

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/

17 February 2017

Upcoming:

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

Feb 21-24 – Term break. No classes. Also no technician’s meeting during the term break. The next technician meeting will be Monday, February 27 at 9:30 a.m.

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:

Paper of the week:

Manimel Wadu, M., Goh, T.B., Akinremi, O.O. 2016. Response of Manitoba soils to banding phosphorus with sulphate or carbonate salts. *Canadian Journal of Soil Science* 96: 447 – 460.

Correction to the MSSS Student Presentation Winners



The three-way tie for first place for best poster presentation was between Sirajum Munira (U of M), Geethani Amarawansa (U of M) and Samantha Croat (NDSU). We had previously reported Samantha Ritter in error.

Congratulations again.

Opportunities:

Technician 5, Field Research Facility and Equipment Manager, Dept of Soil Science, U of Manitoba

Full time: 35 hours per week, Salary (Hourly) \$25.84 - \$34.42, Salary (Annual) \$47,028.80 - \$62,644.40

SKILLS AND ABILITIES:

- Effective communication skills required.
- Strong organizational skills required.
- Advanced knowledge of mechanics, transport regulation and safety certification required.
- Ability to plan, organize and administer projects required.
- Must be able to work within time and budget constraints.
- Ability and willingness to learn about new equipment and techniques required.
- Ability to keep abreast of developments in the area of expertise required.
- Ability to work both independently and as part of a team required.
- Must be capable of training and supervising staff and students.
- Ability to calibrate, operate, trouble-shoot, diagnose and repair field equipment when necessary.
- Class 3 driver's licence required.
- WHMIS training required.

Key Responsibilities

- Calibrate, modify, set up and advise on the acquisition of specialized agricultural research field equipment.
- Undertake and/or facilitate routine repair and maintenance of department field equipment and vehicles.
- Coordinate field equipment and department vehicle registration, booking and use.
- Liaise with other university, provincial and federal departments to share and coordinate inter-departmental field equipment usage for situations where it is more efficient and cost-effective.
- On a project basis, coordinate aspects of work for installations, renovations or new construction including budget allocation, tendering, providing specifications and supervising work.
- Ensure all facility areas are maintained and functional.

- Coordinate the booking and use of all soil and plant sample processing, growth chambers and storage facilities.
- Ensure that field supplies are maintained at an adequate level.
- Liaise with the department safety officer to ensure safe working practices in all aspects of department field work.
- Train summer students, graduate students, technicians and other users in the safe and proper procedures for utilizing the department's field research equipment.
- Oversee the field work-related health and safety certification requirements of staff and students including special. driver's licenses, field operation and product application licenses, transportation of dangerous goods and safe, secure storage of hazardous materials in the field work facility.
- Advise on field biosecurity protocols, coordinate their deployment and enforce them among all department field personnel.
- Support the field trips and field projects that are part of the courses offered by the department through student instruction, coordination of logistics and organizing field supplies and equipment as needed by the instructors.
- Advise the department and propose solutions on field research equipment, facility safety and other related issues.
- Assemble log book information for field equipment and vehicle use.
- Plan and establish field study sites and research plots.
- Collect and analyze research data, write research reports.

To apply: [click here](#). Deadline: **February 28, 2017**.

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, 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.

Dr. Karl C. Ivarson Soil Science Scholarship, University of Manitoba

Financial support for 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. The 2017 Application Guidelines and Application Form can be found at www.aicfoundation.ca/ivarson-soils/. Deadline for Application – **March 27, 2017**.

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.](#)

Ph.D. Opportunities, School of Environmental Sciences, University of Guelph, Guelph, ON

Seeking students to fill 2 PhD positions for “Riparian buffer plantings: An agroforestry land-use for multiple benefits including greenhouse gas mitigation in Canadian agricultural systems”.

This multidisciplinary study involves researchers from the Universities of Guelph, Waterloo, Toronto and Sherbrooke, as well as extension specialists associated with partnering NGOs that have the capacity to execute technology transfer to the agricultural sector. It will engage world-renowned extension agencies including the Grand River Conservation Authority, the Ontario Soil and Crop Improvement Association, and the Biomass North Development Centre.

Position #1: Characterizing the variability and dynamics of soil hydromorphism within riparian agroforestry systems ecosystems. This research will involve the application of infield multi-temporal surveys using geophysical proximal sensors, as well as laboratory determination of soil magnetic susceptibility and the characterization of iron oxides.

Position #2: Characterizing the variability and dynamics of topsoil structure within riparian agroforestry systems ecosystems. This research will involve multi-temporal infield assessment of soil morphology, as well as the collection of intact cores for quantitative characterization of structure using high-resolution x-ray computed tomography.

Applicants will be assessed on academic background and performance, prior research experience and expertise, as well as indications of self-motivation and ability to work in groups. Strong mathematical, as well as written and verbal communication skills are required. While standard stipend support is available, and students would be eligible for complementary internal scholarships and teaching assistantships, applicants are also encouraged to apply for relevant external awards. Instructions for application to the graduate program are available at: www.uoguelph.ca/graduatestudies/future/applying-guelph.

For further information, interested individuals should contact: Dr. Richard J Heck, School of Environmental Sciences, University of Guelph, 50 Stone Road East, GUELPH, Ontario, N1G 2W1, Tel: 519-824-4120 x52450, Email: rheck@uoguelph.ca, Cell 519-546-9032, Fax 519-824-5730, www.uoguelph.ca/~rheck.

Events:

MCWESTT 2017, May 5, Winnipeg

MCWESTT 2017 is a local, one-day conference dedicated to connecting women in engineering, science, trades, and technology, and empowering them to Create, Foster, and Lead. Master of Ceremonies for the day will be Winnipeg based comedian Dana Smith, and keynote speakers include Susan Auch, Shari Graydon and Sarah Neville. Register before Friday, March 10th to receive the limited-time early bird pricing (<https://apps.apegm.mb.ca/MCWESTT2017Registration.aspx>). For the first time ever, MCWESTT 2017 is offering a full day pre-conference workshop on Thursday, May 4. The WinSETT Effective Communication workshop will be facilitated by Edna Dach with guest speakers Trish Jordan and Dawn Nedohin-Macek. Thanks to the generous partnership of the NSERC Chair for Women in Science and Engineering - Prairies, this workshop is available at a significantly discounted rate of only \$75, exclusively for our conference participants. Be sure to register early as the workshop is limited to only 30 participants. <http://hollettandsons.ca/winsett-leadership-program/>.

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**