

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:

Lynda Closson
University of Manitoba
Room 362 Ellis Bldg
Winnipeg, MB R3T 2N2

Phone: 204 474-8153, Fax: 204 474-7642
Email: lynda.closson@umanitoba.ca
Past issues of the Soiled Profile are now on our
webpage: [umanitoba.ca/afs/soil science/](http://umanitoba.ca/afs/soil%20science/)

19 February 2016

Upcoming:

Wednesday, February 24, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Dr. Annemieke Farenhorst, Department of Soil Science. Title: “Seeking a Fantastic Voyage? My story from cradle to professor”.

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”.

Wednesday, March 9, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Dr. Francis Zvomuya, Department of Soil Science. Title: TBA.

Department Staff Away:

Brian Amiro Feb 24 – Mar 2 (vacation)

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

Please note: For the week of March 7, **Jennifer will be working Mar 7-9 (Mon-Wed) and Terri will be working Mar 9-11 (Wed-Fri) for one week only.**

News:

Inoka's paper will now appear in CSA News Magazine

You may recall that the following paper was highlighted in the January 22 Soiled Profile for being selected by JEQ to be highlighted in press release. It will now be featured in the CSA News magazine. (Amarakoon, I.D., Zvomuya, F., Sura, S., Larney, F.J., Cessna, A.J., Xu, S. and McAllister, T.A. 2015. Dissipation of Antimicrobials in Feedlot Manure Compost after Oral Administration versus Fortification after Excretion. J. Environ. Qual. doi:10.2134/jeq2015.07.0408) Congratulations again!

Paper of the week:

Jeke, N.N., F. Zvomuya, N. Cicek, L. Ross, and P. Badiou. 2015. Biomass, nutrient, and trace element accumulation and partitioning in cattail (*Typha latifolia* L.) during wetland phytoremediation of municipal biosolids. *J. Environ. Qual.* 44:1541-1549.

Judges Appeal

Robert Brown is hoping that you will lend your scientific expertise and concern for the development of young scientists, by helping judge the 2016 Sanofi Biogenius Challenge Poster Display and Competition April 8 at the St Boniface Albrechtsen Research Centre. Judging will be in the afternoon from 1:00 to 4:00. A catered pizza lunch and judge orientation will be available from 12:00 to 1:00; drinks and snacks will be available all afternoon. The number of entrants this year will be about 30 high quality projects, between Grades 9 and 12. (FYI: Grade 9 and 10 projects have won regional competitions in other provinces in the past, even winning the National Competition on 2 occasions.)

If you can help please send a brief reply (Y or N is fine) to brownrj@mymts.net.

If you are currently an SBC mentor, let him know so he can ensure that you won't judge in your mentee's category. SBC information is available at www.biogenius.ca.

Opportunities:

Soil Specialist, Brownfields, Ministry of the Environment and Climate Change, Toronto, ON

Help transform new research and ideas into practical programs, products and services which will ensure Ontario's Environment sector remains competitive and environmentally responsible now and in the future.

You will be required to:

- Provide phytotoxicological speciality services in the assessment of environmental contaminant effects on or risk to terrestrial ecosystems in Ontario, with emphasis on sampling methodologies, pedology, soil:plant relationships and the role of soil as both a receptor and source of environmental contaminants.
- Undertake ecological risk assessments and the development of standards to protect the terrestrial component of the natural environment from contaminant discharges to air, water and land.
- Serve as the Ministry's scientific authority and media contact for all soil health issues and authored reports/publications and to present and scientifically defend the findings when they are challenged by experts representing external stakeholders, concerned citizen's groups, or from other federal and provincial governments during mandatory consultation or via legal action.

