

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 on our
webpage: [umanitoba.ca/afs/soil science/](http://umanitoba.ca/afs/soil%20science/)

23 March 2018

Upcoming:

Wednesday, Mar 28, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Assem Abu Hatab, Assistant Professor, Food & Agricultural Economics Group, Swedish University of Agricultural Sciences. Title: Urban Sprawl, Food Security, and Agricultural Systems in Developing Countries: A Systematic Review of the Literature.

Thursday, Apr 5, 2:00 p.m., Room 346 Ellis Building – Department of Soil Science, M.Sc. thesis defence, Melody Caron. “Integration of Sediment Fingerprinting Techniques and Sampling Approaches within a Prairie Watershed in Southern Alberta”.

Wednesday, Apr 11, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Said Nawar, Postdoctoral Fellow, Department of Soil Management, Ghent University, Belgium. Title: Proximal soil sensing for variable rate nitrogen fertilisation.

Department Staff Away:

Paul Bullock

Apr 16-27

News:

Reminder – Summer Registration

Graduate students, please register for:

GRAD 7000 Master’s Thesis (CRN 1598) and GRAD 7020 Master’s Re-registration (CRN 1600)

or

GRAD 8000 Doctoral Thesis (CRN 1603) and GRAD 8020 Doctoral Re-registration (CRN 1605)



Excellent 3MT Final

The 3MT final was held on March 21. Megan Bourns was in the competition among a group of 13 graduate students from faculties across the U of M. The 3-minute presentations were all excellent. Although Megan did not receive an award, her achievement was outstanding. She made us all proud to be Soil Scientists (“Feed the soil, Feed the world”). Congratulations!

Project in Agroecology (AGEC 4550) Final Oral Presentations

Friday March 23 at 2:30pm, Ellis Building Room 344. Everyone Welcome! Seminars describe the Fourth-Year Thesis Projects of our Agroecology Students. Each talk is a maximum of 15 minutes (13 minute target), followed by a 5-minute question period. Pizza and Refreshments following the seminars.

Time	Topic	Speaker	Advisor
230pm	General Introduction		
235pm	Testing Soil Pre-treatment Handling Techniques for Total Phosphorus in Wetland Soils	Lindsey McKenty	Dr. David Lobb (Soil Sci.)
253pm	Ecosystem Impacts of Autonomous Chicken Coops	Carley VanOsch	Dr. Brian Amiro (Soil Sci.)
308pm	Four Crops Grown in Manitoba and the Nitrogen Use Efficiency	Samuel Steinmann	Dr. Mario Tenuta (Soil Sci.)
326pm	Suitability of Seven Annual Crops for Stockpile Grazing on the Canadian Prairies	Zack Koscielny	Dr. Emma McGeough (Animal Sci.)
344pm	Study of Competitiveness Between Reed Canary Grass and Purple Loosestrife in a Replacement Series	Zijing Guo	Dr. Rob Gulden (Plant Sci.)
405pm	Wrap-up and refreshments		

Faculty of Agricultural and Food Sciences Awards is now in UM Learn

A new, user-friendly awards page is being launched through UM Learn. To access the awards page, log into University of Manitoba UM Learn, using your username and password, and then select Faculty of Agricultural and Food Sciences Awards 022018 from your list of courses.

Information such the Terms of Reference, upcoming deadlines, external scholarships, etc. can be accessed through the Content Browser section. Awards currently open for competition can be found under the path Assessments/Assignments where you can see the due date and access the application form for each. Note, the next batch of applications are due **April 1st, 2018**.

Email notifications regarding awards that are open for competition will continue but applications will be through UM Learn rather than the agawards email. Any questions, concerns or suggestions to improve the site can be sent to Marisol Soto, Student Awards Coordinator, Faculty of Agricultural and Food Sciences (agawards@umanitoba.ca).

Science Co-op Program

The Science Co-op program at the University of Manitoba is currently accepting job postings for the summer 2018 work term, and have a pool of job-ready co-op students from the following programs who are actively in search of positions this summer:

Biochemistry – 2, Biotechnology – 1, Genetics – 5, Microbiology - 5

If you have an open opportunity this summer (and/or fall), please share your job description. More information: <https://umsciencecoop.weebly.com>. If you have any questions, contact Riya Timpog, Co-op Coordinator, Faculty of Science, 204-474-7396, Riyalyn.timpog@umanitoba.ca.

Paper of the week:

Kamula, CM; Kuzyk, ZZA; **Lobb, DA**; Macdonald, RW. 2017. Sources and accumulation of sediment and particulate organic carbon in a subarctic fjord estuary: Pb-210, Cs-137, and delta C-13 records from Lake Melville, Labrador. Canadian journal of earth sciences 54(9):993-1006.

Opportunities:

On-Farm Technician, Manitoba Pulse & Soybean Growers, Carman, MB

MPSG is looking for an On-Farm Technician to assist with On-Farm Network field trials.

