31 May 2019

Staff/Student News and Announcements

Congratulations!

- Tony Britton successfully defended his MSc Thesis titled "Determining evapotranspiration and crop coefficient values using an adjusted Penman-Monteith equation over canola (Brassica napus) in southern Manitoba" on May 28. Congratulations Tony!

- Congratulations to Paul Bullock and his team for the work featured in the article "Monitoring and forecasting soil moisture – Real-time technology can impact decision making on-farm and across regional landscapes", which was published in the June 2019 issue of Top Crop Manager. See p6-9 at this site.

Low Flow Fume Hood Alarms, Ellis Building
There is a new procedure for personnel response to the low flow fume hood alarms in Ellis Bldg, effective immediately. See page 6 for details.

Upcoming:

Summer Institute 2019
There are only 4 spots left for grad students in the Summer Institute. Please sign up as soon as possible – applications will close on June 3. See the last four pages of this newsletter for details.

2019 ASA, CSSA & SSSA Annual Meeting, November 10-13, San Antonio, TX
Be a part of the premier international scientific conference and submit your abstract today!

Final deadline to submit abstracts is June 11. (You have until August 29 to edit it.)

Registration and Hotel Reservations are open.

CSSS/CSAFM meeting: Profiling Change: A Century of Soil Science
***Please note that the deadline for abstract submissions is Monday April 15, 2019.***
The 2019 Joint Annual Meeting of the Canadian Society of Soil Science (CSSS) and the Canadian Society for Agricultural and Forest Meteorology (CSAFM) will be held in Saskatoon, SK, July 9-13.

NB: This joint annual meeting will overlap with Rhizosphere5 in Saskatoon July 7–11th. Those who wish to register for both conferences can do so at a reduced rate. For more details, see the registration and abstract submission page and related registration link.


Department Staff Away:


Graduate Students

Registration Reminder: Summer 2019 & GRAD 7500 Academic Integrity

Please read the below information carefully as it concerns important information about graduate student registration.

NB: In addition to the re-registration courses below, please register for your appropriate thesis course:

- Master's Thesis - 1598 - GRAD 7000 - A03
- Doctoral Thesis - 1603 - GRAD 8000 - A03

No approval form is needed for Summer registration.

Information for all Master's and Ph.D. students who are continuing in their programs*:

All graduate students are required to register every academic term which includes Fall, Winter and Summer. If students do not register by June 15, 2019, they will be discontinued from their program of study. As Summer 2019 term is approaching, ensure you are registered for the re-registration course:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Term</th>
<th>CRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's Re-registration</td>
<td>GRAD 7020</td>
<td>Summer 2019</td>
</tr>
<tr>
<td>Doctoral Re-registration</td>
<td>GRAD 8020</td>
<td>Summer 2019</td>
</tr>
</tbody>
</table>

This re-registration should be over and above any course registration(s) you complete. So long as you are in a re-registration course for each term, you will retain status in your graduate program even if you withdraw from other courses.

* MBA and MPA students: if you need to register for re-registration only, please contact your departmental/unit graduate program assistant.

Exceptions to Summer 2019 term re-registration:

- Students on a Parental or Exceptional Leave do not have to register in the term(s) for which this kind of leave is approved. Students on a Regular Leave are still required to register for the re-registration course in each term.
- Students who anticipate graduating in May 2019 are not required to register for the Summer 2019 term.

Note:

Students who anticipate graduating in October 2019 must register for their final Thesis/Practicum/Comprehensive Exam/Project or the final course specific to their program in Summer 2019 term. Re-registration in GRAD 7020/GRAD 8020 is still a good idea in case your graduating term is delayed.
Students will not be assessed Program Fees or Continuing Fees in Summer Term. Applicable student organization and ancillary fees will be assessed. [http://umanitoba.ca/student/records/fees/988.html](http://umanitoba.ca/student/records/fees/988.html)

All course numbers and CRNs can be found by searching the Class Schedule link at [https://aurora.umanitoba.ca/](https://aurora.umanitoba.ca/).

If you have questions about registration please contact your departmental/unit graduate program assistant.

**Compulsory GRAD 7500 Academic Integrity Tutorial**

Academic Integrity is a matter of paramount importance in academia. It is the foundation of scholarly work. Breeches of Academic Integrity, whether intentional or unintentional, have potentially very serious consequences to a student’s status in the Faculty of Graduate Studies and at the University of Manitoba. To help graduate students better understand the issues surrounding Academic Integrity, the Senate of the University of Manitoba passed a motion that requires all graduate students to take a compulsory tutorial on Academic Integrity.

