

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/

16 June 2017

Upcoming:

Friday, July 7 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 6:00 p.m.**

Department Staff Away:

Lynda Closson	June 30-July 24 (vac)
Wole Akinremi	June 10-15 (CSSS), June 16-17 (vac)
Brian Amiro	June 19-21 (vac), June 26-27 (vac), July 4-7 (vac)
Paul Bullock	July 10-18 (vac)
Don Flaten	June 27-28 (Toronto), July 3-7 (vac), July 17-20 (Minnesota)
Mervin Bilous	June 26-July 12 (vac)
David Lobb	Sabbatical July 01 – December 31, 2017
Mario Tenuta	Sabbatical July 01 – December 31, 2017

News:

Magda’s defence

Magda Rogalsky successfully defended her M.Sc. last Friday. Congratulations!

Newdale is not just our provincial soil!

Newdale, our provincial soil, was named after the town of Newdale, Manitoba. The town is holding a community event day to mark the unveiling of a sign commemorating Newdale as the home of Manitoba’s provincial soil on Saturday, June 17th at 2:00 p.m. There are several events planned throughout the day including a pancake breakfast from 8:00 to 10:00 a.m., a BBQ lunch from 11:30 a.m. to 1:30 p.m. and yard sales throughout the town. Everyone is welcome!

Paper of the week:

Valiunas JK, **Tenuta M**, Das G. 2016. A Gas Cell Based on Hollow-Core Photonic Crystal Fiber (PCF) and Its Application for the Detection of Greenhouse Gas (GHG): Nitrous Oxide (N₂O). Journal of Sensors. <http://dx.doi.org/10.1155/2016/7678315>.

Shed Cleanup

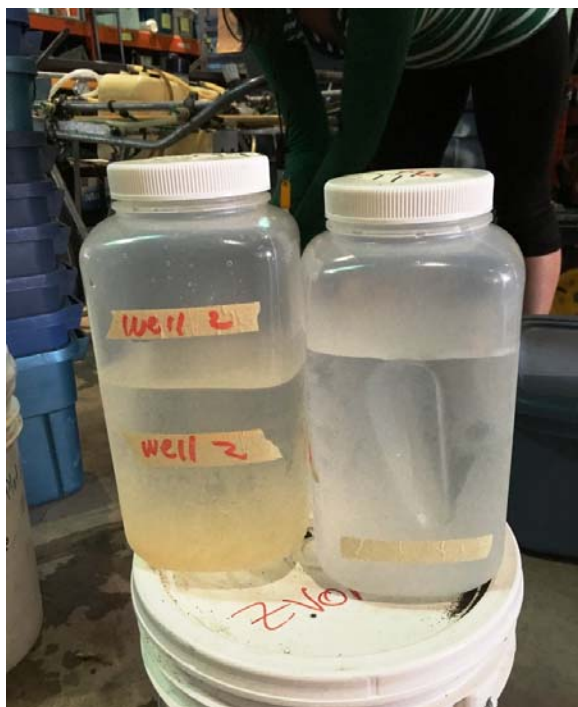
A big “thank-you” to everyone who organized and worked on the annual shed cleanup. It was a very successful endeavour.

As usual, we have some followup on samples and items. During the shed cleanup, we threw away a number of samples that were not labelled properly and which were not claimed by any of the research groups. However, some “mystery” samples have been temporarily spared from being thrown out ... but they will be disposed of if they are not claimed and properly labelled and stored by next **Thursday, June 22nd**.

The mystery samples include the following from just inside the door to the walk-in cooler:



- a mystery sample of something ... Morgan biosolids, soil, vegetation?

