



## PRESIDENT'S MESSAGE

Recently I was involved in a process with the American Society of Agronomy to define the “Grand Challenges” facing agronomy in the future. The document is available at <https://www.agronomy.org/files/science-policy/asa-grand-challenge-2010.pdf> and will be circulated to funding bodies and politicians in the United States to highlight the critical role of agronomy in ensuring food security and environmental sustainability. These issues also are very relevant to the soil science community because of the great degree of integration between soil science and agronomy. I'd encourage you to read the ASA document and consider whether the Canadian Society of Soil Science should work to develop a similar statement to present to the decision-makers in Canada.

When we look ahead to the challenges facing Canada in the next decades it is evident that Soil Science has a huge role to play. Climate change, food security, water quality, energy supply are only a few of the issues that we need to address where soil science knowledge is a critical component. But, it is also evident that importance of the basic resource-based industries such as agriculture and forestry to Canadian Society is poorly recognized. As scientists retire, fewer are being replaced in government labs and in the university system. As a result, the human resources needed in soil science are dwindling. This poses a risk both to our current ability to conduct the research that will be needed to address the challenges facing society, and also to our ability to train the next generation of scientists.

We have a difficult task in communicating the importance of our science to a society that is becoming further and further removed from the land. The public is increasingly concerned with environmental sustainability and food quality, but seems to be unaware that a healthy resource sector is critical in attaining these goals. They are even less aware of the role that science must play in ensuring the economic and environmental sustainability. This is combined with an increasing distrust of the integrity of the scientific process. We face a major challenge, therefore, not just in conducting high quality science, but also in communicating the importance of good science for the well-being of Canada's population.

*Cynthia Grant*

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## New CSSS Executive: Biographies

### President –Elect:

#### **Dr. David A. Lobb**

Dr. David Lobb is a Professor in the Department of Soil Science at the University of Manitoba. He received his B.Sc. (1987) in physical geography from the University of Toronto, and his M.Sc. (1991) and Ph.D. (1998) in soil science from the University of Guelph. Before moving to Manitoba in 1999, David worked in Ontario and across Atlantic Canada. He grew up on a cash crop farm in southern Ontario. Dr. Lobb's research, teaching and extension activities are in the areas of soil erosion, soil and water conservation and sustainable agriculture. David is internationally recognized for his research in tillage translocation and tillage erosion, particularly for his advances in experimental methods and modeling. He has published over 40 scientific papers and book chapters in this area. His expertise in soil erosion and conservation has been sought by the International Atomic Energy Agency, the Food and Agriculture Organization, the World Bank and the Organization for Economic Cooperation and Development, in addition to provincial and federal government agencies in Canada. In support of Agriculture and Agri-Food Canada's agri-environmental risk indicator program, David has made major contributions to the development of the tillage erosion risk and soil erosion risk indicator models.

Dr. Lobb has been a member of the Canadian Soil Science Society since 1994. He has contributed to the Society in several capacities over the past 16 years, including serving on CSSS Council from 1995 to 1999 and as a guest editor on a special issue of the Canadian Journal of Soil Science. David has also been very involved in other soil science organizations, including: serving as President of the Manitoba Soil Science Society (2001), serving as an Associate Editor for the Journal of Soil and Water Conservation (2000-2007) and the Soil Science Society of America Journal (2010-2013), and organizing several provincial, national and international symposiums.

### President:

#### **Dr. Cynthia Grant**

Cynthia Grant has conducted research on nutrient management in crop production since beginning her M. Sc. in 1980. In that time, she has worked on a wide range of prairie crops (wheat, barley, flax, canola, field pea, sunflower, soybean, durum wheat, alfalfa) and a range of macro- and micro-nutrients (N, P, K, S, Mg, Ca, Zn, Cl, Se). She had published more than 95 scientific journal articles on nutrient management including invited review papers on nutrient management in diversified cropping systems for the American Society of Agronomy, on managing for low cadmium levels in crops for the International Conference on the Biogeochemistry of Trace Elements, on nitrogen management in reduced tillage systems for the European Journal of Soil Science and on P fertility management for the Canadian Journal of Plant Science. She has also co-authored chapters on soil fertility management in dryland agriculture and sulphur management for Soil Science Society of America monographs and has co-edited a book on Integrated Nutrient Management published by Haworth press. Dr. Grant has been recognized internationally for her work on nutrient management, being awarded the Interna-

tional Fertilizer Industry Association Award (Paris), the Robert E. Wagner Award (PPI-Atlanta), the Fluid Fertilizer Foundation Researcher of the Year Award (Phoenix) and the Manitoba-North Dakota No-Till Non-Farmer of the year award. She also is a member of the International Fertilizer Industry Association Advisory committee, and the North American advisory committee for the International Plant Nutrition Institute. She is the lead for the NAHARP Trace Element Indicator.