All graduate students must register for and complete GRAD 7500 Academic Integrity Tutorial one time. This is a zero (0) credit-hour course intended to introduce students to their basic responsibilities regarding academic integrity and to the resources available to them.

**Graduate Students who are starting their graduate program in Summer 2019, or who have not yet registered for the course, must register for GRAD 7500:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Term</th>
<th>CRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAD 7500</td>
<td>Summer 2019</td>
<td>1929</td>
</tr>
<tr>
<td>GRAD 7500 (French version for USB students only)</td>
<td>Summer 2019</td>
<td>1927</td>
</tr>
</tbody>
</table>

Failure to successfully complete this course within the first term of registration will result in suspension of registration privileges, and ultimately, a failed grade and Required to Withdraw action.

**Note:**
- Please only register for GRAD 7500 once. Do not register in subsequent terms while admitted to the same degree program.
- Students on an exceptional/parental/regular leave of absence must register in GRAD 7500 upon return from leave if it has not already been completed.
- Students MUST complete GRAD 7500 even if:
  - They have already completed the Research Integrity course.
  - They have already completed a similar departmental seminar course.
  - Their thesis is in the middle of distribution.
  - They are a Visiting, Occasional, or Pre-Masters student.
  - A span of time of one (1) or more term(s) separates one graduate degree program from another graduate degree program (for instance, if a student completed GRAD 7500 at the Master's level, took a break of one (1) or more terms and was admitted to another Master's or Ph.D. program)
- Students are not required to complete GRAD 7500 if:
  - They are a Ph.D. student who already completed GRAD 7500 during their Master's program (without a span of time between programs)

Students must register for the course in Aurora in order to access it in UM Learn. We strongly suggest you review the course instructions prior to starting the course: [http://umanitoba.ca/graduate_studies/htmlmail/Academic_Integrity_Instructions.pdf](http://umanitoba.ca/graduate_studies/htmlmail/Academic_Integrity_Instructions.pdf)

FAQs can be viewed at: [umanitoba.ca/faculties/graduate_studies/registration/grad7500FAQ.html](http://umanitoba.ca/faculties/graduate_studies/registration/grad7500FAQ.html).
Always remember to plan your program carefully. It is imperative that you ensure you are registering for only those courses that are a major part of your Master’s or Ph.D. program. If they are not part of your major program then they should be added through your department/unit office as an Auxiliary course “X”, Audit course “A” or an Occasional course “O”. If you have questions about this, contact your department/unit. Do not register for more courses than your program allows because you may be assessed extra fees at the time of graduation.

As per SECTION 2: Academic Performance of the Faculty of Graduate Studies Academic Guide http://crscalprod.ad.umanitoba.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=341&chapterid=4090&loaduseredits=False:

"Students are ultimately responsible for ensuring that they meet all degree and program requirements. The advisor (and if appropriate co-advisor), advisory committee, and unit must ensure that each student follows the guidelines and meets the program requirements. The Faculty of Graduate Studies performs a final check of program requirements for each student just prior to graduation. Students are cautioned, therefore, to periodically check all regulations with respect to the degree requirements. Failure to meet all the requirements will render a student ineligible to graduate."

Thank you for your attention to these important graduate student matters.

Andrea

Andrea J. Kailer, B. Comm. (Hons). Confidential Assistant to the Associate Deans & Programs Coordinator

Employment/Study Opportunities

NEW!!! Soil Survey Specialist, G3 Agrologist 3, Manitoba Government, Dept. of Agriculture
See pages 7-8 for full ad.

M.Sc. Opportunity: Hydrological Modelling for Soil Moisture Monitoring and Forecasting
Department of Soil Science, University of Manitoba

The Issue: Soil moisture is highly variable in space and time. Climate change is expected to produce more dramatic precipitation fluctuations causing extremes in soil moisture (i.e. drought and flood) more frequently. These extremes profoundly impact on agriculture, flood risk and infrastructure. However, monitoring and forecasting soil moisture is very challenging. Real-time soil moisture monitoring and forecasting requires a modelling approach that integrates various sources of hydrological data to simulate soil moisture levels.

The Opportunity: A research project has been funded consisting of a small-scale study to validate the Aquanty HydroGeoSphere (HGS) model in a Red River Valley (RRV) sub-watershed. The HGS physics-based simulation approach accounts for the entire terrestrial water cycle in 3 dimensions including atmospheric conditions, streamflow, groundwater movement and soil moisture content. Establishment of a RRV watershed that can be accurately simulated using HGS will provide the basis for future upscaling to the entire RRV. This is a key step to establishing a system to simulate current hydrologic conditions, including soil moisture, as well as future hydrologic conditions using weather forecast data for one of Canada’s most productive agricultural regions. This project will provide the backbone for a variety of agricultural and linked surface water management decision support systems that can utilize current and future soil moisture as a key input variable.