Specific activities:

- Assisting with the set-up and monitoring of On-Farm Network field trials
- Assisting with the collection, entering and summarization of data, such as soil samples, tissue samples, plant counts and disease ratings
- Assisting with soybean and pulse crop disease surveys and sample collection
- Assisting with extension events throughout the summer

The purpose of this position is to assist MPSG in successfully conducting On-Farm Network field trials. This is a unique opportunity to be involved in the on-farm research process while visiting a variety of farms across Manitoba. You will be part of a dynamic research and production team, gaining knowledge on soybean and pulse production, research and extension events.

Qualifications:

- Agriculture degree or diploma program at a recognized post-secondary institution, preferably in the areas of agronomy, agribusiness or agroecology
- Strong understanding and familiarity with prairie agriculture and agronomic practices
- Motivated self-starter with excellent organizational skills and attention to detail
- Interest and enthusiasm to network and communicate with others
- Positive and team-oriented attitude
- Valid Manitoba driver's license

Full-time permanent position, based in Carman, MB, requires extensive travel throughout the province. Please email resume and cover letter to: Dr. Daryl Domitruk, P.Ag., Director - Research and Production, MPSG, daryl@manitobapulse.ca. Deadline: **March 31, 2018**.

William Wilson Muir Graduate Fellowship

The purpose of this fund is to support graduate students working in a research-based graduate program focusing on agronomy in the Faculty of Agricultural and Food Sciences. One fellowship is offered to a graduate student who:

- (1) is enrolled full-time in the Faculty of Graduate Studies, in a M.Sc. or Ph.D. degree program delivered by a department in the Faculty of Agricultural and Food Sciences;
- (2) has obtained a minimum grade point average of 3.5 (or equivalent) based on the last 60 credit hours of study;
- (3) submits an application which consists of a one to two page (maximum 500 words) description of their research interest;
- (4) submits a letter of support from their graduate supervisor or proposed graduate supervisor.

Deadline: **April 2nd, 2018**. Application forms and eligibility criteria are on the new UM Learn site.

Student Affairs Participation Award, University of Manitoba

Purpose: To recognize and encourage students at the University of Manitoba who maintain high academic achievement while demonstrating exceptional leadership qualities in making a significant voluntary contribution to the university and/ or broader community.

Value: One award of \$975.00. Deadline: Friday, **April 6, 2018**.

Candidates must:

- (1) have completed courses constituting at least a first full year of a program of study at the University of Manitoba with a minimum cumulative grade point average of 3.5;
- (2) be enrolled as a full-time student (60% course-load) in the year in which the award is tenable;
- (3) verify active participation in the university and/or broader community, in activities such as, but not limited to, university governance and committees, the arts, music and athletics.

If you have any questions about the process or would like a nomination form, please contact Mandy Laing (Awards Selection Coordinator) at 474-9388, or via email at Mandy.Laing@umanitoba.ca. Submit forms to: Financial Aid & Awards Office, Room 422, University Centre Building, University of Manitoba, Winnipeg, Manitoba, R3T 2N2, Attn: Maria Roy, Email: maria.roy@umanitoba.ca.

Nutrient Management Specialist, HyLife Ltd., La Broquerie, MB

Responsibilities:

- Facilitating activities associated with filing of manure management plans including fertilizer recommendations
- Ensure all activities meet or exceed all regulatory requirements
- Coordinate soil sampling and manure application activities
- Manage soil and land databases (ArcGIS)

- Provide technical support for environmental stewardship and regulatory requirements
- Assist in the development and delivery of Nutrient Management programs
- Develop and maintain a strong working relationship with regulatory agencies
- Special projects and duties as assigned

Qualifications:

- Strong communication skills
- Bachelor of Science in Agriculture or equivalent education or experience
- Eligibility for membership in the Manitoba Institute of Agrologists or CCA accreditation would be considered an asset
- Strong background in soil science and agronomy
- Ability to communicate with farmers as well as local and Provincial governments
- Strong organizational skills
- Proficiency with Microsoft office suite and ArcGIS would be considered an asset
- Agricultural background would be considered an asset

Comprehensive benefits package and competitive compensation offered based on experience and knowledge. HyLife has been recognized as a Platinum Member of Canada's Best-Managed Companies.

Apply online at www.hylyfe.com/current-opportunities.

Graduate Student Positions, Soil Ecology Laboratory, Department of Soil Science, Univ. of Manitoba

The laboratory for Applied Soil Ecology at the University of Manitoba (<http://soilecology.ca/>; Twitter @soilecologyUMan) is seeking highly motivated and talented candidates for training leading to MSc or PhD degrees. The Lab is very active in soil ecological research with state-of-the-art facilities and a diverse array of multidisciplinary projects in crop nutrient management, plant disease management, and soil ecology of major field and horticultural crops in Manitoba. The laboratory employs 4 permanent technicians, and routinely 2-3 research associates, 5-10 graduate students, and 10-15 summer students/term technicians. The University of Manitoba is in the City of Winnipeg, with a vibrant metro area of 750,000 people and is less than an hour by car to Prairie, Boreal and Canadian Shield landscapes, and the U.S.A. Positions are available starting April 2018 to April 2019. The Applied Soil Ecology Laboratory is committed to a training environment with gender equality and encouragement of participation of First Nations and Metis peoples and minorities.

