



NEWSLETTER

CANADIAN SOCIETY for HORTICULTURAL SCIENCE
SOCIÉTÉ CANADIENNE DE SCIENCE HORTICOLE

Your executive / Votre exécutif

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Vice President	<i>David Percival, NS</i>	<i>Vice-président</i>
Secretary-treasurer	<i>Denis Charlebois, QC</i>	<i>Secrétaire trésorier</i>
Western representative	<i>David L. Ehret, BC</i>	<i>Représentant de l'ouest</i>
Prairie representative	<i>Bob Bors, SK</i>	<i>Représentant des Prairies</i>
Central representative	<i>vacant</i>	<i>Représentante du centre</i>
Eastern representative	<i>Sylvie Jenni, QC</i>	<i>Représentante de l'est</i>
Past President	<i>Yves Dejardins, QC</i>	<i>Président sortant</i>

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PRESIDENT'S CORNER



Dear colleagues,

Greetings to everyone from your executive committee. We wish you a great productive summer filled with sun and success.

I am looking forward to our next annual meeting in Saskatoon and hope to see you there. Drs. Tanino and Bors worked very hard and we are going to have a fun meeting that includes two sessions with selected invited speakers, a tour, awards and AGM. Thanks to those who nominated students for travel awards.

Visit www.plantcanada.ca/2007.htm for information on registration and hotel reservation. A CSHS get-together is also organized on Tuesday evening (June 12) right after CSHS Natural Product Forum with complimentary bus transportation and special dinner prepared by Dr. K. Tanino and Nair (Karen's spouse). Please forward a note to Karen (karen.tanino@usask.ca) if you plan to attend. Nair is a wonderful cook and I am sure you will enjoy his food and also his orchid collection, as well as many other plants/trees in his backyard and greenhouse. Bob Bors has also offered to provide dessert with his dwarf sour cherries and Haskap.

CSHS website – new initiative

In 2002 I created the CSHS web site and I have been maintaining it ever since. Many changes and modifications were done during the past several years including the addition of the following: a member list, a universal nomination form, a short history of the Western Canadian Society for Horticulture, and CSHS Constitution. A section was also added under "Opportunity" for advertising, which was popular and also brought some income back to the Society. The awards section of the web site was another initiative started in 2005 to acknowledge and increase the visibility of the members who were honored locally, nationally and internationally. We were also able to attract corporate members by offering increased visibility of their activities under "corporate membership" link. There is still more to add in order to complete the web site. One of the most important parts is the history and achievement of the executive committee and members since the establishment of the Society. Recently I proposed a new initiative to add a section on the history of the CSHS and with the help of Evans Estabrooks (EE) it is now on its way. Our plan is to add as much information as possible about the past executive members and their achievements for the Society during their term along with a photo and possible link to text and a web site. The "under construction" link is now posted under www.cshs.ca/cshshistory and we would appreciate it if you could visit and send us any missing information, text, photo etc. either to Khanizadehj@agr.gc.ca or enebrooks@primus.ca. The received information will be edited and posted with an acknowledgment.

Shahrokh Khanizadeh, Ph.D.
President of CSHS
khanizadehs@agr.gc.ca

MESSAGE FROM THE SECRETARY-TREASURER



Bonjour.

The next CSHS annual meeting is only a few weeks away. Thanks to the efforts of the organizing committee, this meeting will have a lot to offer to our members as can be seen under “Plant Canada 2007 – Saskatoon” section of this Newsletter.

Probably the nicest thing about being the secretary of our Society is that, once a year, you have the opportunity to encourage deserving students and underline excellence in research. As mentioned in our last Newsletter, we have made changes in the attribution of our awards. Your executive has decided to select 2 outstanding papers published in the Canadian Journal of Plant Science. Contrary to previous years, there will no longer be a distinction among the various categories such as fruit and vegetable or horticulture as we use to make and there will be no prize money attached to these awards. Also, we have decided to name one of our travel awards the Macoun-Hill graduate student award.

2007 Macoun-Hill Graduate Student Travel Award – Congratulation to Ms. Ajit Pal Kaur Joshi, a Master’s degree student at the Department of Environmental Science, Nova Scotia Agricultural College. Ajit has been selected to receive this year Macoun-Hill graduate student travel award. She works under the co-supervision of Dr. H.P. Vasantha Rupasinghe and Dr. Nancy Pitts. A certificate along with a cheque to the amount of \$400 will be presented during our meeting in Saskatoon.

