

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/)

20 April 2018

Upcoming:

Tuesday, May 1, morning – Soil Science annual spring orientation. More details to follow.

Department Staff Away:

Wole Akinremi	Apr 23-May 7
Paul Bullock	Apr 16-27
Lynda Closson	Apr 23
Mario Tenuta	Apr 15-27

News:

4th Annual Crokinole fundraiser in support of orphans in Kinshasa, DR Congo

Tonight, Friday April 20, 2018, at Youth for Christ, 333 King Street (free parking on King St.). Doors open at 6:30 pm, Play at 7:00 pm, \$5 entry fee.

A chance to win door prizes and tournament prizes - Snacks and drinks provided. Come compete for a good cause and if you can't attend you can still help the kids by donating online (www.congoschildren.org, click the donate button and select Congo's Children from the Fund dropdown list) or mailing a cheque. New to crokinole? Check out this video (<https://www.youtube.com/watch?v=0JZrGKn66ml>). Note: tournament rules may differ from the official rules.

Congo's Children raises money to provide orphaned children in Kinshasa with an education, food, and health care. For more information on the home for orphans and street children and Georgette Nyembo, the amazing Congolese woman who started it all, go to www.congoschildren.org.

If possible let Brian Wiebe (Brian.Wiebe2@gov.mb.ca) know if you are coming so there is a rough idea of numbers but walk-ups are welcome.

Paper of the week:

Habibiandehkordi, R; Lobb, DA; Sheppard, SC; Flaten, DN; Owens, PN. 2017. Uncertainties in vegetated buffer strip function in controlling phosphorus export from agricultural land in the Canadian prairies. *Environmental science and pollution research international* 24(22):18372-18382.

Opportunities:

Senior Crown Contaminated Sites Specialist, BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Victoria, Vancouver, or Nanaimo, BC

Salary \$62,983.74 - \$78,666.02 annually

As the Senior Crown Contaminated Sites Specialist, you are a recognized expert in the areas of characterization, assessment and remediation of high risk contaminated sites. Responsible for the management of high risk contaminated sites located on Crown land, you will oversee multi-disciplinary, specialized environmental consultants and contractors on complex remedial projects ranging in value from \$2M to \$100M. You demonstrate critical skills and expertise in contaminated sites, environmental engineering, geosciences, hydrogeology, toxicology, acid rock drainage and metal leaching, and soil science that will be used to assess, recommend and implement appropriate investigation and remedial strategies, and risk management measures to protect public health and the environment.

Qualifications for this role include:

- M.Sc. in engineering or geoscience and three (3) years related experience; OR Bachelors degree in engineering, geoscience or agrology and five (5) years related experience, OR an equivalent combination of education and experience may be considered.
- Full registration, or eligibility for full registration (within 6 months), with the Association of Professional Engineers and Geoscientists of British Columbia or the BC Institute of Agrologists (BCIA).

Related experience must include:

- Professional experience, generally obtained post-registration, ideally in both private and public practice, as a Professional Engineer, Geoscientist or Agrologist in the area of contaminated site investigation, remediation and management.
- Experience with managing multiple complex projects simultaneously, following accepted project management techniques.
- Experience with issues management, negotiation, and strategic problem solving, and providing expertise, and advice in the implementation of solutions to industry clients, internal staff, other agencies, and management.
- Experience providing advice, both written and verbal, to senior management.

For more information and to apply before **May 2, 2018**, please go to:

<https://bcpublicservice.hua.hrsmart.com/hr/ats/Posting/view/49432>.

Community Engagement Fund 2018-2019

The Presidential Advisory Committee on University/Community Engagement is requesting proposals for the Community Engagement Fund (formerly the Major Outreach Award). The maximum level of support is \$5,000 to \$7,000. The general purpose of community engagement is to enlarge and enrich the contacts between the University of Manitoba and all segments of the community through such means as:

1. increasing access to the existing programs of the University;
2. extending the nature and range of the programs and services it offers;
3. sharing more effectively with the community the resources of the University; and
4. drawing on the talent, experience, and resources within the community.

The Community Engagement Fund guidelines and application form are located here: [click](#).

Please note that Deans and Directors are asked to rank proposals for the Community Engagement Fund if there is more than one application from their unit. Deadline for applications: Friday, **May 11, 2018**.