Plant Parasitic Nematode Management

Students will undertake graduate research to understand host and environmental preferences, yield damage, and control strategies of plant-parasitic nematodes in the Canadian Prairie Provinces. The nematodes to be examined include members of the genus *Ditylenchus* and *Pratylenchus*. Crops examined include major field, pulse and horticultural crops grown on the Canadian Prairies. The research involves microscopic and molecular identification of nematodes. Candidates will have excellent oral and written skills in English and have completed a 4-year equivalent BSc in the agricultural or natural sciences. Students with experience in nematology are encouraged to apply. Candidates will have excellent oral and written skills in English and have completed a 4-year equivalent BSc in the agricultural or natural sciences. Salary is \$18,500/yr for two years to MSc students and \$21,000/yr for four years to PhD students. Students who already have scholarships are encouraged to apply as a top-up salary is available to them. The training is funded by several government and industry sources to projects lead by the Applied Soil Ecology Laboratory. For more information on this opportunity please send a detailed CV, statement of relevant

experience, availability, and list of three referees by email to Dr. Mario Tenuta, Professor of Applied Soil Ecology, mario.tenuta@umanitoba.ca, please use the subject heading “Graduate Studies Nematology”.

Potato Early Dying Management

Students will undertake graduate research to limit yield losses from the disease, Potato Early Dying. Field research will be conducted examining treatments including fungicides, green manures, compost, and fumigation to reduce levels of the pathogen, *Verticillium dahliae* in soil, and farm surveys of disease incidence, yield and pathogens. Candidates will have excellent oral and written skills in English and have completed a 4-year equivalent BSc in the agricultural or natural sciences. Students with experience in plant pathology are encouraged to apply. Salary is \$18,500/yr for two years to MSc students and \$21,000/yr for four years to PhD students. Students who already have scholarships are encouraged to apply as a salary is available to them. The training is funded by several government and industry sources to projects lead by the Applied Soil Ecology Laboratory. For more information on this opportunity please send a detailed CV, statement of relevant experience, availability, and list of three referees by email to Dr. Mario Tenuta, Professor of Applied Soil Ecology, mario.tenuta@umanitoba.ca, please use the subject heading “Graduate Studies PED”.

4R Nitrogen Management and Reduction in Nitrous Oxide Emissions

Students will undertake graduate research examining 4R Nitrogen Fertilizer Management (right source, rate, timing and placement) on canola or grain corn agronomy and N use efficiency or emissions of the greenhouse gas, nitrous oxide (N₂O). Treatments examined include the range of currently available enhanced efficiency N fertilizers as well as products under development as well as in-crop N application practices including developing passive and/or active spectral sensor approaches to optimize N application rates. Candidates will have excellent oral and written skills in English and have completed a 4-year equivalent BSc in the agricultural or natural sciences, or engineering. Candidates with experience in production agriculture are encouraged to apply. For more information on this opportunity please send a detailed CV, statement of relevant experience, availability, and list of three referees by email to Dr. Mario Tenuta, Professor of Applied Soil Ecology, mario.tenuta@umanitoba.ca, please use the subject heading “Graduate Studies 4R”.

Cover Crop Agronomy and Increased Crop Nitrogen Use Efficiency

Students will undertake graduate research in the area of development of cover cropping systems in the Red River Valley region of Manitoba and benefit to fertilizer nitrogen use efficiency of crops. Benefits to be examined include reduced emissions of the green house gas nitrous oxide (N₂O), lowered residual fall soil nitrate tests, and improved coincidence of nitrogen mineralization and crop uptake. Candidates will have excellent oral and written skills in English and have completed a 4-year equivalent BSc in the agricultural or natural sciences, or engineering. Candidates with experience in production agriculture are encouraged to apply. For more information on this opportunity please send a detailed CV, statement of relevant experience, availability, and list of three referees by email to Dr. Mario Tenuta, Professor of Applied Soil Ecology, mario.tenuta@umanitoba.ca, please use the subject heading “Graduate Studies Cover Crops”.

Events:

2018 ASA & CSSA Annual Meeting, Nov 4-7, Baltimore, MD

Abstract Submission is now open for the 2018 ASA & CSSA Annual Meeting. **Submit by May 22** to save money; final deadline to submit is June 5. [click here](#)

Want to make your abstract more compelling? Watch a free webinar! [click here](#)

Interested in a compact style of presentation? Check out 5 Minute Rapid Presentations. [click here](#)

Registration ([click here](#)) and Hotel Reservations ([click here](#)) are also open.

Learn more about the 2018 ASA & CSSA Annual Meeting: acsmeetings.org.