2006 Best paper awards – This year CSHS best paper awards go to:

Botha, E.J., Zebarth B.J. and Leblon, B. for their paper “Non-destructive estimation of potato leaf chlorophyll and protein contents from hyperspectral measurements using the PROSPECT radiative transfer model.” published in CJPS 86: 279-291;

and to:

Westerveld, S.M., McKeown A.W., and McDonald, M.R. for their paper “Distribution of nitrogen uptake, fibrous roots and nitrogen in the soil profile for fresh-market and processing carrot cultivars.” published in CJPS 86: 1227-1237.

Congratulation to all.

2007 in numbers

The year 2006 was marked with an increase in membership. Our Society now has 121 members in Canada plus 2 members outside the country. This is a 16% improvement over 2006 (Table 1). This increase was mainly felt in the “regular member” category with 24% more members (Table 2). These numbers are encouraging but we can do better. For instance, students only represent 13% of our members, less than “life” or “retired” members. This number is far below the potential representation of that group considering the enrolment in the various schools offering horticulture in their curriculum.

Let me once again call upon all our members to send me the name and coordinates of staff members in all our Canadian institutions offering horticulture. Our goal is to set a database that the Society will use to send relevant information such as publicity flyers, conference information, and call

for award nominations.

A big event went almost unnoticed last year. Our Society reached the venerable age of 50 years in 2006. I am calling once more upon all our members to help me come up with a birthday present worth this event. We need everybody's help in producing a poster and a flyer that we will use to advertise the Society everywhere we see fit. I need design propositions, pictures, slogans, drawings that might be useful. Any suggestion will be appreciated.

Table 1. Membership status per province

Province	June 2006	June 2007
Alberta	6	6
British Columbia	13	14
Manitoba	4	4
New Brunswick	4	6
Newfoundland	3	4
Nova Scotia	22	24
Ontario	30	36
P.E.I.	3	3
Quebec	17	19
Saskatchewan	3	5

Table 2. Membership distribution by category

Category	2006	2007
Corporate	2	2
Life	23	23
Regular	50	62
Retired	17	20
Student	14	16

Thanks also to all our contributors.

Denis Charlebois, Ph.D.
 Secretary-treasurer of CSHS
charleboisd@agr.gc.ca



**Do not forget to send us your:
 job offers, published papers, posters,
 presentations, questions, suggestions, nominations and
 any other relevant information that could be of interest to our members
 The CSHS web site and Newsletter are there for you.
 Use them often!**

PLANT CANADA REPORT 2005-2006

April 20, 2007

President: H. Deep Saini
Secretary: Gavin Humphreys
Treasurer & Past President: Carol Peterson

Member societies and their representatives on the Board of Directors:

Canadian Botanical Association (CBA) www.uoguelph.ca/botany/cba/

Christian Lacroix; lacroix@upei.ca

Vipen Sawhney; vipen.sawhney@usask.ca

Canadian Phytopathological Society (CPA) www.cps-scp.ca

Bruce Gossen; gossenb@agr.gc.ca

Jim Menzies; jmenzies@agr.gc.ca

Canadian Society of Agronomy (CSA) www.agronomycanada.com

Gavin Humphreys; ghumphreys@agr.gc.ca

Tom Bruulsema; tom.bruulsema@ppi-ppic.org

Canadian Society for Horticultural Science (CSHS) www.cshs.ca

Shahrokh Khanizadeh; khanizadehs@agr.gc.ca

David Percival; Percival@nsac.ns.ca

Canadian Society of Plant Physiologists (CSPP) www.cspp-scpv.ca

Rob Guy; Rob.Guy@ubc.ca

Peter Pauls; ppauls@uoguelph.ca

Canadian Weed Science Society (CWSS) www.cwss-scm.ca

Anne Légère; legerea@agr.gc.ca

Len Juras; ltjuras@dow.com

The membership of Plant Canada remained stable at six societies listed above. After leading Plant Canada for five of its formative years, Carol Peterson and Paul Cavers finished their terms in 2005 as President & Treasurer and Secretary, respectively. Deep Saini, Gavin Humphreys and Carol Peterson were elected President, Secretary and Treasurer (Past President), respectively, at the 2005 Board meeting in Edmonton. Yves Desjardins, Richard Martin, Denise Maurice and Yousef Papadopoulos also completed their terms on the Board of Directors.

Revenues from "Plant Canada 2005" meeting:

The Plant Canada 2005 meeting in Edmonton, which was a resounding success (reports distributed earlier), generated a net profit of \$34,264.48. The member societies agreed to allow Plant Canada to regain \$5,000 of this profit to carry out its basic operations, and the remainder was shared among member societies in proportion to their registrants at the meeting.