Qualifications:

- You should have demonstrated experience in scientific theory and research methodologies relating to the study of adverse effects of environmental contaminant stresses on terrestrial ecosystems with emphasis on soil chemistry, geomorphology, pedology, soil:plant relationship and cartographic techniques.
- You should have sound knowledge of the Environmental Protection Act, the Environmental Assessment Act and applicable waste, water and air regulations, policies and guidelines and their application to environmental effects on terrestrial ecosystems.
- You have skills in the use of word processing, spreadsheet, relational database, spatial interpolation, internet and other microcomputer applications

- You must possess a valid Ontario driver's license to carry out field assignments and maintain appropriate safety oriented first aid training required to operate government vehicle.
- You have the ability to statistically analyze (via microcomputer software program) and interpret data collected by scientific investigations or assessments
- You have the ability to clearly communicate orally and in the preparation of scientifically valid and authoritative final reports for publication and presentation to a wide audience,
- You have the ability to work with minimal supervision and with few available precedents, and to represent the Ministry in a scientific and professional manner

How to apply:

- Apply online (<https://www.gojobs.gov.on.ca/Apply.aspx?Language=English&JobID=89364>)
- Your cover letter and resume combined should not exceed five (5) pages. For tips and tools (<https://www.gojobs.gov.on.ca/Docs/OPS%20Cover%20Letter%20and%20Resume%20Writing%20Guide.pdf>).
- Customize your cover letter and resume to the qualifications listed on the job ad. Using concrete examples, you must show how you demonstrated the requirements for this job.

Salary: \$1,499.29 - \$1,974.35 Per Week. Deadline: **Friday, February 26, 2016 11:59 pm EST**

Farmer Engagement Manager, Western Canada, Yara, Home-based in either SK or MB

Yara's Western Canadian Region extends through Saskatchewan and Manitoba. By working with Yara's Regional Sales Managers and selected customers, this position will support the implementation of Yara's Farmer Centric Strategy with a strong focus on field activity. Developing interaction with key farmers in select geography and crops, facilitating the delivery of Yara's message to end users and working with field personnel from select dealer customers to maximize and multiply efforts and results will drive success for this position. It will also involve testing concepts, products and services with farmers, and proposing initiatives that augment Yara's brand exposure and recognition at the grower level.

Responsibilities:

- Participate in the generation of short/mid-term business, through the interaction with farmers and selected customers, engaging in the commercial development of the region
- Assist Regional Sales Managers in specific marketing and technical related activities, developing opportunities for market differentiation via technical knowledge sharing of Yara's "value added" products
- Develop relationship with field personnel from key select distributors and intensify Yara's presence at grower level in partnership with such personnel
- Develop a portfolio of key farmers in the region, granting more direct access to Yara in the delivery of key messages and programs. Develop and utilize a farmer database to allow technical and marketing messages to be delivered
- Collaborate with Regional Sales Managers on crop segmentation activities, based on knowledge of the territory
- Promote Yara's crop nutrition programs and services with intense use of field calls, field days, demonstration plots, testimonials, as well as any other tool available
- Provide a deep level of technical expertise and field feedback in select crop from the growers point of view. Provide territory/field intelligence related to programs and trends, delivering reports on specific noteworthy events or crop conditions

Qualifications:

- Bachelor degree in Agronomy or Ag related field. CCA (Certified Crop Advisor) is preferred
- 3-5 years working experience in technical/commercial positions in similar industries and territory
- Strong business orientation and product knowledge
- Strong organization and planning skills
- Strong communication and presentation skills
- Strong customer service skills
- Proficient in MS office, especially Excel and PowerPoint

This position requires registration with the Agrologists Institute in Saskatchewan and Manitoba. The position will be home based within Saskatchewan or Manitoba. It will involve extensive travel requiring a valid driver's license.

Please apply online (<http://www.yaracanada.ca>) on or before **February 26, 2016**.

Terrestrial Effects Scientist, Ontario Ministry of the Environment and Climate Change, Etobicoke, ON

This is a unique opportunity for an innovative environmental professional to provide scientific expertise and leadership in the design, conduct and interpretation of vegetation and soil surveys, monitoring programs and special studies that assess and communicate the impacts of environmental contamination and/or other environmental stressors on vegetation health (plants, trees, crops) and soil quality.