The Position: A Master of Science position is currently available for a qualified and highly-motivated student who is interested in 3D Hydrological Model testing for the purpose of monitoring and forecasting soil moisture. The individual must be a quantitatively-minded earth system science specialist, with knowledge of agricultural practices and landscapes in Southern Manitoba, and with an interest in studying soil moisture dynamics through a combination of advanced numerical models and field study. Strong communication and
writing skills are imperative. Previous experience with 3D hydrologic modeling software (i.e. HydroGeoSphere, FeFlow, Modflow, Hydrus, Parflow, GSFlow) would be an asset.

The position has a stipend of $22,000 per year plus the opportunity for additional money as a Teaching Assistant. Applications accepted until the position is filled. To apply, send (via email), a cover letter explaining your interest in the position, a detailed resume and two letters of reference to Dr. Paul Bullock, Professor Agrometerology (Paul.Bullock@umanitoba.ca). Please use “M.Sc. Hydrological Modeling” in the subject line. The Department of Soil Science is committed to a training environment that embraces gender equality, diversity and encouragement of First Nation and Metis peoples and minorities.

Ph.D. and M.Sc. opportunities, Department of Soil Science, University of Manitoba
Graduate opportunities are available starting September 1, 2019 in the following areas:
• Temporal changes in soil productivity following reclamation of pipeline corridors
• Modeling changes in soil quality indicators in perennial forage systems for fall/winter grazing of beef cattle
• Organic amendment effects on vegetation response to differential reclamation topsoil replacement depths on sites disturbed by energy extraction: Statistical modeling
For more information, contact Dr. Francis Zvomuya (francis.zvomuya@umanitoba.ca).

Assistant/Associate Professor and WGRF Chair in Cropping Systems
University of Alberta, Department of Agricultural, Food and Nutritional Science
Competition No. - A108138334
Closing Date - Will remain open until filled.
The Department of Agricultural, Food and Nutritional Science (AFNS) at the University of Alberta is inviting applications for a full-time tenure-track appointment at the Assistant/Associate Professor level in the area of Cropping Systems that is supported by the Western Grains Research Foundation (WGRF).

For more information on this position please click the link below.

https://gallery.mailchimp.com/ca7fd4410b9dab34e3ef8b381/files/1a6e9fb6-1706-479c-9c69-2b0a538b62ce/U_of_A_.pdf
LOW FLOW FUME HOOD ALARMS, ELLIS BLDG

There is a new procedure for personnel response to the low flow fume hood alarms in Ellis Bldg, effective immediately.

If the siren activates, it means there has been an exhaust system failure and the fume hoods have stopped drawing the appropriate amount of air. Chemical exhaust could be dumping into lab and general building space.

Because the Ellis Bldg has 2 separate ventilation systems (the North Wing and the South Wing), we can initially evacuate to the other wing. If the siren has activated in both wings, then both ventilation systems have shut down and we need to exit the building. When the alarms have stopped, we are to wait 5 minutes before re-entering, this is to allow any build up of gases to be ventilated from the building.

For now, this will be an individual response and not part of the Fire Evacuation Procedure.

On campus this currently effects the Ellis Bldg, the Animal Science Bldg and the Biological Sciences Bldg. The UM Life Safety Committee is currently working on a Campus wide plan, this an interim procedure put in place to address our Department’s Due Diligence.

We will discuss this at The Spring Orientation Session, if you currently have any questions contact Rob Ellis

The following signage has been posted below all 20 Low Flow Strobe/Sirens in Ellis:

**IF THE ABOVE SIREN HAS ACTIVATED,**

**IT MEANS THE BUILDING’S CHEMICAL FUME HOODS HAVE STOPPED WORKING**

**IMMEDIATE ACTION STEPS:**

1. **EVACUATE TO THE NORTH WING OF THE BUILDING**
2. **IF THE NORTH WING IS ALSO ALARMING, EVACUATE TO OUTSIDE THE BUILDING**
3. **WHEN THE SIREN HAS STOPPED, WAIT 5 MINUTES BEFORE RETURNING**

(Effective April 2019)
Soil Survey Specialist  
G3 Agrologist 3  
Regular/full-time  
Department of Agriculture  
Agri-Resource , Stewardship and Assurance  
Minnedosa MB, Winnipeg MB  

Advertisement Number: 35300  
Salary(s): G3 $67,242.00 - $87,068.00 per year  
Closing Date: June 12, 2019

The Manitoba government recognizes the importance of building an exemplary civil service that is inclusive and reflective of the population it serves. We encourage applicants to voluntarily self-declare in the cover letter, resumé or application if they are from any of the following employment equity groups: women, Indigenous people, visible minorities, and persons with disabilities.