Financial status of Plant Canada:

Plant Canada advanced \$3,000 to the organizers of Plant Canada 2007 meeting for "seed money". The original expectation that this advance would be recovered from the revenues generated by the meeting has been dampened by the low registration to date. The federation's bank balance as of April 23, 2007 was \$2,086.04, after paying the above amount to the meeting organizers. A current financial report from the Treasurer will be presented at the Board meeting in Saskatoon.

Future meetings:

2009: The “Plant Canada 2009” meeting will be held in Halifax, Nova Scotia. The Canadian Society of Agronomy will lead the arrangements for this meeting, and Yousef Papadopoulos (papadopoulos@agr.gc.ca) is the current contact person. The CBA, CPS, CSHS, CSA and CSPP have expressed intentions to participate in this meeting whereas CWSS is yet uncertain about its participation.

Post-2009 meetings: Several member societies have expressed reservations about the sustainability of a fixed two-year cycle for Plant Canada meetings. Several societies have long-standing arrangements to meet periodically with other organizations (Canadian or US) that are not members of Plant Canada. This would interfere with Plant Canada meetings unless a more flexible schedule is established. Discussions among Board members through email and a conference call indicate a general support for adopting a flexible schedule. This issue would be discussed and decided upon at the Board meeting in Saskatoon in June 2007.

H. Deep Saini, Ph.D.
President of Plant Canada



To all members: Your help is needed to carry on various tasks for your Society such as: contribute to your Newsletter, nominate members for the various awards, submit Viewpoints, Opinions, evaluate posters and oral presentations at our annual meeting, help organize meetings, submit ideas for our new poster and the list goes on and on.

If you are interested in any of the above, contact myself at charleboisd@agr.gc.ca or Shahrokh at khanizadehs@agr.gc.ca.

PLANT CANADA 2007 - SASKATOON

Plenary and Other Special Sessions with Invited Speakers

I. Natural Products: Biology, Chemistry, and Application

Moderators: Gordon Gray and Soledade Pedras

- Natural Product-Based Insecticide Development: Spinosad, Spinetoram, and the Future – Paul Lewer, Dow AgroSciences
- Flavonoids – Beyond Plant Pigmentation – Erich Grotewold, Ohio State University
- Associating Gene Discovery to Biochemical Function in the Discovery of Natural Product Pathways – Vince DeLuca, Brock University

II. Plant Health Networks: The International Experience

Moderator: Bruce Gossen

- The US National Plant Diagnostic Network: Critical Infrastructure to Protect Natural and Agricultural Plant Systems – Jim Stack, Kansas State University
- USDA National Plant Protection Laboratory Accreditation Program (NPPLAP): Regulatory-related Testing and Networked Plant Health Diagnostic Laboratories – Laurene Levy, United States Department of Agriculture
- Plant Health Networks for Diagnostics, Surveillance and Research: The Australian Approach – Paul Pheloung, Department of Agriculture, Fisheries, and Forestry, Australia
- Canadian Plant Health Expertise and Capabilities: Networking for the Future – Nora Nishikawa, Canadian Food Inspection Agency

III. Designing a New Agri-food Industry (*Sponsored by Saskatchewan Wheat Pool*)

Moderators: Coreen Franke, Mark Kuchuran, Adrian Johnston

- Current Agricultural Trends and Unlocked Potential of Canadian Agriculture –The Honorable Mark Wartman, Minister of Agriculture, Province of Saskatchewan
- Trends, Opportunities and Challenges for Agriculture as They Relate to the Emerging Bio-economy – Ashley O’Sullivan, Ag-West Bio

NOVEL PLANT PRODUCTS ON THE HORIZON

- Agriculture as a Solution Provider to Health: The Flax Canada 2015 Initiative – Kelly Fitzpatrick, Flax Canada
- The Good We Get From Grain – Mark Pickard, Infra Ready Products
- Enhanced Phytosterol Ester Biosynthesis in Seed Oil – Jitao Zou, National Research Council of Canada Plant Biotechnology Institute

- Balancing Product Safety and Product Quality from Laboratory to Pilot Plant– Ashraf Abdellatif, Canagra Technologies
- Biodiesel Opportunities – Martin Reaney, University of Saskatchewan

INNOVATIVE PLANT PRODUCTS: JOURNEY FROM RESEARCH TO COMMERCIALIZATION AND FUTURE OPPORTUNITIES

- Maximizing the Value of Canola Protein Products: The Problem, The Solution and The Opportunities – David Maenz, MCN Bioproducts Inc.