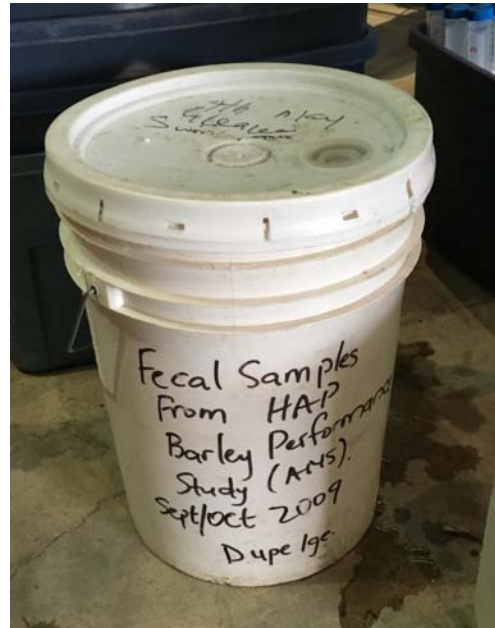


- 2 large unlabeled containers with large water samples



- a Rubbermaid tub full of Falcon tubes that contain what look like small water samples

- a 20 L pail labelled fecal samples that appears to be soil



- a 20 L pail with an obsolete label for beef manure that appears to contain soil

The mystery samples also include the following from along the west wall of the cold part of the shed:



- a tub with an old label of "Akinremi" ... full of unlabeled air dried soil samples in small containers

Proper identification of all soil, plant and water samples is essential, especially in a shared facility such as the Soils Shed. That means that every sample and every large container of samples should be labelled with the principal investigator/professor, student's last name, date and sample description. If any of the above are your samples, please claim and properly label and store them ... otherwise, they will be thrown out next week. And please make sure that everyone in your research group labels their samples and sample containers during the rest of this busy field season.

Opportunities:

PhD Opportunity, Dept of Plant, Food, and Environmental Sciences, Dalhousie University, Truro, NS

Examination of the temporal patterns in soil nitrogen supply, nitrogen loss potential and the role of ammonium and nitrate exposure in documenting the risk of nitrogen loss.

Supervisor: Dr. David Burton

Project Description: The potential for N loss as a greenhouse gas (N₂O) or through NO₃⁻ leaching to groundwater is dependent on the degree to which NO₃⁻ accumulates in the soil profile, particularly during periods of high soil water content (spring and fall). The accumulation of NO₃⁻ in the soil profile is a result of the asynchrony of nitrogen supply (N mineralization + N fertilization) and plant N demand. In Atlantic Canada, most N loss to air and water occurs in the fall and spring driven by hydrologic events (precipitation and thaw) triggering loss events. While this general relationship is well understood, and accepted, seldom has it been explicitly used to assess the risk of N impacts on air and water and to evaluate differential risk associated with current soil status and how various N management strategies mitigate or exacerbate those risks. This approach will also allow an assessment as how projected changes in climate will impact the risk of N impacts on air and water. This activity will measure soil N status of soils in NS and PEI, in combination with more detailed study of losses from selected management systems, to evaluate the importance of the timing of N mineralization on the potential for N losses.

Position Details: The PhD position starts September 1, 2017. To apply, please send transcripts, resume and names of two references to: Dr. David Burton, Department of Plant, Food, and Environment, Dalhousie University (dburton@dal.ca) by **July 1, 2017**. Applicants should hold a Master's degree with a strong background in natural or agricultural sciences. Expertise in agriculture, plant and soil science is desired. Annual PhD stipend: \$24,000 per year, for a maximum of two years. There are scholarship and teaching assistant opportunities to supplement the stipend above this base level.

MSc and PhD Research Opportunities, Food Systems PRISM, Univ. of British Columbia - Okanagan

Research projects in the area of life cycle-based food system sustainability measurement and management to commence in January, May or September 2018. For more information see: www.prismlab.weebly.com.

Events:

Crop Diagnostic School, July 4-6 and 11-13, 2017, Ian N. Morrison Research Farm, Carman, MB

Faculty staff and student day is **July 4** with registration cost of \$50 versus regular \$175.

For more information and to register: Call 204 945-5660 or crops@gov.mb.ca.

Living Soils Symposium, October 13-15, 2017, Montreal, QC

The call for speakers is open until May 31, 2017.

Please contact: Gabrielle Bastien, Director, Living Soils Symposium Montreal, 514-616-6004, gabrielle@livingsoilssymposium.ca.

For more information, click on the link below:

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/173aa9fa-5c3f-4b75-ad5e-bae1d1e40a5c/Living_Soils_Symposium_Montreal.pdf