Employment Equity is a factor in selection for this competition. Consideration will be given to women, Indigenous people, visible minorities and persons with disabilities.

An eligibility list may be created for similar positions and will remain in effect for 12 months.

A detailed position description is available upon request.

Please clearly indicate your location preference in your cover letter or resume.

Introduction

Manitoba Agriculture creates the environment that accelerates sustainable growth in the agriculture and agriprocessing sector.

Conditions of Employment:

- Must be legally entitled to work in Canada
- Must be a member of, or eligible for membership in the Manitoba Institute of Agrologists at the Professional Agrologist level
- Valid Class 5 Driver’s license, with the ability to travel regularly throughout the Province of Manitoba, including overnights as required
- Physically capable of working outdoors in various environmental conditions. Ability to lift 50 pounds and walk extended distances
- Ability to work extended hours during peak periods
- A satisfactory criminal record check

Qualifications:

Essential:

- A Masters degree in Agriculture with a major in Soil Science or Soil AgroEcology or related discipline. An equivalent combination of education, training and experience may be considered
- Demonstrated experience in soil survey procedures, taxonomy and pedology in Canadian agriculture
- Experience in program development, planning and evaluation
- Ability to independently manage projects and undertake necessary research and information gathering to keep current on issues/trends in the industry
- Ability to work effectively and collaborate in a multidisciplinary team with internal and external stakeholders
- Ability to effectively prepare and deliver training and presentations/training events
- Excellent oral communication skills
- Excellent written communication skills
- Excellent interpersonal skills
- Strong problem solving skills
- Strong planning and organizational skills, with the ability to manage competing deadlines
- Computer proficiency in Word, Excel, PowerPoint and Outlook
- Proven experience with three dimensional sensing software like Summit software, geospatial ESRI software, and statistical software

Duties:

The Soil Survey Specialist provides provincial leadership and coordination in collecting and interpreting soil data. The position is located in Winnipeg, reporting directly to the Manager, Soil Survey and Ag Weather Surveillance, Agri Resources Branch. The Soil Survey Specialist studies, investigates and map soils, including their morphology, genesis, landscape position, and distribution. Their physical, chemical, and biological properties and processes; their relationship to climate, physiographic and vegetative influences; their management and suitability for various uses are also analyzed. The Specialist will lead in the development and delivery of programming and extension that increases the use of soil resource information, products and technologies. Extensive travel required.
Please be advised that job competitions may be grieved and appealed. Should a selection grievance be filed, information from the competition file will be provided to the grievor's representative or the grievor, if unrepresented. Personal information irrelevant to the grievance and other information protected under legislation will be redacted.

We thank all who apply and advise that only those selected for further consideration will be contacted.

WHEN APPLYING TO THIS POSITION, PLEASE INDICATE THE ADVERTISEMENT NUMBER AND POSITION TITLE IN THE SUBJECT LINE AND/OR BODY OF YOUR EMAIL.

Your cover letter, résumé and/or application must clearly indicate how you meet the qualifications.

This personal information is being collected under the authority of The Civil Service Act and will be used for employment and statistical purposes. It will not be used or disclosed for other purposes, unless permitted by The Freedom of Information and Protection of Privacy Act: Your personal information is protected by the Protection of Privacy provisions of The Freedom of Information and Protection of Privacy Act. If you have any questions about the collection of your personal information, contact:

Manitoba Civil Service Commission, 535 - 115 Carlton Street, Winnipeg, MB R3C 3H8 (204) 945-2132
**Summer Institute of Agronomy**
Non-credit Certificate Field Course for Development Agronomists and Graduate Students
July 22-24, 2019
University of Manitoba Carman and Region Campus

**Background**
“Agroecology is based on applying ecological concepts and principles to optimize interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system” (FAO). One tactic within agroecology is Conservation Agriculture (CA), a practice that combines the principles of minimal soil disturbance with soil cover and plant diversity (FAO).

The University of Manitoba has been working with the Canadian Foodgrains Bank and their international partners on Agroecology and Conservation Agriculture in Asia and Africa since 2009. Martin Entz led the Asian project and a 4 year IDRC funded project in Zimbabwe. Mario Tenuta, Marla Reikman (Man Agric), Martin Entz and Plant Science graduate student April Stainsby are now working on CA programs in Eastern Africa (Tanzania, Kenya, Ethiopia). We use a diversity of tools; working together with partners in host countries, webinars and other media, and joint publication of results at conferences and workshops. Last summer, we held our first “Summer Institute for Development Agronomists” where Asian visitors spent one week at the University of Manitoba Carman Campus Farm learning about the theory and practice of CA and Agroecology in a hands-on format.