IV. Communicating Plant Science

Moderators: Mary Leggett, Jill Thomson, Karen Bailey, Bill Brooks

- The Future of Science in Education – Janet McVittie, University of Saskatchewan
- Biotech Week: A National Perspective – Janice Tranberg, Ag-West Bio
- How to Write and Speak About Science to Nonscientists – Michael Robin, University of Saskatchewan

V. CBA Luella K. Weresub Mycology Evening Lecture

Moderator: Jim Traquair

- Discovery and Development of Microbial Herbicides- Research at the Interface of Art and Science – Gary Peng, Agriculture & Agri-Food Canada, Saskatoon

VI. CSHS Organic Horticulture Forum

Moderator: David Ehret

- Organic Horticulture Panel Discussion – Brenda Frick, Tom Forge, Martine Dorais, Gerry Neilson, and Robert Prange

VII. CHSH Natural Products Forum

Moderator: Shahrokh Khanizadeh

- Exploring Native Canadian Plants for Human Health – Rong Cao, Agriculture & Agri-Food Canada, Guelph

VIII. CSA- AAFC GAPS Meeting

Moderators: Bruce Coulman and Chantal Hamel

- Nitrogen Cycling: Reducing Losses from Agricultural Systems – Keynote by John A. MacLeod and Mark Grimmett, Agriculture & Agri-Food Canada, Charlottetown
- Behaviour and Fate of Phosphorus in Soil: Changing Concepts & Research Perspectives of Soil Phosphorus Chemistry and Fertility – Keynote by Tiequan Q. Zhang, Agriculture & Agri-Food Canada, Harrow

- Soil Food Web Structure and the Use of Nematodes as Indicators – Keynote by Tom Forge, Agriculture & Agri-Food Canada, Agassiz
- Immediate and Residual Effects of Swine manure and Compost on Soil Phosphorus Fractions in a Clay Loam Soil Under Corn-Soybean Rotation – Arunah Herath, T.Q. Zhang, C. Hamel, C.S. tan, T. Welacky, and M.J. Goss, Agriculture & Agri-Food Canada (Harrow and Swift Current) and University of Guelph
- P Fertilization Influences Biological Interactions in Forage Stands – Atul Nayyar, C. Hamel, T. Forge, F. Selles, and P. Jefferson, Agriculture & Agri-Food Canada, Swift Current
- Long-term Effects of Fallow and N and P fertilization on Soil fertility, Microbial Activity, and Plant Growth – Chantal Hamel, B. Zentner, and F. Selles, Agriculture & Agri-Food Canada, Swift Current
- The Impact of Cropping Systems with Differing Intensities of Grain legumes on Soil Quality, Crop Rotation and Nitrous Oxide Emissions – Guy P. Lafond, H. Hunter, R. Lemke, N. Lupwayi, and W.E. May, Agriculture & Agri-Food Canada, Indian Head
- Changes in Soil Biological Properties Resulting from the Long-term Use of Dairy Slurry as a Primary N Source for Tall Fescue Production – Shabtai Bitman and T. Forge, Agriculture & Agri-Food Canada, Agassiz
- Characterization and Comparison of Fungal and Arbuscular mycorrhizal Communities Following Various P Fertilization in a Maize-Soybean Rotation– Marie-Soleil Beaugard, T.Q. Zhang, C. Hamel, and M. St.-Arnaud, University of Montreal and Agriculture & Agri-Food Canada (Harrow and Swift Current)

Society Sessions with Invited Speakers

CSPP Natural Products

Moderator: Gord Gray

- Suberin: Structure, Function and Biosynthesis – Mark A. Bernards, University of Western Ontario
- Dissecting the Nicotine Biosynthetic Pathway Using Gene Slicing – Jonathan Page, National Research Council of Canada, Plant Biotechnology Institute
- Regulation of Isoprenoid Metabolism in Lavender – Soheil S. Mahmoud, University of British Columbia, Okanagan Campus

CSPP Phloem and Long Distance Signalling

Moderator: Gord Gray

- How Do Molecules Get Into the Phloem? – Robert Turgeon, Cornell University
- Regulation of Cell-to-Cell and Long-Distance RNA Trafficking – Biao Ding, Ohio State University

- Phloem Structure in *Eriophorum vaginatum* Accommodates Efficient Nutrient Recycling in Nutrient-Poor Wetlands – Ewa Cholewa, Nipissing University

CBA Floristics for the Future

Moderators: Tim Dickinson and Deborah Metsger

- Biodiversity and Floristics: Gathering Data to Answer Big Questions – Anne Bruneau, University of Montreal
- Oil and Water? Geospatial Technologies, Taxonomy and Collection Databases – Brian Klinkenberg, University of British Columbia
- Building on Existing Resources: Onwards, Upwards, Downwards, and Sideways – Mary Barkworth, Utah State University
- Panel Discussion on the Future of Floristics– Bruce Ford, University of Manitoba

