing business environment. Flexible work hours can be negotiated depending on the weekly and seasonal workload for the right candidate.

Send applications to: [darcelle.graham@canadasunflower.com](mailto:darcelle.graham@canadasunflower.com). Apply by **February 15, 2017**.

### **Environmental Agrologist, BC Ministry of Agriculture, Abbotsford, B.C.**

The Environmental Agrologist provides technical and applied research expertise to support the implementation of environmental programs and to assist the Ministry on all aspects of environmental issues pertaining to soil, water, nutrient, chemical and biological processes that govern the environmental sustainability of farming systems. This position offers a competitive salary (\$55,324.97 - \$69,100.38 annually) working in a varied environment with attractive work hours. Working for the public service offers a healthy work/life balance and excellent benefits. Benefits include a professional fees association reimbursement, strong dental and medical plans and much more.

#### Qualifications:

- Bachelor of Science from an approved university specializing in one or more of soil science, soil fertility, horticulture or plant science, production agronomy or a related field.

- Must be registered or immediately eligible for registration as a Professional with the British Columbia Institute of Agrologists.
- Minimum 24 months of work experience in the agriculture sector related to soil science, soil fertility, horticulture or plant science, production agronomy or a related field.

To learn more, including how to apply online by **February 28, 2017**, please visit:

<https://search.employment.gov.bc.ca/cgi-bin/a/highlightjob.cgi?jobid=39088>.

### **M.Sc. and Ph.D. UMGF Awards, Department of Soil Science, University of Manitoba**

New applicants and current M.Sc. and Ph.D. students are encouraged to apply for the 2017 Department of Soil Science University of Manitoba Graduate Fellowship Competition. The award value is \$14,000 per year for a maximum of 2 years for M.Sc. students; and \$18,000 per year for a maximum of 4 years for Ph.D. students. Note that students may only hold the award for the first 24 months of their M.Sc. program or 48 months for a Ph.D. program; students who are currently enrolled must have at least 12 months remaining in their program as of May 1, 2017; new students must become enrolled by January 2018. Students must have a minimum GPA of 3.75 (above B+) at a recognized university based on their last 60 credit hours or equivalent. All students regardless of citizenship are eligible to apply.

Students must submit the following electronically to Martha Blouw, Graduate Academic Advisor, Telephone: 204-474-8223; email: [Martha.Blouw@umanitoba.ca](mailto:Martha.Blouw@umanitoba.ca), by **March 6, 2017**, 400pm:

- Official Transcript of grades from all university programs; University of Manitoba students request student histories from the Registrar's Office (free) to be sent directly to Martha Blouw, 226 Agriculture Building; Current students can provide copies of their original transcripts used for initial admission;
- Letter of Intent describing your educational goals, notional thesis topic area, the name of your thesis advisor, and the date when your program will start;
- A resumé indicating exceptional achievements and demonstration of leadership and experience;
- A 300- to 500-word description of your intended research.
- Letters of reference from two professional referees sent directly from the referee to [Martha.Blouw@umanitoba.ca](mailto:Martha.Blouw@umanitoba.ca).

### **Assistant Professor, Environmental Soil Biogeochemistry, Department of Natural Resource Sciences, McGill University, QC**

The Department of Natural Resource Sciences of McGill University invites outstanding scholars to submit applications for a tenure-track position in Environmental Soil Biogeochemistry at the Assistant Professor level. This is a full-time tenure track appointment with teaching, research and service responsibilities. The appointee will develop a strong, active, externally-funded research program involving undergraduate and graduate students. The appointee will teach courses at the undergraduate and graduate levels.

Collaboration in research and teaching is encouraged with others in the Department, across the Faculty and the University. Service is expected to include demonstrated contributions to the university and scholarly communities, as well as outreach/engagement in the broader community.

Responsibilities: The successful candidate is expected to perform research on the physical, chemical and biological components and processes of soils that control the fluxes of water, contaminants, carbon, nutrients and greenhouse gases from ecosystems. The research program will address soil biogeochemistry in the context of natural and anthropogenic disturbances, such as sustainable agriculture, land use change, pollution from trace metals and persistent organic substances, spatial soil heterogeneity and global climate

change. The selected applicant's record of performance must demonstrate achievement and evidence of outstanding research potential in the area of environmental soil biogeochemistry.

The successful candidate must demonstrate an ability and commitment to teaching excellence in agricultural and environmental sciences at the undergraduate and graduate levels. This position will complement the Department of Natural Resource Science's existing strengths in soil science, agriculture, applied ecology, ecotoxicology, forest and landscape ecology, wildlife and fisheries biology, entomology, microbiology, economics and natural resource policy. The successful candidate should have experience and interest in working with interdisciplinary groups.

Qualifications: The successful applicant will hold a Ph.D. in a relevant field, such as soil science, biogeoscience, applied physical chemistry, vadose zone hydrology, environmental sciences or environmental engineering.

For more information about the Department and Faculty of Agricultural and Environmental Sciences, visit our web sites at: <http://www.mcgill.ca/nrs/department-natural-resource-sciences>; [www.mcgill.ca/macdonald](http://www.mcgill.ca/macdonald).

