



CANADIAN SOCIETY OF SOIL SCIENCE SOCIÉTÉ CANADIENNE DE LA SCIENCE DU SOL

CSSS Newsletter

July 2006

PRESIDENT'S MESSAGE

Dear CSSS Members,

I would like to acknowledge Anne Naeth and the 2006 CSSS/CGU (Canadian Geophysical Union) organizing committee for planning and hosting a superb conference in Banff, Alberta this past May. There were 144 CSSS members who attended the 2006 conference. There were over 140 oral and poster presentations at the conference with 52 being presented by graduate students.

I would like to extend congratulations to our new Fellow, Dr. Ed Gregorich. Ed has served our Society in many ways, including his term on council as President, through his involvement in many international programs, as editor and author of numerous books and book chapters and through his innovate research which has been published in many journal articles. Congratulations are also extended to the Student Travel Award winners, to the Bentley Oral Presentation winners and to the President's Poster winners. A new Scholarship was also announced at our annual meeting. The Karl C. Ivarson Scholarship will be awarded on an annual basis to a first-year student studying Soil Science at a Canadian University. Additional information concerning this scholarship and the 2006 CSSS award winners will be circulated in the Fall.

This year we have 392 members registered in the Canadian Society of Soil Science as of May 31st, 2006 and we expect that they will be over 400 by year-end. Our membership numbers continue to be very healthy as we have had 400 or more members since 2002. The membership numbers are especially encouraging as there were only 317 members registered in 2000. I would like to offer thanks and congratulations to the current and previous councils, conference organizers, CSSS journal editors and to Steve Sheppard and our Business office for helping us attract and retain new members to our society. The number of graduate student members in CSSS is also very encouraging as graduate students represent about 25% of our membership.

CSSS Council President

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CJSS Editor

Francis J. Larney Agric. Agri-Food Canada Lethbridge, AB, T1J 4B1 Tel: (403) 317 2216 Fax: 403-317 2187 Email: larney@agr.gc.ca The council has also been involved in the planning of the 2007 and 2008 conferences. In 2007, CSSS will meet with L'Association québécoise des spécialistes en sciences du sol from June 3 to 6th, 2007. The University of Northern British Columbia will be hosting the CSSS conference in Prince George from July 6th to July 9th, 2008.

I would also like to inform members about the proposed revisions to our Rules & Bylaws. Council has proposed to change: 1) the term of office for elected council members to a calender year basis; 2) adopt an on-line voting system for elections and for voting on other issues and/or changes to our Rules and Bylaws; and 3) to adopt a nomination committee for council positions. This committee would be chaired by the Past President and would also include both the Eastern and Western Councilors. CSSS would continue to actively canvas nominations from CSSS members. A ballot concerning the proposed changes to these Rules & Bylaws will be sent out to members later in the year.

We are also exploring many ways to promote the Canadian Society of Soil Science through the Soils Exhibit at the Museum of Nature, through CSSS books such as the 2nd edition of the Soil Sampling and Methods of Analysis, through improvements in online submission and access to the Canadian Journal of Soil Science and through changes in our website and mandate. I will also be representing CSSS at the council meetings for the World Congress of Soil Science in Philadelphia. Please feel free to provide suggestions to myself or any of our council members of ways in which we could further promote our Society and serve our members.

Best Wishes,

Craig Drury
President CSSS

CSSS Members Get Discounts on AIC Journal Subscriptions

CSSS members receive a discount (about 60% off the full rate) when they subscribe to any of the following journals:

- ◆ Canadian Journal of Soil Science (www.nrc.gc.ca/aic-journals/cjss)
- ◆ Canadian Journal of Plant Science (www.nrc.gc.ca/aic-journals/cjps)
- ♦ Canadian Journal of Animal Science (www.nrc.gc.ca/aic-journals/cjas)

An electronic-only subscription to all three journals costs less than \$90.00 (plus tax) per year. For more information, contact Steve Sheppard

News from the Canadian Journal of Soil Science (CJSS)

A Special Issue, *Carbon Dynamics in Forest and Peatland Ecosystems* (14 papers with Guest Editors Jagtar Bhatti & Caroline Preston) was published in April 2006. Another, *Canadian Agri-environmental Indicators* (10 papers with Guest Editors Craig Drury & Warren Eilers) is almost complete and will be published in early 2007.