CBA Ontogeny of the Flower: The Next Generation

Moderators: Usher Posluszny and Rodger Evans

- Keys to Innovation: Ontogenetic Avenues to Floral Specialization – Larry Hufford, Washington State University
- Thinking Outside the MADS-box: Development of Inflorescence and Flower in an Evolutionary Perspective – Matyas Buzgo, University of Florida
- MADS-box Genes: A Key to Understanding Rosaceae Flowers? – Rodger Evans, Acadia University

CPS Linking Plant Pathology with Industry

Moderator: Simon Shamoun

- University-Industry Research Partnerships: The Good, The Bad, and The Delightful – Zamir Punja, Simon Fraser University
- The BioMal® Story: A Legacy to Government-Industry Partnerships – Karen L. Bailey¹ and Mary Leggett², Agriculture and Agri-Food Canada Saskatoon 1, Philom Bios Inc. 2
- From the Forest to the Lab Bench and Back Again: The Cooperative Venture to Launch the Biocontrol Fungus *Chondrostereum purpureum* – W. Hintz¹, S.F. Shamoun² and P. de la Bastide¹, University of Victoria¹ and Natural Resources Canada-Canadian Forestry Service²
- The Role of Industry in Facilitating the Commercialization of Biopesticides – Pam Marrone, Marrone Organic Innovations Inc.

CPS Emerging Plant Disease Epidemics

Moderator: Michael J. Celetti

- Introduction: Global Perspectives on the Importance of Emerging Plant Diseases – Michael J. Celetti 1 and Greg Boland 2, Ontario Ministry of Agriculture, Food and Rural Affairs¹ and University of Guelph²
- Emerging Diseases in Canadian Forests – Richard Wilson, Ontario Ministry of Natural Resources
- Emerging Diseases of Horticultural Crops in Canada – Gayle Jespersen and Siva Sabaratnum, BC Ministry of Agriculture & Lands
- Emerging Diseases of Field Crops: Rusts, Clubs, Spots, Staggers and Blasts – R.A.A. Morrall 1, R.J. Howard 2, P.G. Pearse 3, B.D. Gossen 4, and D.A. Kaminski 5, University of Saskatchewan¹, Alberta Agriculture, Food and Rural Development 2, Saskatchewan Agriculture and Food 3, Agriculture & Agri-food Canada 4, Manitoba Agriculture, Food and Rural Initiatives 5
- The Canadian Plant Health Response to Emerging diseases: What Role Does CFIA Play? What Makes an Emerging Disease a Quarantine Pest? – Michael Wood, Canadian Food Inspection Agency

CSHS Natural Products for Horticultural Crops

Moderator: Shahrokh Khanizadeh

- Distribution and Antioxidant Properties of Apple Flavanoids – Vasantha HP Rupasinghe, Nova Scotia Agricultural College
- Novel Techniques to Improve Functionality of Horticultural/Foods and Food Ingredients – Hosahalli Ramaswamy, McGill University
- Food with Added Physiological Functional: Facts and Fallacies – Peter J Jones, Richardson Centre for Functional Foods and Nutraceuticals

CSHS Organic Horticulture: Separating Fact from Fantasy

Moderator: David Ehret

- Organic Production of vegetables: State of the Art and Challenges – Martine Dorais, Agriculture & Agri-Food Canada, Quebec
- Organic Fruit Production: Managing Reality and Perception – Gerry Neilson AAFC Summerland
- Are Organically-produced Fruits and Vegetables Safer and More Nutritious than Conventionally-produced Fruits and Vegetables?: A Review of the Literature – Robert Prange, Agriculture & Agri-Food Canada, Kentville

CWSS/CBA Plant Ecology and Invasive Species

Moderators: Paul Catling & David Clements

- Prioritizing Exotic Species Management Using a Survey, Monitoring and Modeling Framework – Lisa J Rew, Erik Lehnhoff and Bruce D Maxwell, Montana State University

May 2007

- Predicting the Invasiveness of Exotic Plants in Natural Areas in Manitoba – Rafael Otfinowski and Norm Kenkel, University of Manitoba
- Ecological Aspects of Control of Invasive Alien Plants in Canada's Western Prairies – Scott Wilson, University of Regina
- Issues that Weed Managers Have to Deal with at the Provincial Level, Including Ecological Issues – Dan Cole Alberta Agriculture, Food and Rural Development
- Plant Community Response to Herbivory and Disturbance: Lessons for Restoration of Garry Oak Ecosystems – Emily Gonzales 1 and David Clements 2 , University of British Columbia 1 and Trinity Western University 2
- The roles and limitations of ecology in managing invasive alien plants – Brendon Larson, University of Waterloo