Applications should include a cover letter, a current curriculum vitae, a research statement that includes achievements and future plans, up to three publications in PDF format, a summary of teaching interests and experience, and letters from three professional references who can evaluate their candidacy for a tenure-track position. The position start date is August 1, 2017. Inquiries about this position may be sent to the Chair of the Department, Dr. Brian Driscoll, [brian.driscoll@mcgill.ca](mailto:brian.driscoll@mcgill.ca). Review of applications will begin on **March 10, 2017** and will continue until the position is filled. PLEASE APPLY ONLINE AT: <https://academicjobsonline.org/ajo/jobs/8829>.

### **Mitacs, Canadian Science Policy Fellowship**

The Canadian Science Policy Fellowship is now accepting applications from prospective fellows interested in undertaking a 12-month policy project with a host government department or agency. Applicants can apply to up to six approved projects in their area(s) of interest.

Eligible applicants must be:

- Faculty members at Canadian universities or PhD graduates
- Canadian citizens or permanent residents
- Able to negotiate a leave of absence from their university or employer, as applicable

The 2017 cohort of fellowships will begin in September 2017. Approved fellows receive remuneration from their hosts and professional development training and networking events facilitated by Mitacs.

Applications will be accepted until **March 14, 2017**, at 5 p.m. PDT. For more information, please visit the [Canadian Science Policy Fellowship](http://www.mitacs.ca) or contact [policyfellowship@mitacs.ca](mailto:policyfellowship@mitacs.ca).

### **International Graduate Student Scholarship (IGSS) for M.Sc. and Ph.D., University of Manitoba**

If you are planning to transfer from a Master's to a PhD program, or to apply to a PhD program for the Summer 2017, Fall 2017 or Winter 2018 term, you are encouraged to apply and must apply by the **April 11th deadline** if you wish to be considered for the IGSS for the 2017 -2018 academic year. Even if you are unsure of what you will do, you are encouraged to submit an application. Late applications will not be considered. [Read more.](#)

**M.Sc./Ph.D. Opportunities, Department of Renewable Resources, University of Alberta, Edmonton, AB**  
Soil carbon-greenhouse gas emissions

Seeking students to fill 2-3 MSc/PhD positions for the following projects.

Project 1: Carbon cycling in agroforestry systems. We aim to understand the controls on carbon storage/sequestration and greenhouse gas emissions in agroforestry systems across different climatic regions in Alberta.

Project 2: Manure and compost management and effects on greenhouse gas and ammonia emissions and crop productivity.

Extensive field work will be involved. The projects offer considerable flexibility in designing research programs that investigate areas of personal interest (to the student) within the overall framework of the projects. The projects are in collaboration with Drs. Edward Bork, Cam Carlyle and Xiyang Hao within the University of Alberta and with Agriculture and Agri-Food Canada (Lethbridge), a group of people with very strong research programs that the students will be interacting with.

Students with educational background/training/experience in biogeochemistry, ecology, soil science, global change biology, forestry or other related areas are encouraged to apply. Selection of students will be based on academic achievements, reference letters and if applicable previous research experience. Strong verbal, written, and analytical skills are essential. Having a valid driver's license and a good driving record would be an asset.

Salary ranges between CAN\$24,000 and \$25,000/year (from a combination of sources) plus graduate student benefits for a period of 2 (MSc) to 4 (PhD) years. It is preferable that successful candidates start their program in summer 2017 or start their laboratory and fieldwork in summer 2017 while applying to the graduate program at the U of A for the fall of 2017 or January 2018.

Interested candidates should e-mail their transcripts (scanned/unofficial), curriculum vitae, a letter describing their research experience and interests (2-page limit), recent TOEFL (minimum of 100 with each section >22 points), or IELTS scores (minimum of 7.0 with each section > 6.0) (those are minimum requirements of the project/lab. group), if appropriate, and the names and contact information of three references to: Dr. Scott Chang, Professor, Forest Soils and Nutrient Dynamics, Department of Renewable Resources, University of Alberta, Edmonton, Alberta, Canada T6G 2E3, Tel: (780) 492-6375; Fax: (780) 492-1767, Email: [scott.chang@ualberta.ca](mailto:scott.chang@ualberta.ca).

## **Events:**

### **2017 Joint Meeting of Canadian Geophysical Union (CGU) and Canadian Society of Agricultural and Forest Meteorology (CSAFM), May 28-31, 2017, Vancouver, BC**

The call for abstracts for the joint meeting in Vancouver in May is now open. Note that there are a couple of CSAFM specific and joint sessions to submit your papers and posters to. For details on abstract submission and other information on accommodations, etc. please see the meeting website: <http://cgu-ugc2017meeting.ca/>. The deadline for abstracts is **February 15**.

## **2017 Canadian Society of Soil Science Annual Meeting, June 4 - 10, 2017, Peterborough, ON**

The annual meeting theme is “Soil and the Environment” and includes sessions on nutrient cycling, soil health, water quality, soil modelling, soil mapping and forest soils. Online abstract submission and registration is now open. For more information on 2017 CSSS Annual Meeting please check the website (<http://csss-conference.ca/2017/>).

Abstract submission deadline: **March 15, 2017**

Early bird registration deadline: **April 15, 2017**

In order to take advantage of the reduced membership rate you must hold a current CSSS membership.

\*\*\*Note for students planning to compete for the CSSS student presentation Awards you MUST hold a current CSSS membership to be eligible.