Regulatory Co-ordinator, Interprovincial Cooperative Limited (IPCO), Winnipeg

Interprovincial Cooperative Limited (IPCO), a respected leader in the Agricultural industry, is currently recruiting for a highly organized and driven individual for their Regulatory Co-ordinator position located in Winnipeg, Manitoba. This challenging role would be best suited for a person with previous experience with computer management systems however all interested applicants are urged to apply. Working under the general direction of the Regulatory and Product Development Manager, the Regulatory Coordinator will coordinate the regulatory requirements for IPCO and member-owner products registered under the Pest Control Products Act (PCPA). This involves submissions to the Pest Management Regulatory Agency regarding new product registrations, product re-evaluations and renewals. Regular PMRA submissions include updates/changes to specifications of product formulations and labels (in both official Canadian languages), new uses for crop protection products, incident reports, sales data, and any other information required under the Pest Control Products Act. Responsible for developing, updating and maintaining agrichemical products for IPCO and member-owners. This includes development of specifications for chemical formulations and packaging materials; as well as creative graphic design needed to produce finished products. Ensure IPCO is compliant with municipal, provincial and federal regulatory and environmental regulations and provide agronomic and regulatory training and technical/agronomic support to IPCO staff, members and end users.

Reporting to the Regulatory and Product Development Manager, responsibilities for this position include the following:

- Register, update and maintain agrichemical products with the Pest Management Regulatory Agency to ensure all IPCO products have enhanced market value for IPCO members. Schedule Eastern Canadian products with the Ontario Pesticides Advisory Committee. Work with IPCO Laboratory to determine formulation and MSDS information. Author bi-lingual product labels. Communicate registration activity/status with IPCO management and members.
- Develop finished end-use, registered products for IPCO and member-owners. Determine product volumes and packaging materials specifications to create Bill of Materials for finished products. Design graphics for labels and packaging materials to ensure compliance with the PCPA.
- Design and manage field development programs to test new and improved crop protection products within pre-determined budget. Author research protocols, select research cooperators, coordinate payments, organize crop tours and analyze research data.
- Provide technical and agronomic guidance information to IPCO staff, IPCO members and end-users in the safe and effective use of IPCO products. Design and develop technical bulletins and advisories. Provide updates to Alberta, Saskatchewan, Manitoba and Ontario crop protection guides.

- Conduct research via literature searches and communication with technical manufacturers and formulators to make recommendations for potential registration of new products, uses and formulations
- Ensure IPCO is compliant with all relevant Federal, Provincial and Municipal regulatory environmental regulations
- Adhere to ISO standards and work with all staff on continuous improvement initiatives. Develop and maintain Standard Operating Procedures (SOP) and ISO forms for the quality procedures of the Product Development and Regulatory department. Conduct internal audits of other departments.
- Other duties as assigned.

Qualifications:

The successful candidate will have an Undergraduate or Master's degree in agricultural/biological/chemical sciences with an emphasis on crop sciences and three years practical experience in crop protection agronomy with a preference for agronomics research and experience in Regulatory Affairs. Working background with Multi National Crop Protection Company would be considered an asset. P.Ag. and/or designations in Crop Science Consulting/Advising would be an asset; WHMIS, proficiency in computer technology is essential. A combination of relevant education and experience may be considered.

IPCO offers a competitive salary, ongoing personal and professional development, and the opportunity to work with one of western Canada's most successful organizations.

Deadline: **Mar 18 2018**. APPLY: 401 22nd Street East, PO Box 1050, Saskatoon SK S7K 0H2, Canada.
Human Resources: careers@fcl.crs

Dr. Karl C. Ivarson Scholarship for graduate students in soil and related sciences

This scholarship was created by Dr. Karl C. Ivarson through a gift to the Canadian Foundation for Food and Agricultural Education. The Dr. Karl C. Ivarson Soil Science Scholarship provides financial support to a student entering the second or subsequent year of graduate studies in soil science (in the areas of agriculture, environment, geology, agro-ecology or other related disciplines) at a Canadian university. Candidates must hold Canadian Citizenship or Permanent Residence status in Canada and be enrolled in their graduate program for at least one semester beyond the application deadline.