CSA Progress in Organic Cropping Systems

Moderator: Adrian Johnston

- Organic Cropping in the Semi-Arid Prairies: Opportunities, Challenges and Progress – S. Brandt, E. Johnson, S. Malhi, G. Thomas and O. Olfert, Agriculture and Agri-Food Canada, Saskatoon
- Soil-plant interactions in long- term organic cropping systems – Martin Entz, University of Manitoba
- Economic and Social Impacts of Organic Production Systems – Rod McCrae, Brenda Frick* and Ralph Martin, Organic Agriculture Centre of Canada.

CSA Emerging Barriers to Marketing Crops

Moderator: Brian Rossnagel

- The Good, the Novel and the Bad – Gordon Rowland, Crop Development Centre, University of Saskatchewan
- Challenges for the Export of Canadian Crops – Peter Burnett, Canadian Grain Commission
- The Changing Market for Potatoes: Challenges for the Development and Introduction of New Varieties – Richard Tarn, Agriculture and Agri-Food Canada, Fredericton

PLANT CANADA 2007 – CSHS GET TOGETHER

On Tuesday evening (June 12) there will be a special dinner prepared by Dr. Karen Tanino right after the forum. Dr. Bob Bors has also offered to provide dessert with his dwarf sour cherries and Haskap. Complimentary bus transportation will also be provided. It will be a fun evening and there will be no charge for this CSHS get together but we need to know the number of guests. So **don't forget to send a note to Karen Tanino** (karen.tanino@usask.ca) if you wish to attend.



CSHS presents TWO sessions of *Organic Horticulture*

Separating Fact from Fantasy

www.plantcanada.ca/2007



1
Wednesday, June 13
Gallery A, TCU Place
17:00 - 18:00

Forum and Panel Discussion

Moderator: David Ehret, Agriculture and Agri-Food Canada

Panel Participants:

Brenda Frick, Organic Agriculture Centre of Canada, Saskatoon
Tom Forge, Agriculture and Agri-Food Canada, Agassiz
Gerry Neilsen, Agriculture and Agri-Food Canada, Summerland
Robert Prange, Agriculture and Agri-Food Canada, Kentville
Martine Dorais, Agriculture and Agri-Food Canada, Quebec City



Thursday, June 14
Gallery A, TCU Place
8:30 - 10:00

Invited Speakers

Moderator: David Ehret, Agriculture and Agri-Food Canada

Organic production of vegetables: State of the art and challenges

Martine Dorais, Agriculture and Agri-Food Canada, Laval University, QC

Dr. Dorais will review recent research results on the importance of soil properties, fertilizers and irrigation management on soil activity, plant growth and environmental health, as well as on product nutritional value and safety. Species and cultivar selection, grafting, and plant growth promoters will also be discussed. Dr. Dorais will describe the new challenges of a global market as well as the increasing public awareness of the health attributes of food. New prospects for future research, with emphasis on the AAFC research program, will be discussed.



Organic fruit production: Managing reality and perception

Gerry Neilsen, Agriculture and Agri-Food Canada, Summerland, BC

Dr. Neilsen will cite examples from fruit crops including small fruit, wine grapes and tree fruit where producers are rising to the organic challenge. Emphasis will be placed upon the use of 'organic-friendly' cultivars, soil amendments and mulches, non-herbicide weed control and organic-compatible insect and disease control strategies. Approaches will be assessed relative to effectiveness and environmental impact. The presentation will conclude by identifying major limitations to organic production and illustrate promising research from AAFC programs.

Are organically-produced fruits and vegetables safer and more nutritious than conventionally-produced fruits and vegetables?

Robert Prange, Agriculture and Agri-Food Canada, Kentville, NS

The increasing consumption of 'organic' fruits and vegetables is partly due to the perception that 'organically-grown' fruits and vegetables are safer and have more nutritional value than their 'conventionally-grown' counterparts. This presentation will review the scientific information on the effect of organic production on major food safety factors, such as synthetic pesticides, nitrate, environmental pollutants, natural plant toxins, biological pesticides, pathogenic microbes and mycotoxins, and on food quality factors such as sensory attributes, nutritive values, and chemical constituents.