### **Eastern Councillor:**

#### **Dr. Bert VandenBygaart**

Bert VandenBygaart was awarded his Ph.D. in Soil Science in 1998 from the Department of Land Resource Science at the University of Guelph. At present he is a soil scientist in the Research Branch at Agriculture & Agri-Food Canada in Ottawa where he studies soil organic carbon cycling, the accounting of carbon in Canadian agriculture, and pedology and landscape processes. Dr. VandenBygaart defines, organizes and carries out investigations in the field of soil carbon and pedology in support of national research programs. He also utilizes existing and new techniques for quantifying changes in soil carbon storage from field measurements and through modeling approaches. Dr. VandenBygaart has written or co-authored 35 peer-reviewed research papers in national and international journals, along with 4 book chapters. Dr. VandenBygaart has been an Associate Editor of the Canadian Journal of Science since 2007 and is an adjunct professor at the University of Manitoba.

### **Graduate Student Representative:**

#### **Aimé Jean Messiga**

Aimé Jean Messiga is a Ph.D. student at Laval University (Quebec) and conducts his research at the Soils and Crops R&D Center, Sainte-Foy (Quebec), under the supervision of Drs. Noura Ziadi (Agriculture and Agri-Food Canada) and Léon-Etienne Parent (Laval University). He has an “Ingénieur Agronome” degree from Dschang University (Cameroon) and a M.Sc. in Soil Science from Ghent University (Belgium). His concerns about sustainable agriculture and the protection of the environment have oriented his research on the effects of tillage practices and nutrients budgets on soil phosphorus status in various long term agricultural systems including monoculture (corn) and crop rotations (corn/soybean). He uses mechanistic process-based modeling to study the dynamics of soil P using isotopic dilution techniques and radioactive  $^{32}\text{P}$  as such modeling could be useful to predict long-term changes in soil available P with agricultural practices.

### **Editor Canadian Journal of Soil Science:**

#### **Dr. Craig Drury**

Dr. Craig Drury is a Soil Biochemist with Agriculture & Agri-Food Canada in Harrow, Ontario. His research program focuses on developing soil and crop management practices which enhance nitrogen utilization efficiency and reduce nitrogen losses to the environment through leaching and denitrification. Dr. Drury has served as President (2005-2007) and Secretary (1999-2003) of the Canadian Society of Soil Science. He was an Associate Editor for the Canadian Journal of Soil Science (2001-2006) and is currently serving a second term on the editorial board for the journal Agriculture Ecosystems & Environment. Dr. Drury is an adjunct professor at the Northeast Institute of Geography and Agriculture Ecology (Chinese Academy of Science). He chaired/co-chaired international workshops on soil quality, conservation tillage, soil structure and agri-environmental indicators and has coordinated a CIDA sponsored soil conservation training session. He was a Guest Editor of the Special Issue of the CJSS which highlighted results from 10 of the Canadian Agri-Environmental Indicators. Dr. Drury is the lead for the NAHARP Residual Soil Nitrogen Indicator as well as the Indicator for the Risk of Water Contamination by Nitrogen. Dr. Drury has authored/co-authored 101 refereed journal publications and 16 book chapters including two chapters in the Canadian Soil Science Society methods book.

## Pedology Sub-committee Update

I was invited to present the work of the sub-committee (and of universities) at the recent meeting of the Canadian Land Resource Network in Guelph in the context of the future of pedology in Canada. As many of you will be aware, the recent decisions in Agriculture and Agri-Food Canada concerning the pedology group in AAFC have made it even more imperative that we develop alternate ways to keep pedology alive and growing in Canada. Certainly the need exists – other speakers at the meeting stressed the role of pedology in environmental consulting, the need for a broader, ecological basis for land classification in non-agricultural landscapes, and, perhaps most importantly, the need for enhanced instructional materials and approaches for teaching pedology in the university and college systems.