Two Special Sections will be published in upcoming issues: *Measuring And Modelling Greenhouse Gas Emissions From Canadian Farms* (8 papers with Guest Editors Bert Vanden-Bygaart, Henry Janzen & Sean McGinn, May 2006) and *Organic Waste to Resource: Recycling Nutrients* (6 papers with Guest Editors Frank Larney & Bill Pan, August 2006).

Five more Special Issues/Sections are in the planning stages: *Emissions of N₂O from Agricultural Soils in Canada*, (Guest Editor, Philippe Rochette); *Régis Simard Symposium*, (Guest Editor, Michel Nolin); *Soil-Water Relationships*, (Guest Editor, Cameron Grant); *Integration of Greenhouse Gas Emissions/Removals from Canadian Agroecosystems*, (Guest Editor, Brian McConkey); *Ethics in Soil Science*, (Guest Editor, Henry Janzen).

The commitment of our Guest Editors toward Special Issues and Sections in very much appreciated. For 2005, submission numbers (120) were well up on the previous 5-yr average of 90. 31% of our submissions were subsequently declined for publication, slightly higher than the previous 5-yr average of 28%. Submissions from outside Canada comprised 36% of the total, higher than the previous 5-yr average of 29%. This is a favourable trend, making *CJSS* more of an 'International' journal.

For published articles, 2005 was a fairly normal year for regular papers (58) compared with the 5-yr average (57). In 2005, review papers increased from zero to two! I would like to see the number of review papers continue to increase as they improve our Impact Factor. If you are interested in writing a review paper, please contact me.

In 2005, 22% of our published papers originated from outside Canada which was higher than 5-yr average of 15%.

Volume 85 (2005) of *CJSS* comprised 706 pages which is up on the 5-yr average of 600 pages, mainly due to the addition of a fifth Special Issue to our four regular ones.

Our impact factor in 2004 (0.741) was slightly lower than the 5-yr average (0.783). In 2005, *CJSS* ranked 19th of 26 soils-related journals. In 2005, *Soil Biol. Biochem.*, the topranking soils journal had an impact factor of 2.234 while *SSSAJ* (ranked 3rd) was 1.501.

The AIC Journals Office is moving to a web-based manuscript submission and peer review system (OSPREY) in the coming months. This will improve and streamline the *CJSS* submission and review process

As CSSS members, your support of *CJSS* is vital. Keep those manuscript submissions rolling in!

Frank Larney, (larneyf@agr.gc.ca)
Editor, CJSS (www.nrc.gc.ca/aic-journals/cjss.html)
Agriculture and Agri-Food Canada
Lethbridge, AB

Congratulations to Canadian Society of Soil Science Fellow 2006 Dr. Edward G. Gregorich



Dr. Gregorich's research began in soil quality for crop production in Saskatchewan and developed into many contributions to Canadian and international soil science focusing on the nature, quality, dynamics and modeling of soil organic carbon and nitrogen, two of the most important nutrients determining the quality and productivity of soil for biomass production. He and his collaborators have been instrumental in identifying the key factors controlling the fluctuation and persistence of

soil organic matter in cool, humid region agricultural soils. The high quality and importance of his innovative research resulted in many long term national and international collaborations, including service on the USDA committee on soil organic matter and quality, the Ontario Soil Management committee and as National Study Leader of AAFC Soil Carbon and Nitrogen Management project. He has provided considerable advice to government agencies including the Intergovernmental Panel on Climate Change.