Natural products-Nutraceutical Functional Food



Symposium

Organizer: Shahrokh Khanizadeh - CSHS
Agriculture and Agri-Food Canada, Horticulture Research
Development Centre, St Jean sur Richelieu, Quebec

Dr. Vasantha H. P. Rupasinghe, Dept. Environmental Sciences, NS Agricultural College, Truro, NS, Canada.

Distribution and antioxidant properties of apple flavonols

Apples are rich in many health-enhancing constituents including dietary phenolics mainly flavonoids and phenolic acids. Over 60 different phenolic compounds have been identified from apples that consisted of sub-classes of flavonoids, mainly flavonols, flavanols, anthocyanins, and proanthocyanidins. Their presence in the peel and tissue and effect on human health will be discussed.



Dr. Hosahalli Ramaswamy, Dept. Food Science, McGill University, Ste Anne de Bellevue, Quebec, Canada.

Novel Techniques to Improve Functionality of Horticultural/ Foods and Food Ingredients

Many horticultural/plant products are consumed/used for their nutraceutical/functional values. This could range from simple addition of nutrients to the human diet to providing functionally ingredients for many applications. This presentation will examine the use of some novel processes such as high pressure processing, extrusion cooking and film casting techniques to effect improvements in the nutraceutical/functional properties of horticultural/plant foods and food ingredients.

Dr. Peter J. Jones, Richardson Centre for Functional Foods and Nutraceuticals, Dept. Food Science and Human Nutritional Sciences, University of Manitoba, MN.

Foods with added physiological function: Facts and fallacies

Functional foods provide additional physiological benefit beyond that of meeting basic nutritional needs. Such foods are similar in appearance to, or may be, a conventional food, are consumed as part of a usual diet, and are demonstrated to have physiological benefits and/or reduce the risk of chronic disease beyond basic nutritional functions. Despite several success stories in the functional foods arena, certain problem areas remain. In summary, functional foods are the direction of foods of the future, serving up new opportunities to improve population health.



Dr. Rong Cao, Food Research Program, Agriculture & Agri-Food Canada, Guelph, Ontario.

Exploring native Canadian plants for human health

The boundary between medicine and food is not always clear in many ancient cultures. Many plants have traditionally been used in both culinary and healing practices. Herbs, in particular have been shown the duo functionality. Scientific information on herbal medicines is limited, and the majority has been related to exotic plants.

There is a need in multidisciplinary collaborations among herbalists, botanists, chemists and other scientists, as introducing native plants into mass production require knowledge in environmental impact, genetic variability and the effects of other factors on the bioactive components. An overview of the needs & challenges of such an approach will be discussed.

Tuesday June 12th, 2007-8:30-10:00am & 1800-18:30pm - TCU Place

NEEDED SCIENTIST MENTORS FOR A YOUTH COMPETITION

At the Plant Canada meeting June 10-14, 2007, we are organizing a pilot project to hold a Saskatchewan Youth Science Journalism Competition.

We are looking for scientists working in the field of plant science to be interviewed by high school students who will put together a journalistic piece that will be submitted for judging. The University of Regina, Journalism School is providing the journal mentors for the students. The student's work will be judged and displayed at the Plant Canada meeting.

For more information contact Bruce G., Saskatchewan Youth Science Journalism Challenge School Poster, Science Journalism Challenge or visit <http://www.science-west.ca/Journalism/>

Dr. Bill Brooks

MEMORIAL

Hello PGRSA Colleagues and Friends

As many of you are aware, tragedy struck our extended PGRSA family last week. Jocelyne Couture-Nowak, the wife of Dr. Jerzy Nowak, Head of the Department of Horticulture at Virginia Tech University, was a victim of the events at Norris Hall.

Originally from Quebec and with family in Nova Scotia, Jocelyne Couture-Nowak was a much-loved French Teacher at VT, and was remembered at a service in Nova Scotia as a strong supporter of French language education for young and old. We learned that Jocelyne attempted to stop the gunman from entering her classroom but was killed along with several students.

Although our thoughts and prayers are with the Nowak family during this time, the PGRSA will be making a donation to a Memorial Garden Fund at Virginia Tech on behalf of our membership. VT is also setting up a French Scholarship in Jocelyne's memory.

If you would like to make a personal donation to one of these funds, we would invite you to visit the VT Hort website for further information or follow the link provided here www.hort.vt.edu/

Thank you for your concern and support during this most difficult time.