The major challenge the AAFC changes poses is the loss of institutional support for the process of revision – for example, a major change like the introduction of the Vertisolic order was supported by several meetings and correlation field trips to allow pedologists to jointly develop and refine their genetic concepts and associated morphological criteria. While change at this scale may not be possible in the current situation, there is certainly a recognition that change is needed, both in the Canadian System of Soil Classification itself and in the manual (the 3rd edition of the CSSC) used by pedologists in the field. The major areas where change is required identified thus far include the inclusion of descriptors and classification for human disturbed soils, an improved humus form classification, and modification to horizon descriptors where appropriate.

At the Guelph meeting last summer the sub-committee set a target of 2014 for a revised edition of the CSSC to be available to students and practising pedologists in Canada. Peter Uhlig (MNR Ontario) also suggested that the document containing the revision should also contain other related classification systems (wetlands for example) that are needed by pedologists in the field. Ideally revenue from the manual would flow to the CSSS and provide a comparable revenue stream to the manuals and dictionaries previously produced.

The major project of the pedology sub-committee at this moment is the special issue of the Canadian Journal of Soil Science on The Soils of Canada (discussed previously). The special issue of the CJSS will provide a summary of our current state of understanding about the soils of Canada. At the forthcoming CSSS/CSA meetings in Saskatoon (June 20 to 24) we will hold a pedology roundtable to both discuss the current state of our understanding and any gaps identified by the authors of the articles. There are also two fine pedology focused field trips being held in conjunction with the conference to further the discussions in the field. As well, the recent development of wikis has provided us with a readily used tool to facilitate collaboration on projects in the absence of face-to-face meetings, and we will work to develop a wiki for use by the sub-committee as we move these projects forward. I will report on the progress of wiki development at the pedology roundtable in Saskatoon, and I hope to see you there.

For more information on the work of the subcommittee contact:

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*Dan Pennock*

## What's new on the Canadian Society of Soil Science Website?

As you have likely noticed the CSSS website ([www.csss.ca](http://www.csss.ca)) has had a major overhaul thanks to some dedicated work by our Western Councilor Maja Krzic. Not only has the overall look and feel improved but the content has as well. There are now very useful links included which will lead you to some of the most useful resources available on soils in Canada. Links to provincial organizations now are listed, along with long pages of links to useful on-line education resources, soil science programs at Canadian Universities, long-term soil science-related experiments in Canada and international soil science societies. The CSSS career site is also linked along with an events calendar.

The website now puts a very bright light on our soil science society which should ultimately improve our ability to relay the importance of the soil resource to the society at large. Check it out!

Some useful links included at the CSSS website:

### ***Soil Resources***

[Soils of Canada](#)

[The Canadian System of Soil Classification, 3rd ed. Agriculture and Agri-Food Canada Publication 1646, 187 pp.](#)

[Canadian soil information system](#)

[GlobalSoilMap.net](#)

[Methods manual for forest soil and plant analysis. \(Y.P. Kalra and D.G. Maynard, Canadian Forest Service, Edmonton, Alberta, Canada\) 116 p.](#)

[Soil Survey Laboratory Methods Manual; \(Soil Survey Laboratory Investigations Report No. 42\)](#)

[Soils of Canada: Thematic Soil Maps. Agriculture and Agri-Food Canada](#)

### ***Canadian Soil Thin Section Collection***

### ***Soil Science Education***

[SoilWeb](#)

[Pedosphere.com](#)

[Virtual Soil Processes](#)

[Soil Orders of Canada](#)

[Land-use Impacts Tool](#)

[Soil Monoliths Collections at the University of Alberta](#)

[Smithsonian National Museum of Natural History exhibit "Dig it! Secrets of soil"](#)

[Natural Resources Conservation Service \(NRCS\) Conservation education material for teachers K-12](#)

## **A Letter from AIC President Doug Yungblut, AIC President:**

***March 26, 2010***

*To the Presidents of the Scientific Societies  
Scientific Journal Editors  
Scientific Journals Committee*

AIC has recently become aware that there is concern among some members of the Scientific Societies about the soundness of AIC's financial position, and consequently its ability to continue publication of our scientific journals in the future.