Dr. Gregorich has a distinguished publication record which includes numerous scientific articles, more than 20 book chapters and major editorial contributions to two highly respected texts: 1-Soil Quality for Crop Production and Ecosystem Health and 2-Soil and Environmental Science Dictionary, and the upcoming new edition of the Canadian Soil Science Societies methods manual, the 4th edition of A Soil Sampling and Methods of Analysis. He has served as Associate Editor of both the Canadian Journal of Soil Science and the Journal of Environmental Quality.

Extensive service to the Canadian and International soil science community includes terms as Councillor, President-elect, President and President-elect of the CSSS including a highly successful independent and collaborative conference with the Soil Science Society of America. He currently is Incoming-Chair and Chair of Soil biology and Biochemistry Division (S.3) of the SSSA.

This summary is illustrative of the achievements of a dedicated and hard-working soil scientist whose accomplishments befit Fellowship in the Canadian Society of Soil Science.

Highlights from the CSSS Annual Meeting, Banff, Alberta

C.F. Bentley Award for Oral Presentation

This award was initiated in 1983 to encourage and recognize excellence in oral presentations by students at the CSSS Annual Meetings. It honours Dr. Fred Bentley who was CSSS President in 1956-57 and inducted as a CSSS Fellow in 1973. The award winner received \$500, the first runner-up \$300, and second runner-up \$200.

1st Place: Gena Braun University of Western Ontario

2nd Place: Jeanette Gaultier University of Manitoba 3rd Place: Chris Perry University of Guelph

Presidents Award for Poster Presentation

This award was established in 1992 to foster excellence in student poster presentations as a means of disseminating research results at the CSSS Annual Meetings. The President's Award is: \$500 for the winner, \$300 for the first runner-up and \$200 for the second runner-up.

1st Place: Leslie Yasul University of Alberta

2nd Place: Lori Phillips University of Saskatchewan
3rd Place: Shannon Daradick University of British Columbia

Appreciation is extended to the judges for the C.F. Bentley Awards who at Banff included Sina Adl, Darwin Anderson, Nate Basilko, Don Flaten, Graeme Hope, Maya Krzic, Frank Larney, John Lauzon, Les Lavkulich, Gerry Neilsen, Paul Sanborn, and Bert Vandenbygaart. Judges for the Presidents Poster Award included Per Bengtson, Chuck Bulmer, Joel Crumbaugh, Melanie Jones, Yash Kalra, Newton Lupwayi, Derek Mackenzie, Gary Parkin, Don Pennock and Sylvie Quideau. A special vote of thanks is extended to Xiying Hao who judged both orals and posters! Needless to say without judges there would be no awards.

Congratulations to Dr. Don Flaten

Recipient of the University of Manitoba Outreach Award

Highlights from the CSSS Annual Meeting, Banff, Alberta

2006 CSSS Student Travel Awards

This travel award was established in 1991 to promote student attendance at the CSSS Annual meetings and is available to any CSSS graduate student. The award is \$500 and a maximum of 12 travel grants can be awarded. Attesting to the popularity of this award, there were 40 excelent submissions this year. The following students received \$500 travel awards to attend the meetings in Banff this year.

Chris Perry	University of Guelph	MSc. Student
Bobbie Helgason	University of Saskatchewan	PhD. Student
Chris Baan	University of Saskatchewan.	MSc. Student
Dean Mackenzie	University of Alberta	MSc. Student
Stephanie Grand	University of British Columbia	PhD. Student
Alicia Speratti	McGill University	MSc. Student
Brad Pinno	University of Saskatchewan	PhD. Student
Priyantha Kulasekera	University of Guelph	PhD. Student
Manash Mkhagbela	Dalhousie University	PhD. Student
Wai Ma	University of Saskatchewan	PhD. Student
Lori Phillips	University of Saskatchewan	PhD. Student
Jeff Gunderson	University of Saskatchewan	MSc. Student

Student Book Awards 2006

This award recognizes undergraduates at Canadian universities who demonstrate excellence in Soil Science. The award consists of a copy of the Soil and Environmental Science Dictionary published jointly by CSSS and CRC Press. Candidates are nominated by their academic department.