Most Sincerely,

Jeffrey Norrie, Ph.D., P.Ag., CPH
President, PGRSA
Acadian Seaplants Limited

REMEMBERING CHARLIE

Dr. Charles A. Eves of the Wolfville Nursing Home and formerly of Upper Canard, Kings County, NS passed away July 2, 2006. Charlie was born in Liverpool England in 1908 and emigrated to Canada in March 1926. In 1932 he received his B.Sc. from McGill (Macdonald College) and in 1933 attended Cambridge University on an IODE Overseas Scholarship before returning to McGill to receive his M.Sc. degree in 1937. In 2000 Charlie received an Honorary Doctorate from Dalhousie University and the Nova Scotia Agricultural College.

For over 40 years he was engaged in fruit storage research with the Canada Department of Agriculture and was a pioneer in research on Controlled Atmosphere Storage and the effect of mineral nutrition on post-harvest quality.

Following his retirement, Dr. Eves established post-harvest physiology laboratories in Yalova, Turkey (1972-73) and in Salvador, Bahia, and Brazil (1973-74) for the Food and Agriculture Organization of the United Nations.

Charlie Eves served with the Canadian Army (Royal Canadian Artillery) from 1939 to 1945 in the United Kingdom, Mediterranean and Continental Europe. During the 1950's and 1960's he maintained his military interests by serving in the West Nova Scotia Regiment (Militia) from 1950-61 (Commanding Officer, 1957-60).

Over the years Dr. Eves was active in many organizations, including the following: Canadian Society for Horticultural Science (President, 1972); President of Nova Scotia Institute of Agrologists; Director and Fellow of the Agricultural Institute of Canada; Acadia University Senate Member; and chairman of the Kings County Municipal School Board. In recent years Dr. & Mrs. Eves established the Canard Conservation Trust Fund at the Nova Scotia Agricultural College to provide a graduate and undergraduate scholarship annually for students focusing on the environment as it relates to agricultural practices.

Over the years I have known Charlie as a researcher and a supporter of many organizations including Macdonald College of McGill and NSAC.

While I was president of CSHS in 1991 and 1992, Charlie sent me a letter to enquire as to whether he could help establish a recognition award for horticulturalists. After some negotiation the post-harvest award for the best paper in CJPS was established. Charlie came up with the name Macoun-Hill Award as he wanted to recognize two of his professors/researchers for whom he had worked. The first Macoun-Hill Award was made in 1994 to Ms. Jennifer DeEll and Dr. Robert Prange for their 1993 paper "Postharvest physiological disorders, disease and mineral concentrations of organically and conventionally grown McIntosh and Cortland apples."

Charlie will always be remembered by me for his desire to share his knowledge with others and his dry British sense of humour.

Evans Estabrooks

CSHS MEMBER RECOGNITION

AAFC's Carrot Foliage Trimmer helps suppress Sclerotinia rot of carrots (SRC). *Kevin Sanderson, P.Ag., Crops and Livestock Research Centre, Agriculture and Agri-Food Canada, Charlottetown, PE*



One of the most devastating diseases of carrots is Sclerotinia, or white mold. Although it can be a problem in the field, the most noticeable impact is discovered once the carrots are stored. There, carrots can rot and become covered with a white mold which can easily be transferred to surrounding roots.

With no chemical means of control, research is crucial. Mary Ruth McDonald and Cezarina Kora at the University of Guelph first showed that when the carrot canopy was trimmed between the rows, the incidence of this disease may be reduced. In Prince Edward Island, Kevin Sanderson and Rick Peters recently demonstrated similar control of SRC grown in mineral soils. Trimming is most effective at the time of row closure. Trimming opens the canopy, reduces humidity and increases air flow within the canopy, which in turn removes ideal conditions for the development of the disease.

In 2006, Kevin received funding from the Pesticide Risk Reduction Strategies Initiative (Pest Management Centre) to develop a prototype trimmer. The majority of carrots grown in Canada are on a hilled system and there was no commercial unit available. "I made a design sketch in 2005 and knew someday we could build a workable unit" said Kevin.



One year later, Kevin and his team had designed and constructed a 'Carrot Foliage Trimmer' at the Harrington Research Farm just north of Charlottetown. In 2006, the trimmer was field tested in research trials and demonstrated to the Maritime carrot industry. We demonstrated that SRC could be reduced by as much as 80% with this technology. Trimming is an excellent disease management strategy for use in both commercial and organic carrot production.

The best part of this research is the uptake of new technology which uses an environmentally friendly mechanical means of disease management. Oxford Frozen Foods Ltd., located in Oxford, NS, is the largest carrot grower and processor east of the Mississippi. They are building a 9-row unit based on the Sanderson prototype for use on 500 acres of carrots in 2007 and up to 2000 acres in 2008. Kevin is also working with PEI growers and a grower in Wisconsin to build carrot foliage trimmers.