One scholarship of \$2,000 will be offered in 2018. Scholarships are awarded on the following criteria:

- Academic achievement
- Areas of study
- Leadership
- Career interests
- References

2018 Application Guidelines and Application Form can be found at <http://cffae.ca/ivarson-soils/>. There is also a link to the award on the Faculty External Awards page <http://umanitoba.ca/faculties/afs/awards/externalawards.html>. Deadline for Application – **May 25, 2018**

Banting Postdoctoral Fellowship 2018-19 competition

More information: <http://banting.fellowships-bourses.gc.ca/en/home-accueil.html>

Application deadline: **September 19, 2018**

Postdoctoral Research Associate Position, Soil Microbial Ecology, Agriculture and Agri-Food Canada, Ottawa, ON

A postdoctoral research associate position is available in the lab of Dr. Ed Gregorich, at the Ottawa Research & Development Centre, Agriculture & Agri-Food Canada (AAFC), located in Ottawa, Ontario. This position will work closely with other AAFC researchers including, Drs. David Overy (Ottawa), Bobbi Helgason (Saskatoon), and Henry Janzen (Lethbridge). The research will focus on understanding the role of microbial by-products in the formation of stable soil organic matter (SOM) fractions. Decomposition of plant litter and SOM will be linked to microbial DNA profiling and their chemical biomarkers to characterize the microbial and biochemical processes that transform litter into recalcitrant SOM fractions. The intent is to understand key parts of soil C cycling as influenced by plant litter decomposition and resulting changes on soil microbial diversity, affecting the health and productivity of soils.

The position will include some combination of the following activities:

- assisting with field work at research sites across Canada (Ontario, New Brunswick, Saskatchewan and Alberta)
- conducting and/or coordinating biogeochemical analyses, including ^{13}C stable isotope probing
- DNA and RNA extraction and sample preparation for targeted high throughput sequencing or metagenomics analyses
- mass spectrometry-based metabolomics experiments assessing microbial small molecular weight metabolites
- data analysis and manuscript preparation
- presentation of results at national and international scientific meetings
- assist with lab organization and mentoring graduate and undergraduate students.

The successful candidate must have a Ph.D. with a research focus in soil microbiology, soil science, biogeochemistry, or a closely related field with preference given to those with experience in molecular methods. Preferred candidates will also possess the following attributes: A strong publication record from their Ph.D. (papers published, in press, or submitted); creativity, independence, and the desire to learn new things; excellent communication skills, both written and oral. The position is renewable annually, contingent upon funding and/or job performance. A start date of August 1, 2018 is ideal, but alternative timelines will be considered and should be noted in the cover letter. All questions about the position and application materials should be submitted to: Ed Gregorich (ed.gregorich@agr.gc.ca).

Applications should consist of a single pdf file that includes: a brief cover letter (no more than 2-pages) that highlights past research accomplishments, how your previous experience will benefit this project and your future research goals, a curriculum vitae, names and contact information for three references.

Offres de maîtrises et de doctorat, Université Laval, Ste-Foy, QC

Voici des annonces de postes de maîtrises et doctorat pour le nouveau projet de Chaire-RDC sur la conservation et restauration des sols organiques cultivés qui vient d'être approuvé par le CRSNG (Professeur Jean Caron Université Laval). Veuillez cliquer sur les liens pour obtenir de l'information.

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/f2414471-0441-49b6-acab-99c2da844285/RDC_Conservation_et_Restauration_des_sols_organiques_MSc_Optimisation_implantation_des_cultures_de_biomasses.pdf

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/5454a70d-24fd-4422-897b-b8b90d1573e8/Chaire_Conservation_et_Restauration_des_sols_organiques_MSc_Blocage_de_oxydation.pdf

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/0ac22ca3-a7d4-40a5-8706-a5f57566b6a5/Chaire_Conservation_et_Restauration_des_sols_organiques_MSc_carto_et_besoin_en_amendements.pdf

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/6e83b0e1-684e-4824-b773-0c61b074db78/RDC_Conservation_et_Restauration_des_sols_organiques_MSc_Érosion_sols_organiques_cultivés.pdf

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/fbd1afd5-ae0e-4fc1-a760-76329dc465d3/RDC_Conservation_et_Restauration_des_sols_organiques_PhD_Régie_culture_biomasses.pdf

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Events:

ASA/CSSA 2018 Annual Meeting and Conference, Nov 4-7, 2018, Baltimore, MD

Submit your abstract by **May 22** for the best pricing. Abstracts must be initiated by June 5, but can be edited through August 23. ([click here](#))

Registration and Hotel Reservations are open. More information about the 2018 ASA & CSSA Annual Meeting: acsmeetings.org.