Karl Bergman University of Manitoba Patrick Dineen McGill University

Tlell Glover University of Northern British Columbia

Coreen Mathon University of Alberta

Amanda Matson University of Saskatchewan University of British Columbia.

Marie-Paule Robichaud-Villettaz Université Laval Mallory Jackson Guelph University **Travel award winners.** From left to right: Chris Bann, Wai Ma, Lori Phillips, Dean Mackenzie, Manash Mkhagbela, Alicia Speratti, Chris Perry, Priyantha Kulasekera, Stephanie Grand, Bobbie Helgason. Missing: Brad Pinno, Jeff Gunderson.



Poster and oral presentation award winners. From left to right: Lori Phillips, Shannon Daradick, Leslie Yasul, Chris Perry and Jeanette Gaultier. Missing Gena Braun.



Neil Foster Memorial Award

A graduate student fellowship is being established within the Faculty of Forestry at the University of Toronto to honour Neil Foster's memory. We have set an ambitious financial goal to ensure that the award is generated in perpetuity. If we are able to meet our target of \$50,000 in donations we will be able to leverage matching money from the province and the university. With this matching money the value of the award will be tripled, from approximately \$2,000 to \$6,000 in annual award income. The Canadian Forest Service, the Canadian Institute of Forestry – Central Ontario Section, and the Soil Science Society of America – S7 Forest, Range and Wildland Soils Division have provided lead gifts to initiate the award. A pledge commitment form for the Neil Foster Memorial Fund is available at the University of Toronto, Faculty of Forestry website. (http://www.forestry.utoronto.ca)

Student News

The participation and attendance of student members at this years CSSS conference in Banff, Alberta was excellent. I could only imagine how difficult it was for the judges to select the top three students oral and poster presentations.

Gena Braun was awarded 1st place for oral presentations. Gena is currently in the final stages of completing her M.Sc. thesis working under Dr. Irena Creed (Supervisor) from the University of Western Ontario and Dr. Rick Bourbonniere (co-supervisor) from Environment Canada. The aim of her thesis is to determine relationships between topography, soil organic matter (SOM), dissolved organic matter (DOM), and soil CO₂ flux along a forested hillslope in the Turkey Lakes Watershed in Central Ontario. DOM quantity was found to be the key soil property controlling topographically variable CO₂ flux. The relationship between DOM and CO₂ is affected by hydrologic flow, with periods of high flow resulting in transport and lower DOM availability for microbial decomposition. These results emphasize that topography must be considered in the development of carbon budgets, and further our present understanding of the processes governing soil CO₂ flux.

When asked what sparked Gena's interest in soils she responded with the following, "What steered me in the direction of soils? Well, my primary interest was greenhouse gases, and biogeochemistry in general. Soils are a huge contributor to atmospheric carbon dioxide and we don't know a lot about the processes that drive this production, how they are affected by topography, or how they will respond to a changing climate, so research needed. Dr. Creed is a principle investigator on this project, and there are many other facets to this study, beyond my contribution interest in greenhouse gases and biogeochemistry". Well Gena you certainty have a passion for the interaction between soils and greenhouse gases and it is great to see people live that passion out.

Leslie Yasul (M.Sc. student) was awarded with the best poster presentation. Leslie is a M.Sc. student at the University of Alberta working under Dr. Scott X. Chang and Dr. M.A. Arshad from the University of Alberta. Objectives of her research are to compare between landscape positions (riparian vs. upland, both under forage crop) and land use (forage crop vs. native vegetation, both in the riparian position) on nitrogen and phosphorus mineralization and denitrification in an agricultural landscape. The research site is located along Whitemud Creek, 1.5 km west of the Edmonton International Airport. The buried bag method and PRSTM probes from Western Ag Innovations Inc., Saskatoon, Canada, are being used to measure P and N mineralization rates and the acetylene inhibition static core method and δ^{15} N natural abundance methods are being used for measuring the denitrification rate over 2 growing seasons in 2005 and 2006. The findings from this research will have implications for improving Beneficial Management Practices (BMPs) in the agricultural landscape on the Canadian Prairies, especially for nutrient management in cropping systems incorporating a riparian component.