**Graduate student non-credit certificate course**
This July, we will host approximately 10 African agronomists plus a number of agronomists from Canadian-based development organizations for a 3-day Summer Institute of Agronomy. This summer institute will focus on the principles of Agroecology with a focus on the application of Conservation Agriculture in different agricultural contexts around the world.

Graduate students are invited to participate in this institute alongside our international visitors. The 3-day course will provide U of M students with a certificate in “Development Agronomy: Agroecology and Conservation Agriculture”. But perhaps more importantly, U of M and other graduate students will gain valuable experience from International agronomists, learn more about issues of food security in Africa, and join the worldwide network of agronomists working to develop sustainable food production systems.
Curriculum Format
The three day curriculum will include a combination of hands-on field activities (60%) and theory, including the principles of soil health, soil nutrient management, sustainable crop production systems, crop physiology and agroecology (40%). A reading list and paper copies will be made available to all participants.

Images from 2018 summer institute

Main themes for each day

Day 1, June 22

Introduction and overview of 3-day program – Martin Entz (University of Manitoba)

Principles of Conservation Agriculture (CA), a global perspective – Martin Entz (University of Manitoba). Includes:
- Evolution of conservation agriculture around the world
- Resource use considerations

Conservation agriculture basics: Lessons from Southern African research – Alden Braul (Hemp Genetics). Includes:
- Experiences from 6 years of research and development in Zimbabwe
- In-field demonstrations of CA crops

The art and science of intercropping legumes – Katherine Stanley (University of Manitoba). Includes:
- Intercropping combinations in the field
- CA Maize intercropping demonstrations
- Root systems in various intercrop legume species
- Double up legume intercrops

Soil carbon basics – Cynthia Kallenbach (McGill University). Includes:
- The C cycle in the agroecosystem
- Toward a new understanding of how carbon is actually sequestered in soils
Day 2, July 23

Legume N fixation and the soil microbiome – Newton Lupwayi (AAFC Lethbridge Research Centre). Includes:
- What is the soil microbiome and how can we best manage it in tropical systems?
- The role of N fixing bacteria African legumes.

Ecological soil heath management – Mario Tenuta (University of Manitoba). Includes:
- With our new knowledge of soil ecosystem function, how do we design cropping systems to maximize soil health benefits

Measuring soil health in the field – Marla Riekman (Manitoba Agriculture). Includes:
- The Cornell soil health test
- Other indicators including the spade drop test
- Use long-term land use studies at Carman to demonstrate

Soil aggregate stability – April Stainsby (University of Manitoba). Includes:
- Hands on aggregate stability analysis

Day 3, July 24

How animal diet affects manure quality and how crops respond to these different manures – Emma Mcgeough and Don Flaten (University of Manitoba). Includes:
- Dr. Mcgeough’s project involves feeding beef cattle diets with a range of different nutrient concentrations
- Understand model of animal diet–to–manure nutrient content–to–soil nutrient status–topplant response
- Priming manure using different N fertilizer strategies

Soil testing for nutrients – Don Flaten (University of Manitoba). Includes:
- What are soil testing approaches for temperate and tropical soils.
- How to interpret soil test result

Plant stresses – what we need to know. – TBD (University of Manitoba). Includes:
- What do agronomists need to know about how plants respond to stresses such as drought, heat, flooding, soil acidity, etc.

Agroecological learning systems for small-holder farmers: Experiences from Malawi and Tanzania – Rachel Bezner Kerr (Cornell University)
- Rachel Bezner Kerr is involved in a long-term collaborative research project in Malawi in partnership with the nonprofit Soils, Food and Healthy Communities (https://soilandfood.org/). She is now scaling up this work as part of the Malawi Farmer-to-Farmer Agroecology project, in collaboration with the University of Malawi and several Canadian universities.
Next Steps for Graduate Students

1. Registration (limited to 20 graduate students)
   a. Register by sending an email to Dr. Martin Entz m.entz@umanitoba.ca
   b. Please include one or two sentences indicating your interest in this institute.

2. Plan for travel to and from Carman for the 3 days
   a. Graduate students will have to find their own transportation to and from Carman each day. If you require transport, please let me know in an email and we will do our best to assist.

3. Cost: The cost is $40 per graduate student – the cost includes lunch and refreshments