International Soils Meeting, Jan 6-9, 2019, San Diego, CA

April 27 is the final day to submit a special session, tour, or workshop. Professional tours should allow your peers to gain behind-the-scenes access, and workshops should offer hands-on experiences.

Abstract submission, registration, and hotel reservations open May 15. More information about the 2018-2019 International Soils Meeting: sacmeetings.org.

The Canadian Society of Soil Science (CSSS) is pleased to sponsor up to **11 student travel awards**, to a maximum of \$2,000 Cdn each, to provide travel funds for student and post doc members of the CSSS to attend the meeting

Eligibility:

1. Award applicants must be registered at a Canadian University or College and a student or a post doc member of CSSS in good standing at the time of application.
2. Students or post docs must be the presenting author of an oral or a poster presentation describing their thesis/dissertation or current research.
3. The award amount is not fixed and depends on the total reimbursement cost of attending the meeting, to a maximum of \$2,000 Cdn per student.
4. Funds will be awarded to cover costs for registration, travel, accommodation and meals (at the per diem rate of the applicant's institution) and associated fees (e.g., visa, travel insurance). Please note that the amount of the award will be based on the actual cost of attending the meeting; i.e., receipts will be required for registration, accommodation and travel (per diem on actual days travelled and in attendance).

Eligible applicants must submit a one-page letter describing their reasons for attending the meeting and how the meeting will contribute to their growth as a soil scientist. The application must include a budget estimate, containing as much documentation as possible to show the basis for this estimate (e.g. registration fees, accommodation, airfare, etc.) and a copy of the submitted abstract. The applicant's primary supervisor must send a short (one-page) letter in support of the student's application.

Applications should be submitted electronically to the Chair of the Awards Committee (fran.walley@usask.ca). Application deadline is **August 15, 2018**. Awards will be decided by the CSSS Awards Committee, with final approval by the CSSS Council. Applicants will be notified as to their success no later than September 12, 2018.

2018 Joint Meeting of the Canadian Geophysical Union, Canadian Society of Soil Science, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Jun 10-14, Niagara Falls, ON

The following link will take you to the conference registration portal: www.regonline.ca/CGU2018.

There are two additional activities for the meeting.

Pre-Conference 2018 CSSS Soil Tour hosted by the Ontario Ministry of Agriculture, Food and Rural Affairs' Pedology Team: Sun, June 10, 2018 from 8:30 am - 5:00 pm.

Location: Meet Bus at front doors (east facing) Scotia Bank Conference Center, Bus load 8:00 - 8:30. Bus leaves 8:30 sharp. Bus will return and drop off participants at Scotia Bank Conference Centre at 5:00 pm.

Open to 48 conference participants. The tour will be led by OMAFRA pedologists and an Ontario Geological Survey geologist. The tour will follow a transect from the Lake Ontario shoreline to the top of the Niagara Escarpment to highlight the various landforms, soil types and diverse specialty and cash crop enterprises the Niagara Region has to offer. From sandy lacustrine deposits to heavy clays and from cash crops to vineyards, join us as we explore this diverse part of southern Ontario

Cost: \$50 each (covers food and transportation) by check payable to CSSS when boarding the bus (Note: sponsorship is being sought, so cost may be reduced. This will be confirmed on or prior to the tour date).

Mini Monolith Making on Tues, June 12, 2018 from 5:00 -7:00 pm. Open to 40 participants. Room TBD.

Participants will be provided with the materials required to create their own monolith, including the soil. Participants need only register and show up for the event. Making soil monoliths is a great opportunity to

create a lasting souvenir of the CSSS conference, and to learn skills that can be used in future demonstration and education material preparation. In the Mini-monolith workshop, students will learn how to extract a monolith from a soil pit. Each student will have the opportunity to make their own mini soil monolith, learn about soil monolith gluing techniques and tips to capture accurate soil structure and other properties of each soil horizon. The student's mini monoliths will be available for pick up at the Banquet.