Leslie really took a strong interest in soils in her 3rd year undergrad when she participated in the Exchange Abroad Program at University of Philippines – Los Banos from the University of British Columbia. In her first term she was bombarded with soils classes and loved it. She describes her passion for soils in a way I think each one of us CSSS members have felt before and still feel.

Leslie writes, "It has always amazed me that there is so much going on underneath our feet"!

I hope all CSSS student members have a great field season and take some time to look back and remind themselves what got them into soil science, as Gena and Leslie have done. It is important that we frequently go back to those roots because it will keep the passion for soil science flowing in our veins for eternity. The extra enthusiasm we create will let us continue to do what we do so well -study soils, and the positive attitude we CSSS members hold towards soils will fall onto others around us. I would be delighted to read your e-mails about what got you involved in soil science. I believe rekindling our first soils encounter is an essential part in going forward with our soils career.

On another note, it is important that CSSS student members who eventually are no longer students stay active CSSS members. In the future it will be our knowledge, our passion and our dedication to soils that will keep the CSSS as successful as it is now and has been in the past. I encourage all CSSS student members to stay active within the society, spread the word and vibe to other students and please stay in touch.

Dean MacKenzie CSSS Graduate Student Representative

Congrats

Nathan Basiliko, PDF in Forest Sciences at UBC, was recently awarded a grant from the UK Royal Society to spend the summer at the University of Warwick at Coventry in Professor Colin Murrell's group in Biological Sciences. His work in the UK will include developing nucleic acid stable isotope probing techniques to better understand how commercial fertilization of BC plantation forests might alter methane-oxidizing bacteria in soils. This work is part of a larger project funded by NSERC and BIOCAP Canada Foundation to his supervisor, Professor Sue Grayston. Nathan and fellow UBC Forest Sciences MSc student Shannon Daradick presented this work at the CSSS general meeting in Banff. Shortly after his return to Canada, Nathan will begin a faculty position focusing on soil processes in the Department of Geography at the University of Toronto at Mississauga.

CSSS – Business Office

The CSSS Business Office is here to help with: CSSS Business Office

• membership concerns P.O. Box 637

• updated CSSS membership list Pinawa, Manitoba R0E 1L0 Canada

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society publications Fax: (204) 753-8478

Email: <u>sheppards@ecomatters.com</u>

Contact: Steve Sheppard

UPCOMING CONFERENCES

August 1-4, 2006

Joint Colloquium of The Canadian Society of Animal Science (CSAS), The Canadian Society of Agronomy (CSA) and The Canadian Society for Horticultural Science (CSHS) Halifax, Nova Scotia, Canada http://nsac.ca/pas/conferences/

August 28 - September 3, 2006

Sustainability–Its Impact on Soil Management and Environment Kiel, Germany

www.istro.org or www.soils.unikel.de/istro.htm

Sep 4-6, 2006

8th International Conference on Modelling, Monitoring, and Management of Water Pollution

Bologna, Italy

http://www.wessex.ac.uk/conferences/2006/water06/index.html

September 4-6 2006

IX European Society of Agronomy Congress Warsaw, Poland

www.esagr.org/structure/

September 4-7 2006

Agroenviron 2006: Fifth International Symposium on the Agricultural Environment, Ghent, Belgium;

 $\frac{http://www.soilman.ugent.be/agroenviron/inde}{x.html\ or\ joke.vandesteene@Ugent.be}$