- Lead the design and conduct of complex vegetation and soil surveys, monitoring programs, and/or special studies to assess and communicate the impacts of environmental contaminants and/or other environmental stressors on vegetation health (plants, trees, and crops) and/or soil quality
- Prepare technical reports summarizing vegetation or soil surveys, monitoring programs, and/or special studies
- Review and provide feedback/recommendations on the vegetation and soil components of third party assessments/surveys, monitoring programs, special studies, and/or risk assessments
- Provide expert advice, technical and scientific information to ministry staff, senior management, the public, consultants, academia and related industry stakeholders
- Lead a team of scientific/technical peers on special projects to obtain soil and vegetation related data in support of the ministry's standard setting and guideline development programs
- Identify scientific knowledge gaps in our understanding of the effects of environmental contaminants and other environmental stressors on vegetation health and soil quality that warrant further study and suggest procedures and protocols to implement special studies

Mandatory Qualifications:

- You have a valid Ontario Driver's License (Class G) to conduct field work as required
- You have the ability to conduct field work, including field work that may involve multiple days in remote locations and/or involve difficult terrain

Technical Knowledge:

- You have comprehensive knowledge of and are able to apply the theories and principles of plant science (e.g. plant physiology, phytotoxicology) and soil science
- You have direct relevant experience assessing and interpreting the effects of environmental contaminants and/or other stressors on soil quality and vegetation health (i.e., plants, trees, crops)

- You know the cause-effect relationships between environmental contaminants/stressors and vegetation and soil endpoints of concern to Ontario
- You know the implications of plant air pollution sensitivities and pollution injury symptoms

Investigative, Risk Assessment, and Legislative Knowledge

- You have knowledge of investigative theory, protocols and methodologies to design and conduct complex, innovative soil and vegetation surveys, monitoring programs, or special studies
- You have the ability to provide expert advice on the soil and vegetation components of Environmental Assessments, risk assessments and third party soil and vegetation surveys and/or monitoring programs
- You understand the principles, concepts, and approaches associated with risk assessment and management
- You can properly apply relevant policies, regulations (e.g., O. Reg. 153/04 – Record of Site Condition), guidelines (e.g. Upper Limits of Normal, Ontario Typical Range, soil remediation guidelines), standards and legislation (e.g. Environmental Protection Act, Environmental Assessment Act)

Statistical, Data Analysis, and Computer Knowledge

- You have theoretical and practical knowledge of statistical methods, data modelling, data analysis, sources and types of analytical error/uncertainty and associated computer applications/tools
- You have experience using common computer systems and software, including word processing, spreadsheet, presentations, scientific graphing, statistical packages, and mapping programs (e.g., ArcGIS)

Leadership, Project Management, and Analytical Skills

- You demonstrate highly developed leadership and project management skills to initiate, lead and/or oversee projects and special studies
- You can assess the scope of environmental emergencies or unique scientific problems and resolve them
- You can evaluate and analyse complex scientific information involving multiple, interrelated and interdependent components

Communication, Relationship Management, and Organizational Skills

- You can communicate highly technical information in a clear and logical manner to non-scientific and technical audiences
- You can develop a variety of written products such as scientific reports, peer-reviewed journal articles, proposals, briefings, standard operating protocols/methods and study plans/designs
- You have highly developed stakeholder relationship and interpersonal skills to represent the ministry on inter and intra-ministry working groups and to work effectively with internal staff, other ministry areas, and the public
- You have the ability to effectively plan, organize, and manage time to accomplish multiple requests within competing deadlines

Salary Range: \$1,338.21 - \$1,698.50 per week

Please apply online, only, at www.ontario.ca/careers, quoting Job ID 89636, by Wednesday, **March 9, 2016**. Please follow the instructions to submit your application. Faxes are not being accepted at this time.

Business Development Specialist, Mitacs, Winnipeg, MB

Mitacs is now hiring for a Business Development Specialist role in the Winnipeg office. The position will be jointly funded by Mitacs and Western Canadian Innovation Offices (WCIO) and is exclusively available at the University of Manitoba. Recently completed PhD students are being sought, ideally within 1 - 2 years of graduation and preferably from the University of Manitoba. Excellent communication and presentation skills are required. This position is available only at the University of Manitoba.

For more information about this position and the link to the online application platform:

<https://mitacs.bamboohr.co.uk/jobs/view.php?id=63>.

Events:

**Manitoba Institute of Agrologists, Annual General Meeting and Professional Development Day, April 14,
Portage la Prairie, MB**

Save the date. Details to follow.