I want first to assure you that AIC's overall finances are sound and the scientific journals are financially stable. AIC's financial statements for 2009 will be completed soon and are available to you on request.

The Board's decision to end Myles Frosst's employment as CEO had no relationship to our financial position. We regret if a statement by staff may have led to a misunderstanding of AIC's situation.

Last week we sent you, the Presidents of the other Scientific Societies, and the Chair of the Scientific Journals Committee (SJC), a letter inviting you to make a nomination to the AIC Board of Directors. As noted in that letter, the AIC Board of Directors, and our staff, are committed to ensuring the long term success of the journals and to strengthening our ties with the Scientific Societies. Scanning of back issues has been completed, and staff are gathering information to present to the SJC on all options for a new web platform and manuscript submission system for the journals. We will proceed with moving to the new platform as soon as the SJC and AIC can assess the best option. We would welcome further discussion of any areas of concern, or suggestions, you might have.

*Sincerely,*

*Douglas Yungblut  
AIC President*

## **Unifying the Soil Science Community in Ontario**

### **Motivation**

Over the past 10 to 20 years there has been considerable change in the practice of soil science in Ontario, reflecting a trend observed in other Canadian jurisdictions. Of particular note, the capacity for leadership and cohesion that was once provided by federal and provincial ministries is waning. Moreover, our national body, the Canadian Society of Soil Science, has not traditionally functioned at a provincial level. This presents the need/creates the opportunity for an organizational framework in Ontario, which can provide a forum for engagement of individual practitioners of soil science, in the public or private sectors, and subsequently speak, with authority, on their behalf.

### **Ontario Soil Science Initiative:**

On March 10, 2010, a dozen soil specialists, representing the University of Guelph, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ontario Ministry of Natural Resources (MNR), as well as Agriculture and Agri-Food Canada (AAFC), met in Guelph. General discussion revealed the continuing need for coherence and rigor in the practice of soil science, both for the assessment of our soil resources, and the management of those resources to support society's goals. This includes the acquisition, /survey , modeling /interpretation, and mapping/delivery, of the soil information necessary to guide the use of Ontario's vast and diverse land resources, and the application of soil science to sustainable management of these resources. This includes ensuring the safe and secure production of food, fibre and fuel, while protecting lands, waters and maintaining general ecosystem health. In this regard, several specific issues were discussed: challenges of sharing soil (and related) information and knowledge, the establishment of an 'authoritative voice' on issues related to soil, and the succession of the next generation of soil professionals. Consequently, the group expressed a desire to identify and formally organize the soil community of practice in Ontario. There was recognition of other organizations such as the Soil and Water Conservation Society-Ontario Chapter, the Soil Conservation Council of Canada and the Ontario Soil and Crop Improvement Association which should be engaged in this process.

### **Moving Forward:**

Efforts to organize a mini-conference or workshop and tour in the fall of 2010 are underway. If you are interested and require further information please feel free to contact me:

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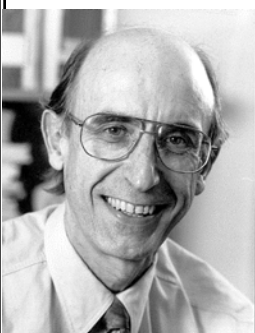
## **CSSS Members win NSERC PromoScience funding to enhance soil science education in high schools**

Congratulations to Maja Krzic, Gordon Price, Nathan Basiliko, Elyn Humphreys and Angela Bedard-Haughn for success in obtaining funding to improve the teaching of soil science to secondary school students from the NSERC PromoScience initiative. Here is a summary of the program:

“Referred far too often as simply “dirt”, soil is an under-appreciated and valuable natural resource that provides a vast array of essential ecosystem and agricultural functions. Increasing atmospheric deposition of pollutants and ever-intensifying land-use through mining, deforestation, wetland drainage, and intensive agriculture have degraded soils globally and continue to threaten this essential natural resource. Yet enrolment in soil science courses in undergraduate programs across the country has been declining in recent years. One of the reasons for this trend is due to lack of exposure of elementary and high school students to the study of soil science. To address this, we are aiming to introduce soil science concepts and potential career paths into high school science curricula across Canada. Our NSERC- funded initiative will include promoting learning about the importance of soil as a natural resource through the development of engaging, interactive online resources for both high school teachers (in the form of lesson plans) and students, and through development of an open-access web site. Our national collaboration includes faculty and graduate students from six Canadian universities with select high schools in the Greater Toronto Area and Vancouver slated to be initial “test markets” for implementing and improving the educational resources. The web site will showcase a variety of Canadian research projects that address a wide range of land-use impacts on soil and illustrate career paths of soil scientists. The estimated number of students to be reached is about 5000 per year. This project will be carried out in three annual phases with a projected deadline for the final product by December 2012. Upon its completion, the web site will be administered and maintained by the CSSS.”

### ***CSSS In Memoriam***

CSSS has lost two eminent scientists recently:



**Professor Emeritus  
Beverley D. Kay**  
January 14, 2010  
Department of Land Resource  
Science  
University of Guelph



**Professor Guy Mehuys,**  
February 6, 2010.  
Department of Natural Resource  
Sciences (Soil Science)  
McGill University

A two-time graduate of Ontario Agricultural College with a PhD from Purdue, Bev joined Guelph’s soil science faculty in 1969 and served as chair of the department of Land Resource Science from 1983 to 1994. Bev became a fellow of the Canadian Society of Soil Science in 2001 for his outstanding contributions to the field of soil science.

Guy was a professor at McGill University and will be greatly missed by all his colleagues and students. The McGill University Flag was lowered Friday, February 12, 2010, in his memory.



## **AIC International Program**

### **International Twinning Partnership Program**

Here is the link for the different projects run by the AIC to partner Canadian and developing country professional societies:

<http://www.aic.ca/international/itpp.cfm>

From the website:

“The mandate of AIC's International Twinning Partnership Program (ITPP) is to establish long-term relationships of five to nine years with partners in developing countries. This allows adequate time for the development of effective working relationships, thorough analysis of needs and resources, and the planning and implementation of projects designed to ensure sustainability.”

The Vietnam, Sri Lanka and Ethiopia projects link the CSSS with society counterparts in these countries.

Recent photos from Ethiopia for which Sam Gameda is a Canadian Coordinator:



Please check out the website and forward on to interested parties!!

**Transfers and Transformations: Our Evolving Biosphere  
CSSS 2010 Annual Meeting, Saskatoon Saskatchewan  
June 20 to 24, 2010**

<http://www.usask.ca/saskatoon2010/Saskatoon2010/Home.html>

**Upcoming Conferences**

**Greenhouse Gases and Animal Agriculture Conference - Oct. 3–8, 2010**

October 3–8, 2010, Banff, Alberta

<http://gga2010.org/>

**19<sup>th</sup> World Congress of Soil Science**

International Union of Soil Science

Brisbane, Australia

1-6 August 2010

<http://www.19wcss.org.au/>

**Soil Science Society of America Joint Conference with ASA and CSSA**

2010 International Annual Meetings

31 Oct. – 4 Nov. 2010-04-06 Long Beach, California, U.S.A.

<https://www.acsmeetings.org/>

**4th International Symposium on Phosphorus Dynamics in the Soil-Plant Continuum (ISPDSPC)**

September 19 — September 23

Beijing Friendship Hotel, Beijing, China

<http://isp4.cnm.org.cn/>

**CMOS/CGU Joint Congress. May 31 to June 4, 2010 in Ottawa, Ontario**

44th Annual Congress of the Canadian Meteorological and Oceanographic Society (CMOS) and the 36th Annual Scientific Meeting of the Canadian Geophysical Union (CGU)

<http://cmos.ca/congress2010/indexe.html>

**65th SWCS International Annual Conference. July 18-21, 2010**

65th SWCS International Annual Conference

July 18-21, 2010

St. Louis, Missouri

[http://www.swcs.org/en/conferences/2010\\_annual\\_conference/](http://www.swcs.org/en/conferences/2010_annual_conference/)

**9th International Rangeland Congress. April 2-8, 2011**

9th International Rangeland Congress

April 2-8, 2011

Rosario, Argentina

[www.irc2011.com.ar](http://www.irc2011.com.ar)

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