September 12-15, 2006

International ESSC Conference on Soil and Water Conservation under Changing Land Use Lleida, Spain

www.udl.es/serveis/sedai/sigtel/ESSC2006.ht ml

September 18-19, 2006

Conference on Damage in Composite Materials: Simulation and Non-Destructive Testing (CDCM 06)

Stuttgart, Germany www.cdcm06.de

Sep 27-29, 2006

Waste Management Problems in Agro-Industries

Amsterdam, The Netherlands

http://www.moorga.com/Agro%20Industries/Conference4.htm

Oct 9-15, 2006

Water, Ecosystems, and Sustainable Development in Arid and Semi-arid Zones
Urumqi, China
http://www.ephe.sorbonne.fr/watarid/watarid_e
n.htm

October28-30, 2006

1st IWA International Symposium on Water and Wastewater Technologies in Ancient Civilizations

Iraklio, Greece

www.nagref.gr/Symposium/index.htm

October 29-November2, 2006

HortiModel 2006: Models for Plant Growth, Environmental Control, and Farm Management in Protected Cultivation Wageningen, the Netherlands www.hortimodel2006.nl

November 6-11, 2006

X National Peruvian and II International Soil Congress. Soil: food security and poverty Lima, Peru

http://www.lamolina.edu.pe/suelos/default2.ht m

November 12-16, 2006-07-21

ASA-CSSA-SSSA Annual Meetings Indianapolis, IN http://www.acsmeetings.org/

January 7–13, 2007

4th International Conference of the African

Science Society: Impacts of Climate Change, Global Trade

Urbanization, and Biotechnology on Land Use in Africa

Accra, Ghana

soils intconf@yahoo.co.uk

February 5-8, 2007

Weed Science Society of America Annual Meeting

San Antonio, TX; www.wssa.net/

March 8-9, 2007

Western Nutrient Management Conference Salt Lake City, UT

http://isnap.oregonstate.edu/WERA_103/ or richk@wsu.edu

April 15-21, 2007

17th International Conference on Phosphorus Chemistry,

Xiamen, China.

Prof. Yufen Zhao Department of Chemistry, Xiamen University

Xiamen, China 361005

Tel.: +86 5922185610; Fax: +86 5922186292 E-mail: yfzhao@xmu.edu.cn

May 24-26, 2007

Zinc Crops 2007—Improving Crop Production and Human Health Istanbul, Turkey; www.zinc-crops.org

June 3-6, 2007

2007 Canadian Society of Soil Science Annual Meeting joint meeting with L'Association québécoise des spécialistes en sciences du sol Auberge Duchesnay, a resort 30-40 km from Quebec cityc, Quebec

June 25-30, 2007

5th International Congress of the European Society for Soil Conservation Palermo, Italy dazzi@unipa.it

July 9-13, 2007

Information Agriculture Conference (InfoAg 2007), Springfield, IL www.infoag.org

July 15-19, 2007

The Third International Conference on Enzymes in the Environment: Activity, Ecology, and Applications
Viterbo, Italy
www.unitus.it or Richard.Dick@snr.osu.edu

July15-19, 2007

9th International Conference on the Biogeochemistry of Trace Elements Beijing, China www.conference.ac.cn/icobte.htm or icobte@rcees.ac.cn

July 16-20, 2007

30th International Conference on Solution Chemistry,

Perth, Australia.

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August19-23, 2007

International Symposium on Forest Soils and Ecosystem Health: Linking Local Management to Global Change Challenges
Sunshine Coast, Queensland, Australia
www.griffith.edu.au/conference/isfs2007/ or
t.blumfield@griffith.edu.au

Sep 15-19, 2007

International Symposium on Air Quality and Waste Management for Agriculture
Omni Interlocken Resort, Broomfield, CO http://www.asabe.org/meetings/airwaste2007/index.htm

November 4-8, 2007

ASA-CSSA-SSSA Annual Meetings New Orleans, LA; New Orleans http://www.asa-cssasssa.org/news/calendar.pdf